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ESSAYS

Generalizing About Uniqueness

An Essay on an Apparent Paradox in the Resource-Based View

MICHAEL GIBBERT
Bocconi University, Italy

Firm-idiosyncratic resources are at the heart of the resource-based view. A hallmark of empirical research findings supporting or falsifying a theory is generalizability. Generalizability demands that research findings are not idiosyncratic to the firm or sample of firms studied. The author develops a typology for mapping the apparently paradoxical relationship between resource idiosyncrasy and generalizability of research findings. Implications for empirical work are then deduced to advance our understanding of the resource-based "view" as a theory.

Keywords: *generalizability; idiosyncrasy; resource-based view*

> [I]t is, to restate the point, questionable if sustainable competitive advantage based on unique resources can be generalizable at all . . . for the strategist, it is not generalizable similarity that is critical, but difference. It is precisely this paradox that Conner (1991) called on the resource-based view to address. (Rouse & Daellenbach, 2002, p. 966)

What *can* we do about the paradox of generalizing about uniqueness in strategy research and how might the resource-based view (RBV) contribute to the solution of the apparent paradox? The RBV is an influential perspective that seeks to answer the question "why are firms different?" by focusing on firm-idiosyncratic resources and capabilities as the cause for interfirm differences in profitability. According to this perspective, resources that are valuable, rare, inimitable, and nonsubstitutable (so-called VRIN resources, e.g., Barney, 1991) provide the basis for sustained competitive advantage

AUTHOR'S NOTE: Financial support by Scuola Direzione Aziendale Bocconi is gratefully acknowledged. I would like to thank Urs Daellenbach, Martin Hoegl, Barry Nalebuff, Richard Priem, the two anonymous *JMI* reviewers, and the seminar participants at Bocconi University, St. Gallen University, and the Yale School of Management for their suggestions and comments. The usual disclaimer applies.

JOURNAL OF MANAGEMENT INQUIRY, Vol. 15 No. 2, June 2006 124-134
DOI: 10.1177/1056492606287793

(Peteraf, 1993; Prahalad & Hamel, 1990; Wernerfelt, 1984). However, *generalizability*, or external validity, refers to the extent to which research findings are not unique (idiosyncratic) to the case or sample studied (Campbell & Stanley, 1966; Cook & Campbell, 1979), that is, generalizability describes the degree to which research findings in one study or firm are valid in others (e.g., Calder, Phillips, & Tybott, 1982; Eisenhardt, 1989; Scandura & Williams, 2000). Thus, if one's research findings regarding firm resources actually were generalizable, they would violate the RBV criterion of idiosyncrasy (i.e., rarity, inimitability, and nonsubstitutability) and would, therefore, not be conducive to building, managing, and sustaining firms' competitive advantage (e.g., Eisenhardt & Martin, 2000, pp. 1108-1114; Porter & Siggelkow, 2001, p. 7).

The purpose of this essay is to address this apparent paradox of generalizing about uniqueness to generate dialogue for further thinking on the resource-based "view" as a theory. Drawing on the RBV and research methodology literature, I attempt to make two specific contributions. The first is the construction of a typology for classifying four distinct idiosyncrasy and/or generalizability combinations. This typology synthesizes recent work on the RBV (e.g., Barney, 2001; Eisenhardt & Martin, 2000; Teece, Pisano, & Shuen, 1997; Wernerfelt, 1984, 1995; Zollo & Winter, 2000), with qualitative and quantitative methods (e.g., Campbell & Stanley, 1966; Cook & Campbell, 1979; Miles & Huberman, 1994), including the design of case study research (Eisenhardt, 1989; Stake, 1994; Yin, 1994). The second contribution is an attempt to extend that work in areas such as the appropriateness of certain methodological approaches for the study of different kinds of resources, and the contribution of empirical results to advancing the RBV's theoretical structure.

THEORETICAL BACKGROUND

Before developing the conceptual framework, it will be helpful to briefly review the issues of resource idiosyncrasy and generalizability in the RBV literature and the research methodology literature. Following the review of both literatures, I present a new framework for thinking about the relationship between resource idiosyncrasy and the generalizability of research findings.

Idiosyncrasy of Resources

The RBV is a current influential framework for understanding how competitive advantage is achieved and how that advantage can be sustained over time (see, e.g., Prahalad & Hamel, 1990; Wernerfelt, 1984, 1995). It focuses on the internal organization of the firm and has evolved in response to the traditional emphasis of strategy on industry structure and strategic positioning within that structure as the determinants of competitive advantage (e.g., Porter, 1980, 1985). The RBV defines the term *resources* broadly as tangible (e.g., specialized equipment, geographic location), human (e.g., technical expertise), organizational (e.g., superior sales force, supply chain management), and intangible (e.g., organizational culture) assets that can be used to confer value.

The notion of resource idiosyncrasy is at the heart of the RBV. Building on Penrose's (1959) conception of the firm as a "collection of productive resources, both human and material" (p. 31), proponents of this school are rooted in transaction cost theory and evolutionary economic theory (e.g., Coase, 1937) and reestablish the importance of the individual firm, as opposed to the industry, as the relevant unit of analysis (e.g., Amit & Shoemaker, 1993). In contrast to the focus on industry structure as the basis for competitive advantage (e.g., Porter, 1980), which assumed homogeneously distributed resources, firms through the looking glass of the RBV are seen as heterogeneously endowed in resource terms (Amit & Shoemaker, 1993; Dierickx & Cool, 1989).

Two main reasons for this heterogeneity of resources can be discerned in the literature. First, value creation and business development are seen as complex activities, and organizations often lack the capacity to develop or acquire new competencies with adequate speed (Peteraf, 1993; Prahalad & Hamel, 1990). Second, some assets, such as tacit knowledge, may not be tradable, or may only be tradable with great difficulty (e.g., Grant, 1996; Spender, 1996). The result of both conjectures is that resource endowments cannot equilibrate through factor input markets, hence the assumption underlying the RBV: Critical resources can typically not be acquired via the market and consequently need to be developed internally (Barney, 1991).

Based on these assumptions, the RBV suggests that competitive advantage does not only arise via product-market combinations in a given industry (Hamel, 1991; Wernerfelt, 1984). Instead, researchers

have theorized that when firms possess resources that are valuable, rare, inimitable, and nonsubstitutable, they can achieve sustained competitive advantage because these resources enable them to implement value-creating strategies that cannot easily be duplicated by competitors (Barney, 2001; Wernerfelt, 1984, 1995), and the ability to change these strategies in idiosyncratic ways as conditions demand (e.g., Kogut & Zander, 1996; Teece et al., 1997).

Generalizability of Research Findings

There are three main forms of validity: internal validity (the extent to which there is a causal relationship between variables), construct validity (the extent to which a study investigates what it claims to investigate), and external validity, or generalizability (e.g., Cook & Campbell, 1979). From a methodological point of view, external validity builds on the former two forms of validity: Without a clear theoretical and causal logic (internal validity), and without a careful link between the theoretical conjecture and the empirical observations (construct validity), there can be no external validity in the first place. When internal and construct validity are ascertained, methodologists widely agree that the development of a given theory crucially depends on the generalizability of research findings (see, e.g., Wacker, 1998; Weick, 1989, 1995). It is worth emphasizing in this context that generalizability constitutes a property of research findings that support or falsify a given theory, rather than constituting a property of the theory itself. For example, performance differences between people are frequently attributed to individual differences that could be seen as idiosyncratic, for example, differences in skills and abilities; however, this does not deter the generalizability of theories, say, of intelligence. The RBV argues that the bundle of resources likely to underlie the performance of any particular firm is unique and defines the *dimensions* (e.g., nontradability, nonsubstitutability, and inimitability) and causes of (e.g. path dependence and causal ambiguity) such uniqueness, thereby offering researchers a set of "generalized conditionals" (Priem & Butler, 2001). So yes, the RBV, similar to a theory of intelligence, does contain these generalized conditionals but argues that idiosyncratic resources that provide competitive advantage will vary by context. Seen from the perspective of the methodology literature, this constitutes the root cause of the paradox we seek to analyze here: *Generalizability*, or external validity, refers to the extent to which research findings apply to contexts other than the one researched. Consequently, methodology scholars argue that research, which is weak in generalizability, may not be an adequate test of theory (Campbell & Stanley, 1966; Cook & Campbell, 1979). This view is grounded in the intuitive belief that valid theories must be shown to account for phenomena as they apply to not only one setting but are also externally valid in other settings (e.g., Calder et al., 1982). If generalizability were to be deemphasized from research, Wells (2001) hypothesized, "medical researchers would never move beyond white rats" (p. 495).

Generalizability as a mandate for theory-building research in management applies equally to the positivist, analytic paradigm, and to the interpretative, qualitative paradigm (Campbell & Stanley, 1966; Larsson, 1993; Reason & Rowan, 1981; van Maanen, 1979). It is important to note, generalizability depends on the type of methodology employed (e.g., Scandura & Williams, 2000). Large surveys are commonly associated with higher generalizability than in-depth qualitative studies, particularly those involving the "sample size of one" (e.g., March, Sproull, & Tamuz, 1991; Miles, 1979). Nevertheless, Rouse and Daellenbach (1999) recently made the point that to the extent that strategic management research has shifted from a focus on environmental factors (Porter, 1980) to idiosyncratic resources, the dominant research approach should coincidentally shift from research *on* organizations (using, e.g., large-sample, multi-industry, single-time-period samples) to research in organizations (using, e.g., thick descriptions, direct or participant observation-derived data, and in-depth, longitudinal approaches; see Rouse & Daellenbach, 1999, p. 490).

Although the in-depth, qualitative research approach for the RBV can be beneficial from this perspective, the problems this approach poses to generalizability should not be overlooked, either. For example, case studies in general, and single-case studies in particular, make the generalization of empirical findings difficult. Yin (1994) alerted his readers to the fact that case studies usually do not allow for statistical generalization, that is, the making of inferences about a population on the basis of empirical data collected about a sample (pp. 38-40). Some authors even argued that case studies constitute a unit of analysis in themselves, rather than a sampling unit, and hence do not allow for statistical generalization (e.g., Stake, 1988,

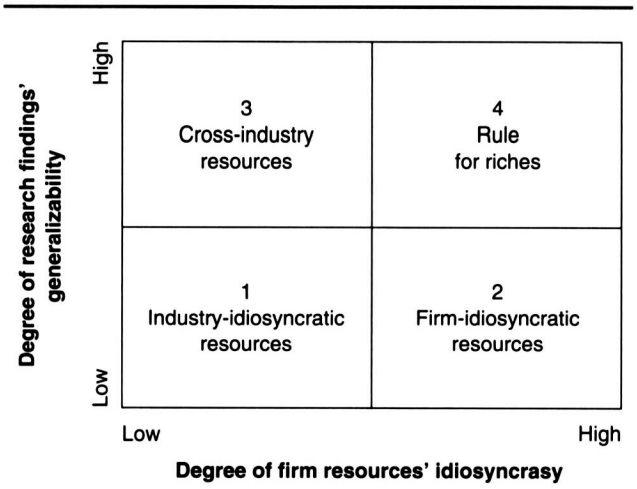

Figure 1: Idiosyncrasy of firm resources versus generalizability of research findings.

1994). Thus, although methodologists do agree that other research strategies, particularly those involving larger sample sizes, such as surveys, laboratory experiments, and simulations, can allow for generalizability (Scandura & Williams, 2000), generalizability of empirical findings, particularly those obtained in high-intrusion, small-sample studies remains elusive, even though an understanding beyond the individual case may be fostered (Yin, 1994). Eisenhardt (1989) argued that because such studies typically lack quantitative gauges such as regression results or observations across multiple studies, they may be unable to assess which are the most important relationships and which are simply specific to a particular case, or context, and this "may result in narrow and idiosyncratic theory" (p. 547).

CONCEPTUAL FRAMEWORK

In constructing the conceptual framework, I focus on the idiosyncrasy of firm resources as a mandate in the RBV, and on the generalizability of research findings as a necessary property of empirical research findings. Thus, I attempt to link two concepts that emerged independently in the RBV and methodology literatures to shed more light on their interactions. I do this by juxtaposing the two in a matrix (Figure 1).

The generalizability of research findings and the idiosyncrasy of resources can be seen as a matter of degree, thus yielding the high and/or low categories in Figure 1. The thinking is as follows: Methodologists seem to agree that the generalizability of research findings (the vertical dimension in Figure 1) is contingent first on the sampling method, and second on a variety of background factors (e.g., Calder et al., 1982). It seems self-evident to many researchers, for example, that having a random or carefully selected theoretical sample from some larger population is more desirable than having a convenience sample (e.g., Cook & Campbell, 1979). However, there is a more sophisticated argument for external validity that goes beyond commonsense perceptions, accepting the universal nature of theoretical research and rejecting the automatic superiority of random or theoretical samples (Calder et al., 1982, p. 241). This line of argument distinguishes two kinds of variables, namely (a) the primary variables under investigation and (b) what are commonly called "background" variables, that is, those that are not identified by the theory. The contention here is that a study's external validity suffers when unidentified background variables exist that would, if included in the study, interact with the primary variables and, thereby, modify the effects observed. The external validity of a given study is, hence, seen as a matter of degree in that

> the set of background factors that could interact with treatments is infinite. Moreover, there is no *a priori* basis for even the most astute researcher to specify which of these factors will have an impact. Nor is there any logical way of prioritizing these variables. (Calder et al., 1982, p. 241).

To overcome this problem, methodologists argue that it is necessary to employ a research methodology that (a) estimates the degree of correspondence between measurements and the concepts they represent, (b) identifies and corrects for errors in measurement when testing nonobservable propositions or, if this is not possible (c) makes the background factors of a given study as explicit as possible (Bagozzi, 1980; Cook & Campbell, 1979; Eisenhardt, 1989; Yin, 1994).

The idiosyncrasy of firm resources, the horizontal dimension in Figure 1, can also be interpreted as being a matter of degree. The proposition here is that some resources (such as total quality management, process technology, and knowledge management) can become what popular parlance calls "best practices"

(Eisenhardt & Martin, 2000; Powell, 1995; Teece et al., 1997; Zollo & Winter, 2000). It is unclear as yet if such best practices apply within a given industry only, or whether they are generalizable across industries (e.g., Amit & Shoemaker, 1993). What seems clear, however, is that some resources, although strategically valuable (i.e., satisfying the "valuable" criterion of the VRIN framework), may be less rare, inimitable, and non-substitutable than the RBV commonly assumes. By implication, these commonalities make the resources per se not likely to be the foundation of sustained competitive advantage in classic RBV terms (Eisenhardt & Martin, 2000, p. 1110).

In addition to such best practices, there seem to be (a) other resources that are much more idiosyncratic to a particular firm and/or (b) details associated with certain common resources that are indeed idiosyncratic. The issue is that in (a) and (b), "background variables" interact with the primary variables under investigation and, thereby, modify the effects observed (e.g., Calder et al.,1982, p. 241; Ray, Barney, & Muhanna, 2004). For example, Davenport and Probst (2002) found that knowledge management systems tend to exhibit not only common features across companies and industries (such as the basic technological architecture, functions such as urgent requests, and motivation and reward systems), but also specific details that are far more idiosyncratic to a given firm. At the German electrical engineering multinational Siemens, the authors found that knowledge-sharing behavior idiosyncratic to the company established itself 2 years after an otherwise relatively generic knowledge management system was implemented (Davenport & Probst, 2002, p. 17). Along similar lines, Eisenhardt and Brown have studied product-development processes in a variety of industries, and have found that these exhibit not only common features (e.g., the participation of cross-functional teams) but also idiosyncratic aspects (e.g., the tacit skill of involving customers in the product-development process, see Eisenhardt & Brown, 1998, 1999).

In sum, a number of factors mediating the degree of generalizability have been pointed out in the methodology literature. Similarly, the RBV literature has pointed out conditions under which firm resources can be more or less idiosyncratic. Rather than distinguishing between degrees of resource idiosyncrasy and generalizability of research findings respectively, the framework in Figure 1 characterizes the degree of resource idiosyncrasy in terms of its implications for the generalizability of research findings. This characterization scheme can offer new insights into the mediating role that resource idiosyncrasy plays in the initial definition of research objects and the ensuing identification of research methods with which to study them. In particular, the framework helps shed more light on the challenge of "generalizing about uniqueness," that is, toward the difficulty of researchers in investigating highly idiosyncratic resources while producing research output that is not idiosyncratic to the firm studied.

Based on the assumption that the idiosyncrasy of resources and the generalizability of research findings is a matter of degree (high vs. low), we can then logically distinguish four cases, which are depicted in Figure 1. First, cross-industry resources tend to be similar in firms across industries. Such resources would represent what Porter (1996) called "operational efficiency." The optimal configuration of these resources is fairly identical within an industry and can even assume a generic nature across industries (Porter & Siggelkow, 2001). Hence, the resources are highly generalizable. For example, total quality management systems, originally emanating from the automobile industry, have assumed a generic nature in many other industries (Powell, 1995). Indeed, the generalizability of these resources seems so high that their level of sophistication can be assessed by a standardized set of criteria that even leads to cross-industry certificates (e.g., ISO 9001). Although such resources are important to study, they represent only a subset of ways in which a firm can gain competitive advantage. To illustrate, if a particular resource leads to competitive advantage in a given firm, competitors will have an incentive to adopt this resource sooner or later (Porter & Siggelkow, 2001, p. 7). Methodologically, this suggests that multiple case studies and surveys could be appropriate methods for studying resources with low idiosyncrasy when the goal is to draw conclusions that are generalizable across firms and/or industries.

Second, resources which are similar industry-wide, but not across industries, can be called *industry-idiosyncratic resources* (e.g., Eisenhardt & Martin, 2000; Teece et al., 1997). The optimal configuration of these resources, although exhibiting generic main features, is often idiosyncratic in its detail and, therefore, less generalizable than resources representing operational efficiency. For example, knowledge

management systems tend to be based on fairly generic technological and processual tools (such as intranet-based best practice sharing platforms). However, the concomitant elements of organizational structure and particularly organizational culture necessary to make knowledge flow in a company are often highly idiosyncratic and much less generalizable (e.g., Davenport & Probst, 2002). This suggests that industry-idiosyncratic resources are more homogenous, fungible, equifinal, and substitutable among firms within an industry than the RBV commonly assumes for VRIN resources (Eisenhardt & Martin, 2000, p. 1105). Methodologically, this suggests that cross-case analyses on the firm level or single cases on the industry level could represent appropriate methodologies for learning more about the question whether and under which contextual factors resources are idiosyncratic to a given firm.

Third, resources that are highly idiosyncratic to a given firm and, by implication, not easily generalizable across firms and/or industries, would represent *firm-idiosyncratic resources* in the classic RBV sense. Such resources tend to be highly context dependent and are often mediated by geographical location, organizational culture, and organizational structure. They are idiosyncratic in their details and path dependent in their emergence and can, therefore, not be separated easily from the context from which they emanate. This suggests that single-case studies, ethnographic methods, and participant and/or direct observational research approaches on the firm level could be techniques likely to yield more insight into highly idiosyncratic resources, albeit at the cost of generalizability (e.g., Glaser & Strauss, 1967; Mintzberg, 1979).

Fourth, resources that are highly idiosyncratic, yet based on research results that claim to be high in generalizability, may be called *rules for riches*. It seems hard to imagine a set of firm-idiosyncratic resources that are generalizable across firms or even industries. Barney and Arikan (2001) in their extensive analysis of empirical work in the RBV described such research findings as "rules for riches." Rules for riches are strategic options and processes that any firm can employ, irrespective of context. The authors explain that

> there cannot be a "rule for riches." If the application of a theory to a firm without any special resources can be used to create competitive advantages for that firm, then it could be used to create competitive advantages for any firm, and the actions undertaken by any one of these firms would not be a source of sustained competitive advantage. Even if a "rule for riches" created economic value, that value would be fully appropriated by those that invented and marketed this rule. (Barney & Arikan, 2001, p. 138)

Methodologically, the above would imply that research results, which claim to be high in generalizability and are focused on resources that are highly idiosyncratic, could be distorted by background variables that need to be made more explicit by sequencing empirical research in the way discussed in the next section.

DISCUSSION

The proposed typology can provide a helpful tool for making more appropriate methodological choices for empirical work in the RBV. The framework suggests that the choice of research methodology is contingent on the hypothesized degree of resource idiosyncrasy. For example, if a resource were hypothesized to be idiosyncratic to a given firm, high-intrusion, qualitative approaches would apply. This is in line with recent literature proclaiming that idiosyncratic resources should be studied using qualitative, high-intrusion methods (e.g., Rouse & Daellenbach, 1999, 2002). However, the framework developed here bears a significant difference to existing work with respect to sequencing research along a continuum from exploratory, ideographic to comparative, nomothetic phases. The existing literature agrees widely that high-intrusion, ideographic research approaches are most applicable to the exploratory or pilot phase of research, which would then be followed by subsequent nomothetic phases (e.g., Tsoukas, 1989, p. 556). In terms of the RBV, this would mean that initially, high-intrusion approaches would apply to determine (the hypothesized) idiosyncrasy. As understanding progresses, surveys would then be useful to establish whether, and to what extent, resources were indeed idiosyncratic to the firm studied, to what extent they applied to the industry the firm operates in, or if the resources were even generalizable across industries (and, in the latter two cases, would lose their strategic value in RBV terms).

By contrast, the framework developed here suggests that the sequencing of research activities

should be the other way around. The reason is that the degree of resource idiosyncrasy is difficult to determine ex ante, even if, and particularly if, already-existing secondary data for the identification of distinctive performance as a sampling criterion were used, as Rouse and Daellenbach proposed (2002, p. 963). Indeed, the difficulty in gauging the degree of resource idiosyncrasy ex ante can lead to erroneous conclusions, possibly turning the findings into an artifact of how the data were coded (Popper, 1972). For example, many of the alleged idiosyncratic resources such as total quality management skills, knowledge management expertise, or new product development turn out to have greater generalizability than was originally assumed when a specific study was designed. Eisenhardt and Martin (2000) argued that the existence of best practice across firms is a manifestation of the fact that certain resources exhibit common features (e.g., the product-development process), whereas the details of enforcing the common features "are certainly idiosyncratic" in their details (p. 1108). These authors also emphasized that the existence of common features does not imply that a particular resource is exactly alike across firms. Knowledge-creation processes, for instance, are similar in that they typically rely on explicit linkages between the focal firm and knowledge sources outside the firm. These processes also seem to be heterogeneous with regard to the particular activities with which "gatekeepers" in the focal firms broker the knowledge gained from elsewhere (Eisenhardt & Martin, 2000, p. 1109).

The mapping of these dynamics in Figure 1 makes methodological choices and their implications clearly visible. In terms of the matrix, empirical research in the RBV would start with a cross-industry survey, would then move counterclockwise to the industry level of analysis to determine if, and which firms would have comparable resources, and where firms differ in terms of resources and the concomitant performance implications. Finally, firm-level analyses using high-intrusion approaches such as the single-case study would be appropriate to determine where a given firm stands relative to its competitors or relative to best practices in other industries, thereby disentangling a firm's bundle of resources in elements of various degrees of idiosyncrasy. In other words, the matrix suggests that the quest for idiosyncratic resources requires a comparative approach, one that alternates between dependent and independent variables as we move from the cross-industry level to the industry and firm levels of analysis. For example, Miller and Shamsie's (1996) recognized study on the film industry shows that having certain actors under contract and having well-established distribution arrangements proved to be key resources that defined success. Figure 1 suggests that their investigation on the industry level (Box 1) could be expanded by an in-depth study on the firm level (Box 2), thereby turning Miller and Shamsie's independent variables (contracts with stars and distribution networks) into dependent variables. Questions could then be examined such as how individual firms within that industry were able to acquire, develop, and successfully manage a portfolio of stars, or how distribution networks were acquired, developed, and managed.

The approach proposed here bears a significant difference from existing empirical work in the RBV. To date, most studies in the RBV have sought to establish to what degree certain resources and capabilities met RBV criteria, and then proceeded to correlate these resources with firm performance. The problem is that with few exceptions, this approach has focused on what may actually be a highly aggregated dependent variable, namely firm performance. A recent contribution by Ray et al. (2004) explains that although this aggregated variable may be of intrinsic interest to scholars and managers, it may not always be the best test for the RBV,

> because firms can have competitive advantages in some business activities and competitive disadvantages in others. [Therefore,] examining the relationship between resources associated with different business processes within a firm and a firm's overall performance can lead to misleading conclusions. (p. 24).

Thus, so the argument, if we change the level of analysis from the firm to the process level, we may be in a better position to tackle causal ambiguity, and to ultimately ascertain idiosyncrasy. It is ironic to note, rather than performing a study on business processes on the firm level, Ray et al. (2004) examined idiosyncrasy on the industry level by studying the determinants of effectiveness of the consumer service business process in a sample of 800 North American insurance companies, finding that performance differences on the process level are not necessarily reflected on the firm (performance) level. In terms of Figure 1, Ray et al.'s (2004) study could best be described using the general logic of Box 1: analysis of industry-idiosyncratic resources using

quantitative methods. There is nothing wrong with this; however, our short example goes to show that the model proposed in this essay may be useful not only for categorizing where existing research stands with regard to the four idiosyncrasy and/or generalizability combinations but for pushing the research boundaries. In Ray et al.'s study, this could be done, for instance, by following the logic of Box 2: analysis of firm-idiosyncratic resources using intrusive methods.

An added benefit of the proposed approach would be that differences among firms that involve different levels or combinations of the same resource would be more easily observed than differences in resources themselves—Rouse and Daellenbach (1999) and Amit and Shoemaker (1993) made the point that researchers need to control for industry-specific variables that can be extended to strategic groups, again for control purposes. In this context, we acknowledge that the comparison between levels of idiosyncrasy need not necessarily be high versus low. As Powell (1995, 2001) and Rouse and Daellenbach (2002) emphasized, even average performers in a given industry may have competitive advantages, which are offset by weaknesses or disadvantages—thus, systematic comparison with average performers could have some added benefit. To illustrate, high versus high, high versus average, or average versus low might provide insightful contrasts as well, although the starkest contrast will be high versus low.

In sum, therefore, the acid test for resource idiosyncrasy would be the lack of generalizability of research findings irrespective of a research methodology's propensity to produce generalizable findings. For example, if a particular phenomenon were eventually found to be idiosyncratic to a given company, say, in the wine industry as a result of the high resource heterogeneity within that industry and between the wine industry and other industries, a finding concerning that phenomenon would not be generalizable to other companies (in other industries), irrespective of the research method employed.

CONCLUSIONS AND IMPLICATIONS

The purpose of this essay was to generate dialogue for further thinking on the resource-based "view" as a theory. My approach was to articulate the interface between idiosyncratic firm resources and generalizable research findings. To this end, I proposed that a useful distinction can be made between low and high idiosyncrasy and/or generalizability. In an attempt to answer our guiding question—how can we generalize about uniqueness in the RBV—we can conclude that

- Generalizability should not be an unconditional methodological requirement in RBV research. From a methodological point of view, external validity builds on two more fundamental forms of validity: Without a clear theoretical and causal logic (internal validity), and without a careful link between the theoretical conjecture and the empirical observations (construct validity), there can be no external validity in the first place.
- In research contexts where we are interested in idiosyncratic resources on the firm level, generalizability may (have to) be deemphasized in favor of internal and construct validity (in that order).
- The concept *bundles of resources* may be counterproductive in instances where it leads researchers to consider constituent elements of such "bundles" on different levels of analysis (e.g., on the firm, industry, or cross-industry level, as discussed here).
- *Bundles of resources* may remain a useful metaphor, however, to describe asset interconnectedness on the firm level (i.e., Box 2 of the proposed matrix) as a source of inimitability (e.g., Dierickx & Cool, 1989).
- The study of idiosyncrasy demands a comparative approach, which compares different levels of idiosyncrasy on different levels of analysis (e.g., cross-industry, industry, and firm level).
- The comparative approach demands different research methods for each level of analysis because individual methods reveal different levels of idiosyncrasy. Nomothetic methods may be less suitable to assess idiosyncrasy on the firm level than idiographic approaches. Consequently, there seems to be an inverse proportional relationship between the level of resource idiosyncrasy and the generalizability of research findings. Lack of generalizability irrespective of the research approach used is ipso facto the acid test for resource idiosyncrasy.

Whereas the existing RBV literature and the existing methodology literature have pointed out a number of factors mediating the degree of idiosyncrasy and generalizability, respectively, the proposed framework instead classifies the degree of resource idiosyncrasy in terms of its implications for the generalizability of research findings. The framework thus offers an alternative and complementary classification. With this classification, the effect of the degree of resource idiosyncrasy can be described in terms of four separate cases—a useful distinction

because managers and researchers will react differently to different idiosyncrasy and/or generalizability combinations. To illustrate, given that resources and research findings can be seen as idiosyncratic to a degree, we need to take a more differentiated and strategic approach when opening the methodological toolbox in the quest for answering the question "why are some firms successful when others are not." This approach to methodological choice seems imperative to turn the RBV into a falsifiable, and thereby testable, theory (Popper, 1972).

Some may argue that this proposition conflates the characteristics of a theory with particular content constructs of that theory. It may be argued that a theory should have the characteristics of being generalizable to be of more value for researchers. That—so the line of reasoning—does not mean that some event predicted by the theory needs to be generalizable. In our specific case, the argument that "idiosyncratic resources create competitive advantage" would be generalizable independent of whether or not any particular idiosyncratic resources were generalizable. This criticism, however, suffers from two shortcomings. First, it misinterprets *generalizability* as a property of theory, rather than interpreting it as a property of the empirical findings supporting or falsifying that theory (Cook & Campbell, 1979, pp. 70-73). Second, and most important, the argument confuses Popper's (1959) distinction between the logic of a situation and the implied methodology. Popper recommended that we draw a distinction between the logic of a situation and the implied methodology, because in logic, a theory may be conclusively falsifiable (e.g., the theory that all swans are white may be refuted by the observation of a black swan). Conclusive falsification may not, however, be attainable at the methodological level because it is always possible to refute falsifying observations (the black swan may not be categorized as a swan, but as something else). In this sense, almost any theory would become generalizable if an abstract-enough level of analysis were chosen. However, an "inclusive definition of firm resources" (Priem & Butler, 2001, p. 31) reduces the RBV's propensity to provide prescriptive implications, leaving managers wondering how to actually manipulate resources that are valuable, rare, inimitable, and nonsubstitutable. In line with Popper, I therefore propose, as an article of method, that we do not systematically evade refutation whether by abstract resource conceptualizations, or by abstract hypotheses regarding the performance effects of these resources. Instead, we should strive to formulate propositions in the RBV on as high a level of granulation as we can, so as to expose them as clearly as possible to refutation, to contribute to the emancipation of the resource-based view to a resource-based theory. This means that we need to further differentiate the notion of *bundles of resources*: How can such bundles be disaggregated more clearly into elements that are highly idiosyncratic and those that are not (Powell, 2001; Rouse & Daellenbach, 2002)? More specifically, in terms of the proposed framework, how can *bundles of resources* be disentangled into performance-critical elements that are (a) generalizable across industries, (b) idiosyncratic to a given industry, or (c) idiosyncratic to a given firm?

Overall, we do not claim to have solved the apparent paradox of "generalizing about uniqueness"—it seems impossible to infer generalizable conclusions based on idiosyncratic resources (Box 4 in Figure 1). Rather than trying to solve, or abolish this paradox, we therefore chose to accept the paradox and use it constructively (e.g., Scott-Poole & van de Ven, 1989, p. 566). We do wish to claim, though, that the model developed here makes some useful distinctions by bringing into the equation three additional generalizability/idiosyncrasy combinations (Boxes 1, 2, and 3). Although these distinctions are Weberian ideal types and, therefore, crude ends of a rich continuum, researchers might find them useful for categorizing empirical work in the RBV. The three additional generalizability and/or idiosyncrasy combinations may also be useful for constructing new research that takes existing research as a starting point (by plotting it in one of the four boxes in Figure 1), and (by moving counterclockwise in Figure 1) probes deeper into the sources of idiosyncrasy, albeit at the cost of generalizability. Finally, as I hope I made myself clear during this essay, the intention here is not to criticize the RBV for its lack of theoretical sophistication (e.g., Priem & Butler, 2001, who discuss issues of internal and construct validity). Instead, the notion is that the RBV actually has a contribution to make to the way empirical research in strategy is crafted and to the philosophy of science in general precisely because in some instances of empirical RBV work, there may be a paradox—and this apparent paradox does us a double service. First, it reminds us of the hierarchical relationship between the three main types of validity. Second, it calls on us to make informed decisions when we may have to deemphasize one type of validity, namely generalizability.

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MICHAEL GIBBERT *is assistant professor at the Institute for Business Management at Bocconi University in Milan. Prior to joining the faculty at Bocconi, he taught or researched at Yale, INSEAD, Stellenbosch, and St. Gallen, where he also studied for his PhD. He can be reached at e-mail: michael.gibbert@unibocconi.it*