Achieving accuracy, generalization-to-contexts, and complexity in theories of business-to-business decision processes

Arch G. Woodside [a,*], Roger Baxter [b,**]

[a] Boston College, United States
[b] Auckland University of Technology, New Zealand

ABSTRACT

This article describes field research methods that provide advances in developing accurate theories of business-to-business (B2B) decision processes. The article supports and extends prior work by Woodside (2010) that bridging qualitative and quantitative research method is possible to achieve accuracy, complexity, and generality across cases in B2B decision processes. As an aid in doing so, the article argues for the study of a few (n = 5 to 50) cases via case study research (CSR). The article defines CSR, and describes several CSR theories and methods that are useful for describing, explaining, and forecasting processes occurring in business-to-business (B2B) contexts. The discussion includes summaries of six B2B case studies spanning more than 60 years of research. This article advocates embracing the view that isomorphic theory of realities of B2B processes is possible via advances in CSR methods. The discussion advocates rejecting the dominant logic of attempting to describe and explain B2B processes by arms-length fixed-point surveys that usually involve responses from one executive per firm with no data-matching of firms in specific B2B relationships—such surveys lack details and accuracy necessary for understanding, describing, and forecasting B2B processes.

© 2013 Elsevier Inc. All rights reserved.

1. Introduction

This article points out how researchers of business-to-business (B2B) decisions can strengthen both the theoretical and the analytical basis of their research by broadening their range of research tools to include advances in case study research (CSR). As Hult (2011) points out, marketing researchers, including business-to-business (B2B) researchers, use an eclectic mix of theoretical bases for the understanding of phenomena. These theories include general-level theories of marketing, such as Hult's proposal of a marketing organization theory (MOT) and the Vargo and Lusch service-dominant logic (2004) proposal; general theories from other disciplines such as the work of economist Penrose (1959); and mid-level bridging theories such as the contemporary marketing practices (Brodie, Saren, & Pels, 2011).

Because B2B decision researchers are likely to continue to use a broad range of theoretical bases they will need a broader range of epistemologies and methodologies in future in order to investigate marketing phenomena in full depth using these theories (Nicholson, Lindgreen, & Kitchen, 2009). The application of Giddens (1979)

structuration theory is an example. Researchers apply structuration concepts to marketing problems (Vallaster & de Chernatony, 2006). Nicholson et al. (2009) propose structuration theory for wider application to relationship marketing to encompass multiple ontological paradigms and to cope with issues of time and space in longitudinal research. Structuration can also help account for both human agency and social structure, which would be beneficial at a fine-grained level of research (Hult, 2011) into the activities of the single human actor in a relationship (Baxter & Olesen, 2008).

Different general level theories, whether scholars use them individually or in blended forms that incorporate more than one theory or paradigm, can potentially inform marketing research in different ways. However, ontological and epistemological tensions may occur in adopting theories, particularly when they embrace a wide range of paradigms. For example, studies that use structuration often apply it with an interpretivist approach such as the work of Orlikowski (1992) that recognizes multiple realities, whereas marketing tends to look for "one reality", with realism as the predominant ontology (Healy & Perry, 2000). Nicholson et al. (2009) argue that structuration can cope with multiple paradigms. However, debate rages about this in the literature (e.g. DeSanctis & Poole, 1994; Sarason, Dean, & Dillard, 2006). The use of structuration may involve a conflict of paradigms and thus involve epistemological and hence methodological conflict.

These issues of possible incommensurability of paradigms may or may not present problems, but B2B decision researchers do need to consider them. They need to do so particularly when they blend theories

* Correspondence to: A.G. Woodside, Boston College, Carroll School of Management, Department of Marketing, 140 Commonwealth Avenue, Chestnut Hill, MA 02467, United States. Tel./fax: +1 617 552 3069/6677.
** Correspondence to: R. Baxter, Faculty of Business, AUT University, Private Bag 92006, Auckland 1142, New Zealand. Tel.: +64 9 921 9999; fax: +64 9 921 9629.
E-mail addresses: arch.woodside@bc.edu (A.G. Woodside), roger.baxter@aut.ac.nz (R. Baxter).

and paradigms because of the potential problems that blending brings (Okhuysen & Bonardi, 2011). Researchers certainly need to understand how these epistemological issues affect the best choice of methodologies to deal with differing paradigms, which is relevant to the focus of this article. Although an orientation towards the more positivist, objectivist, and quantitative approaches may have served marketing researchers well in the past, researchers will continue to need a wider range of techniques.

This article addresses some of the methodological issues and provides tools to deal with them. Even if researchers take the approach to research that there is "one imperfectly apprehensible reality" (Healy & Perry, 2000), they need to recognize multiple perspectives within that approach. Such recognition requires at least a multiple-respondent approach if not a multiple-technique approach, with triangulation of data sources. Advances in CSR can help to apply these approaches (Woodside, 2010).

Before moving on to discussion of CSR foundations and specific techniques in more depth, the article now discusses what CSR is. In doing so, the article principally takes realism's one-reality multiple-perspective view. Although this discussion will not address the deeper ontological and epistemological issues that the use of new and blended theories and lenses potentially brings, it does provide a rationale for moving to a wider range of methodologies and analysis techniques and a basis for doing so.

2. Nature of case study research

CSR is an inquiry that focuses on describing, understanding, predicting, and/or controlling the individual (i.e., process, animal, person, household, organization, group, industry, culture, or nationality) (Woodside, 2010). This definition is intentionally broader than the definition that Yin (1994, p. 13) proposes, "A *case study* is an empirical inquiry that investigates a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident."

For a given study, focusing the research issues, theory, and/or empirical inquiry on the individual (n = 1) is the central feature of CSR. As Skinner (1966, p. 21), "… instead of studying a thousand rats for one hour each, or a hundred rats for ten hours each, the investigator is likely to study one rat for a thousand hours." This view is not intended to imply that CSR is limited to a sample of n = 1. Reports of multiple case studies are available in organization science (e.g., Nutt, 1993, 1994) involving business-to-business contexts. In the marketing literature, Howard and Morgenroth (1968) illustrate transforming the research context in one supply chain from n = 1 to n > 30 by examining alternative thought/action routes taken in separate, but seemingly similar, decisions that include five principal parties in the corporate context: a senior decision-maker, a regional manager, a local distributor, and two sets of competitors.

This article's objectives include achieving four outcomes. First, the article serves to inform the reader of core assumptions about B2B relationships that serve as rationales for conducting case study research in business-to-business (B2B) contexts. These rationales highlight the need for a range of methodological approaches that cope better with temporal and spatial transferability of results. Cross-sectional research findings, in particular, have the problem that they "offer weak transferability from one contextual setting to another" (Nicholson et al., 2009), whereas CSR, as explained below, has the potential to overcome that problem.

Second, the article provides brief summaries of exemplar methods in the literature of B2B decision-process studies. Third, the review of these studies provides principles for advancing a behavioral theory of the firm (Cyert & March, 1963). Fourth, the article provides examples of useful strategy implications that result from CSR reports.

3. Core assumptions serving as rationales for CSR

This section of the article outlines several assumptions that provide the rationale for the use of CSR. A number precedes each of the core assumptions about B2B relationships that follow and that support the rationale for in-depth CSR. The first two assumptions are about the challenges that the environment poses in B2B research. Assumption (1) notes the concern that in B2B research, there are multiple perspectives of events. Assumption (2) notes different perspectives of participants and hence leads into the assumptions (3) to (6), which note human cognitive limitations that affect the ability to report events. For effective outcomes, researchers need to attend to "both blades of the scissors" (Simon, 1990; Todd & Gigerenzer, 2003) where one blade is environmental issues and the other is cognitive limitations: studying "only one blade is not enough; it takes both for the scissors to cut." Six assumptions follow as 3.1 to 3.6.

(1) B2B relationships include interactions among four-plus persons. For example, a buyer in a customer firm interacts with a vendor's sales representative and each reports their discussion with one or more persons in their respective firms. The metaphor of listening-to-one-hand-clapping has some relevancy in describing research that reports on interviews or survey answers of only one person who is a participant in a B2B context. Single-respondent research may present only one perspective of events among many and is therefore not sufficiently representative of the depth of meaning of events to be temporally and spatially transferable (Nicholson et al., 2009).

(2) Because participants differ in their perspectives and prior experiences to some important extent in B2B contexts, this contributes to the "multiple perspectives" of the events to which the research relates so that important differences occur in their descriptions of B2B processes and the causes and outcomes of these processes. To clarify and deepen knowledge of what is happening and how participants interpret thinking, actions, and outcomes, case study researchers prefer to observe meetings and interview two-plus persons that interact in B2B contexts. For example, case study researchers prefer to interview a B2B buyer and a B2B vendor separately as well as to observe their face-to-face meetings rather than rely on responses to a survey from one or the other participant.

Fig. 1 illustrates these ideas as well as emphasizes the point that B2B contexts and processes involve several time periods (days, weeks, months, and years). Case study researchers have a strong preference to apply a triangulation of methods in collecting data—interviews of participants, analyses of documents, and direct observation of events such as meetings that are relevant for the same B2B process. They do this to address two issues noted below in more depth: the inability of participants to articulate the processes of intuitive decisions and actions and the varying perspectives of different observers. Triangulation is important in order to establish analytic generalizability and construct validity (Healy & Perry, 2000). Case study researchers tend to interview the same persons on more than one occasion because they recognize that B2B processes are dynamic and occur over several time periods and hence that time issues are important to interaction in business relationships (Medlin, 2004).

If generalizability and/or theory testing is the aim of a study, case study researchers will collect data about, and analyze, multiple cases in order to better establish patterns across multiple contexts and "demonstrate convergence on one meaning" (Johnston, Leach, & Liu, 1999). Researchers can test relevant types of hypotheses with multiple cases in three separate sets of theoretically relevant cases as suggested by Johnston et al. They can investigate the theorized hypotheses for replicability