Critical review: action research

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Abstract

Action research aims to solve current practical problems while expanding scientific knowledge. A distinctive feature of action research is that the researcher deliberately conducts an intervention while at the same time studying the effects of the intervention. It involves collaboration with business people in real organizations. This is very different from most other research methods. Researchers who use other research methods usually try not to intervene or interfere. The results of this study are a review of several action research articles with an explanation of the findings of these articles along with the strengths and weaknesses of the research.

Keywords: Action research; reviews; data analysis
INTRODUCTION

Unlike other research methods, in which the researcher seeks to study organizational phenomena but does not change them, action researchers have an interest in creating organizational change as well as studying the process (Babüroglu & Ravn, 1992). It is highly oriented towards collaboration and change involving researchers and subjects. Action research is an excellent way to increase the practical relevance of business research. There are many definitions of action research; (Rapoport, 1970), defines action research as research that aims to contribute both to the practical problems of people in immediate problem situations and to social science goals by collaboration within a mutually acceptable ethical framework. Then (Clark, 1972), stated that action research is related to increasing knowledge. It is this aspect of action research that distinguishes it from applied social science or applied business research, where the aim is only to apply scientific knowledge but not to add to the body of knowledge, (Avison et al., 2001).

METHOD

The data obtained from the results of this study are qualitative data and quantitative. Qualitative data is data obtained and analyzed not in the form of numbers but described in words. Results review of manuscripts indexed by Scopus. Quantitative data is data obtained from the calculation of the numbers. Inapplicable perspective, action research developed terminology in used to every other method of collaborative participation, the terminologies for this technique such as motion research, participatory motion research, fundamental action research, action learning participant inquiry, practitioner inquiry, and cooperative inquiry, (Curtis & Burns, 2015) explicitly the frequent aspects to variability collaborative participation of action research above such as: undertake research to convey about advantageous change and enchantment in the participant's social situation; generate theoretical as well as practical understanding about the situation; enhance collegiality, collaboration and involvement of participants who are actors in the situation and most possibly be affected through changes; establish an attitudinal stance of persistent change, self-development, and growth.

RESULTS AND DISCUSSION

Action research process

(Baskerville & Myers, 2004), say that the essence of action research is a simple two-stage process. First, the diagnostic stage involves a collaborative analysis of the social situation by the researcher and the research subject. Theories are formulated about the nature of the research domain. Second, the therapeutic stage involves collaborative change. At this stage, changes are introduced and effects are studied. A more comprehensive model is given by (Susman & Evered, 1978). They suggest that action research can be viewed as a cyclical process with five phases: diagnosing, planning action, taking action, evaluating, and specifying learning. They argue that all five phases are necessary for a comprehensive definition of action research.

In the Susman and Evered model, the first phase, called diagnosis, involves identifying the main problem to be addressed within the host organization. The second phase, action planning, determines the organizational actions that should be taken to alleviate or overcome this problem. This planned action is guided by the action researcher's theoretical framework. The third phase, called action taking, implements the planned action. The fourth phase, evaluation, includes analyzing whether the planned actions are achieving the desired effects. The last phase, specifying learning, specifies what is learned during an action research project. This last phase can lead to the start of a new action research cycle, especially if the action research project is not successful. The Susman and Evered cycle processes are represented in the figure below:
Figure 1. Five elements of action research

(Elfen & Chisolm, 1993), menyarankan lima elemen yang perlu ada dalam penelitian tindakan, yaitu:
Choice of goals and values. Action research aims at scientific inquiry plus practical problem-solving. Action research is change-oriented and seeks to bring about change that has positive social value;
Contextual focus. As action researchers are concerned with solving 'real-world, practical problems, action research should focus on a wider context, as in case studies and ethnographic research;
Change-based data and common sense. Change-oriented action research requires data to help track the consequences of the intended change. Action researchers need to collect data systematically over time, and they need to interpret and understand this data;
Participation in the research process. Action research requires those who experience or 'have' real-world problems to engage actively with the researcher. This involves, at a minimum, the participants are involved in selecting the problem and supporting the search for a solution. They may also be involved with validating the results. Action research, by definition, is collaborative; and
Knowledge diffusion. For action research to be considered research, it must be written and disseminated according to the accepted canons of social science practice. This involves linking the topic with the existing research literature in an attempt to generate general knowledge. This is usually the task of the researchers alone.

Action research approach

There are three main types of action research: positivist, interpretive, or critical:
Positive action research. Positivist action research, sometimes called 'classical action research' (Elfen & Chisolm, 1993), sees action research as a social experiment and seeks to meet the requirements of positivist social science. Payne and Payne say that action research is primarily designed to provide empirical tests of possible solutions: 'Action research is a type of applied research which is essentially a social experiment, introduce some new policies and then monitor their effects' (2004: 9); Interpretive action research. Interpretive action research, called 'contemporary action research' by (Elfen & Chisolm, 1993), tends to rely on an interpretive and constructivist epistemology, ie social reality is
socially constructed. An example of this approach is (Greenwood et al., 1993), who argue that action research is always an emergent process, as it is largely controlled by local conditions; and

Critical action research. In education, there has been a strong movement to combine action research with (Habermas, 1984), critical social theory. Carr and Kemmis, for example, define action research 'as a form of self-reflective inquiry undertaken by participants in social situations to improve the rationality and fairness of their practices, their understanding of these practices, and the situations in which these practices are practiced' (1986: 162).

In addition to the three main types of action research, there are other types. One type of action research is called participatory action research, (Whyte et al., 1991). In participatory action research, practitioners are involved as subjects and research partners. As core researchers, practitioners have control over the research process, by setting their research agenda, helping to collect and analyze data, and controlling the use of the results. Participatory action research is very similar to collaborative practice research. Another type of action research is called action science. Action science emphasizes understanding the difference between practitioners' behavior (the theory used) and their beliefs.

Advantages and Weakness of Action Research
Excess
Help ensure that business research is practically relevant.

Weakness
It is very difficult for many people to do action and research; and
It is very difficult to conduct research that contributes to solving practical business problems while at the same time ending up with articles research that contributes to theory and can be published in research journals.

There is a tendency for action researchers to overestimate the importance of interventions in organizations and contributions to academic research. Action research tends to be riskier than other qualitative research methods simply because real-world projects can experience delays.

Sample of Action Research

Action Research Studies in Management Accounting
(Seal et al., 1999), undertook an action research project in management accounting, with a focus on supply chains. They find that existing work on supply chain performance was dominated by industry dynamics and the logistics literature

Action Research Studies in Marketing
Using the Internet for Customer Relations Management (O’Leary et al., 2004), say that many companies at that time had not fully utilized the interactive marketing capabilities of the Internet. Since very little academic research has been done to integrate Internet/database marketing for customer relationship management (CRM), the aim of their study was to develop a framework for integrating Internet and database marketing to help marketers improve CRM.

Leadership Action Research Studies
The 1990s saw a worldwide movement towards collaborative governance, collaborative public service provision, and collaborative approaches to addressing social problems. (Huxham & Vangen, 2000), look at collaborative leadership and what it takes to make things happen in collaborative endeavors.

Action Research Studies on Organizational Change and Managerial Sense-Making
(Lüscher & Lewis, 2008), conducted an action research study at the Danish Lego company. Through collaborative intervention and reflection, they seek to help managers understand the issues that arise as a result of a massive restructuring. This restructuring involved changing the nature of middle management at the company with Lego executives seeking to implement self-managed teams at every level.

Action Research in the Field of Information Systems
A special issue of the Quarterly MIS on action research was published in 2004 (Baskerville & Myers, 2004). As MIS Quarterly is a top research journal in information systems, all articles published
in this issue can be considered as examples of action research in a business discipline. This special issue describes several different types of action research. All articles suggest criteria by which their action research projects should be evaluated.

Critical Review of Paper

**Figure 2.** (Brones et al., 2014)

**Objectives:** This study examines the application of People Action Research to the systematic integration of an environmental perspective into industrial product innovation processes and projects. Applying Insider Action Research aims for a broader integration between top-down and bottom-up and soft and hard perspectives in the intersection of ecodesign and innovation and project management disciplines.

**Methodology:** The research design is based on action research and the specificity of the Action Research of the company's internal people to capture aspects of change and transition involving the two main action research cycles. A five-year longitudinal study was conducted in a Brazilian cosmetic company. The outcomes of this cycle were analyzed including the adjustment of green design tools and related applications and the views of various stakeholders on the challenges of the transition.

**Findings:** This paper describes the application of action research aimed at a faster learning loop in the field of sustainable innovation management. As a second contribution, an Ecodesign Transition Framework (ETF) is proposed, combining both technical and software sides. The proposed framework is structured on three levels (strategic, tactical, and operational), with two complementary perspectives of mature ecodesign patterns and transition pathways.

**Practical implications:** Action research leads to desired outcomes both on the applied side, with increased diffusion of ecodesign across enterprises, and on the research side, with ETF formulations and applications. Practitioners interested in sustainable innovation can follow ETF procedures, challenges faced lessons learned, and conclusions.

**Critical Reviews:** This research is an insider action research on sustainable product innovation across the company: Fabien Brones, Eduardo Zancul, and Marly M. Carvalho's eco-design transition framework. The purpose of this study is to discuss the application of insider action research to the systematic integration of environmental perspectives into industrial product innovation processes and projects. Applying people action research, it further aims at a broader integration between top-down and bottom-up and soft and hard perspectives at the intersection of the disciplines of eco design and
innovation and project management. The research design is based on action research, particularly on internal corporate action research to capture aspects of change and transition involving two main action research cycles.

This article describes an application of action research aimed at accelerating learning in the field of sustainable innovation management. Action research produces the desired results on both the implementation side, with improvements diffusion of eco-friendly designs on the enterprise, and the research side, with ETF formulations and applications. The resulting ETF brings a new perspective to integrate environmental considerations in the company's product innovation process. Simultaneously, a broader integration of sustainability criteria in business processes has progressed over the other trinomials comprising Business Management, Operations Management (OM), and Innovation Management.

From a business perspective, sustainability initiatives have evolved from initial efforts focused on internal operational efficiency to address strategic business issues, and research on people's actions in technological developments. The literature also points to the missing link between ecodesign and project management for the integration of sustainability in product development (Brones et al., 2014) and between traditional innovation and product development frameworks (Cooper, 2008); (Wheelwright & Clark, 1992) and sustainability perspectives (Abati et al., 1992), and (Zappi et al., 2015). To narrow the gap, this article aims to investigate the integration of environmental sustainability into industrial product innovation.

In addition, this study proposes a framework for greater integration between top-down and bottom-up perspectives of product-service design and narrowing the gaps among other disciplines, particularly innovation, project management, and green design. The Action Research (AR) methodology was chosen to study how to promote the holistic integration of ecodesign into the overall product innovation process of a Brazilian company. Insider Action Research addresses literature gaps to better relate recommendations on the ground to business realities. The resulting ETF brings a new perspective to integrate environmental considerations in a company's product innovation process. It sets the soft issues into consideration for the necessary transition towards such integration, consolidating and advancing previous theoretical views of ecodesign, with associated new practical implications.

If we look at the advantages and disadvantages of action research, the advantages of this article are that it can ensure the relevance of business at a practical level. The proposed framework is organized into three levels (strategic, tactical, and operational), with two complementary perspectives of the ecodesign pattern being defined, mature and transitional path, so it is hoped that it will be easy to apply in a practical business level.
**Objectives:** provide an understanding of action research methodologies, particularly their use in a marketing context.

**Methodology:** An action research methodology was adopted considering the uncertain knowledge about what service “improvements” really matter to the customer. There is also uncertainty about the process by which possible improvements can be reviewed and implemented. The strategic intent of action research is to bring about change in an organization, institution, business, or public relations.

**Findings:** A retrospective note of a market-oriented action research project in which the authors were involved is provided in the form of a summative evaluation of the methodology used. The status of research claims for action research in scientific publications was discussed and found to be problematic. Hermeneutic case research path is recommended as a solution. A link between action research as a methodology and internal marketing as a strategy is made. A conclusion was reached that the basis of market-oriented action research is “knowledge updating”. This is achieved through an iterative process of action and learning, facilitated by the relationships formed between those involved.

**Practical Implications:** This research contributes to this theoretical lead to practical considerations. Action research methodologies can be used to support internal marketing strategies and thereby develop customer awareness among employees.

**Critical Reviews:** This article uses an action research methodology given the uncertain knowledge of what service "fixes" really matter to customers. By market orientation, we mean the direction chosen in the external market and the organizational problems associated with it. So the purpose of this article is to provide an understanding of the action research methodologies used in a marketing context. In this way, the methodology used is made more explicit and accessible to other marketing applications.

What does action research strategy mean? This will divert attention from a critical examination of the methodological issues involved in action research. Of course, these stakeholder concerns arise in many types of change processes as well as action research. In other words, action research is a form of inquiry-based on the actions of its participants and their critical reflection on the consequences of their actions. In this way, learning occurs and is reinforced through the medium of research as a basis for further action. The idea is that staff involved in various service redesign activities will result in better service performance and thus complement the bank's marketing activities. (Ballantyne, 2004). Customer awareness is or should be the result of internal marketing activities, (Grönroos, 2000).

According to the evaluation results in this article, proper market-oriented action research needs to be alert to seven critical issues, including:
- Strategic intent involves bringing about positive change to the work processes in which the participants are involved, and the benefits flowing to the wider stakeholder community;
- The only pedagogical generalization about the “right steps” to take is that there should be an iterative cycle of participatory action and reflective learning, based on customer and competitor research input;
- Knowledge renewal at the organizational level begins with gaining access to a deep store of employee know-how and experience;
- Open and participatory project facilitation has an emancipatory effect that can challenge organizational culture in unexpected ways;
- The “research” component of action research essentially means research for projects, not research on projects;
- The status of knowledge claims for action research in the marketing community is part of a wider debate about what constitutes an acceptable theory outside the mainstream positivist science worldview; and
- The action research literature emphasizes participation in action and learning; however, this evaluative review has highlighted the need for quality relationships between individuals as a basis for that participation.

The advantage of this article is that the methodological evaluation results are based on one large-scale market-oriented project with more than 100 cycles spanning five years. Action research is a rubric for applied research of varying scope and scale. It should have application in many internal marketing contexts, particularly where there are conflicting knowledge claims across inter-functional
organizational boundaries, or between the organization and its market constituents; for example, in sales management teams, product development, service system redesign, supply chain management, and buyer/supplier partnerships.

CONCLUSION

Critical Review 1:
This study proposes a framework for greater integration between top-down and bottom-up perspectives of product-service design and narrowing the gaps among other disciplines, particularly innovation, project management, and green design. The Action Research (AR) methodology was chosen to study how to promote the holistic integration of ecodesign into the overall product innovation process of a Brazilian company. Insider Action Research addresses literature gaps to better relate recommendations on the ground to business realities. The resulting ETF brings a new perspective to integrate environmental considerations in a company's product innovation process. It sets the soft issues into consideration for the necessary transition towards such integration, consolidating and advancing previous theoretical views of ecodesign, with associated new practical implications.

Critical Review 2:
Action research is a form of inquiry-based on the actions of its participants and their critical reflection on the consequences of their actions. In this way, learning occurs and is reinforced through the medium of research as a basis for further action. The idea is that staff involved in various service redesign activities will result in better service performance and thus complement the bank's marketing activities.

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