

Toward a Positioning-Economizing Theory of Strategy

Jack A. Nickerson*

John M. Olin School of Business
Washington University in St. Louis
Campus Box 1133
One Brookings Drive
St. Louis, MO 63130-4899
nickerson@wuolin.wustl.edu

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This paper observes that Porter's strategic positioning analysis (SPA), the resource-based view of the firm (RBV), and Williamson's transaction cost economics (TCE) each offer partial explanations and prescriptions for business strategy, which, if managers followed in isolation, could fail to create and capture value. In response, the paper proposes to integrate the three perspectives into what is called the positioning-economizing (PE) perspective. Although a full theoretical integration is beyond the scope of the paper, the paper nonetheless offers a foundation for integration by identifying an appropriate unit of analysis (the activity chain), a consistent set of underlying assumptions, and a central decision variable (the resource profile) that span most if not all of the three perspectives. These foundational elements are then used to formally describe the optimization problem for identifying the set of feasible strategies, taking into account the extant demand environment, the idiosyncrasy of resources in alternative resource profiles, and the governance of each activity. The paper discusses how managers might cope with integrating the three perspectives in practical ways, the role of path dependence in conditioning the set of strategies that are feasible, and how the set of feasible resource profiles (i.e., strategies) usefully informs game theoretic approaches for identifying an optimal strategy. Finally, the paper illustrates the potential theoretical and practical value of the PE perspective by illustrating how it might refine, extend, or add new predictions to each of the theories that comprise it.

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INTRODUCTION

How do managers create and capture value? Three broad but distinct economic approaches in strategy research provide different responses:

SPA. Porter's (1996) strategic positioning analysis (SPA) argues that managers create and capture value by choosing a unique market position supported by an activity system. It offers the fundamental insight that to create and capture value, firms must invest in a set of activities that "fit" together to provide goods and services that target a set of customers.

RBV. The resource-based view of the firm (RBV) maintains that value comes to a firm because of unique and difficult-to-copy resources that other firms may not have access to. RBV "implicitly or explicitly assume[s] that any resource valuable, rare, and inimitable enough to generate sustainable rents is too asset specific ... to be contracted out" (Silverman 1999, 1110).

TCE. Transaction cost economics (TCE) focuses on the transaction as the unit of analysis and maintains that supportive governance structures (vertical integration being a polar case) are a necessary part of the "fundamental transformation" that creates idiosyncratic assets (which are the sources of value) and captures value from them. Thus, Williamson (1991) claims that economizing on transaction (and production) costs is the best strategy.

In combination, these economic approaches to firm strategy suggest that to create and capture value, managers absolutely must choose a unique market position that either invests in or accesses a chain of activities, some of which rely on unique resources that fit together to provide value to a targeted set of customers and that are organized so as to economize transaction-costs. Yet *none* of the three perspectives call on all of the elements in this combined perspective to

inform business strategy choices—each offers only partial explanations and advice to managers. Indeed, this paper asserts that each theory, if followed in isolation, may fail to create or capture value because some elements are either not fully considered or not considered at all. If these assertions are correct, then managers applying only one of these theories in practice may find their business strategies ineffective, or worse, fundamentally flawed. No one has yet provided guidance on how to integrate these perspectives into holistic and effective advice.

Consider SPA. Porter (1996, 69) states that “tradeoffs arise from limits on internal coordination and control.” But in Porter’s discussion, he is not clear about exactly what these tradeoffs are. Furthermore, Porter makes no suggestion that governance costs could constrain a manager’s choice of activities or position. Yet TCE locates its theoretical and empirical center on the finding that investments in activities and the governance of these activities *are* interdependent, which implies that organizational costs *can* constrain a manager’s choice of position.

Now let us consider RBV. This theory has had remarkably little to say about how unique assets fit together to provide value to customers, even though unique assets may be unprofitable if, in combination, they do not produce products and services that create more value than they cost (to assemble, to access resources, or to govern the assets). Furthermore, RBV’s frequent recommendation to own scarce resources rarely considers the governance costs of hierarchy—for instance, hierarchy, given the nature of the resources, may not economize on transaction costs.

Finally, TCE’s devotion to the transaction as the unit of analysis seems not to incorporate both the demand environment and the set of activities in the activity chain necessary for evaluating alternative business strategies. Indeed, TCE remains underdeveloped in its ability to

explain how the constellation of activities undertaken by a firm are related and reinforcing (i.e., fit together), which, as Rumelt et al. (1991) claim, is central to formulating business strategy.

In response to these limitations, this paper attempts to provide value in several ways. It argues that we need to move from partial mechanisms to a more holistic and integrative perspective that parsimoniously links all three approaches. This idea—to integrate economic perspectives of business strategy—is not new. For instance, Day and Klein (1987, 62) assert that the “weaknesses of [Williamson’s] market failure approach are the strengths of [Porter’s] strategic perspective and vice versa,” and they call for research that combines SPA and TCE analyses. Similarly, Williamson (1999) discusses opportunities for integrating RBV and TCE. Argyres (1996) employs an integrative RBV and TCE lens to explain vertical integration decisions in a firm that produces cable connectors, and Silverman (1999) provides an integration of RBV and TCE to explain the direction and governance of diversification moves. Mahoney and Pandian (1992) not only call for an integration between RBV and TCE but also suggest connections between RBV and the theory of industrial organization upon which Porter’s work is based. The current effort, then, without claiming to provide a full theoretical integration of the three perspectives, nonetheless advances this agenda by providing a foundation for integration. Such a foundation requires a consistent unit of analysis, a consistent set of assumptions, and a consistent central decision variable. By providing these elements, this paper moves closer to integrating the three economic approaches than any other effort presently available.

To do this, the paper formalizes the optimization problem of searching for the set of feasible strategies—what is called herein the *positioning-economizing perspective*. In this perspective, management’s optimization problem involves taking into account the characteristics of the demand environment, the alternative activity chains that could be used for producing the

product or service, the idiosyncrasy of resources in each activity and across activity chains (what is referred to herein as alternative resource profiles), and the governance of those resources. The paper also offers a unifying terminology. The resulting methodology is not presently found in the literature.

The paper discusses the analytical challenges of applying the joint (what will be referred to as the positioning-economizing) perspective as well as ways that managers can cope with these challenges. Thus, the approach provides preliminary guidance to managers on how to usefully integrate SPA, RBV, and TCE to inform strategic choices. The paper goes on to discuss how this integrative perspective provides value over and above what SPA, RBV, or TCE individually provide. For instance, the positioning-economizing perspective is an improvement over SPA because it can provide a general correspondence between different types of generic strategies (i.e., Porter's low-cost, differentiation, and focus strategies) and different organizational configurations, which SPA does not provide. It offers an improvement over RBV because it can be used to refine predictions about which resources and sets of resources are valuable and to refine predictions about related and unrelated diversification. Finally, it offers an improvement over TCE because it can be used to predict which transactions managers should undertake as well as the level of asset specificity in those transactions. Nonetheless, realizing this value and completing the integration awaits additional theoretical and empirical research.

The paper proceeds by providing a brief background on SPA, RBV, and TCE and highlighting the deficiencies in each for informing the choice of business strategy. Section 3 then discusses a unit of analysis, certain underlying assumptions, and a central decision variable that, together, form a foundation for the joint perspective of linking the three approaches together. Section 4 describes the positioning-economizing perspective and discusses the

practicality of managers applying the perspective. Section 5 discusses the value added by the perspective and implications for empirical research. Section 6 concludes.

BACKGROUND

Strategic Positioning Analysis

Porter's seminal contribution to the strategic management literature stems from his insight that the structure-conduct-performance paradigm of industrial organization can yield prescriptive principles for firms' competitive strategies. In other words, Porter (1980; 1985) proposes that managers can strategically shape and exploit market characteristics that impede perfect competition. In 1985, Porter (1985, 36-39) introduced the activity system—a chain of activities that are technologically and strategically distinct—as a unit of analysis and discussed how the choice of activity system could be used to shape generic strategies: cost leadership, differentiation, and focus. In more recent work (Porter 1996, 77), he provided greater specificity on the relation between activity systems and generic strategies: generic strategies involve defining a company's position, making tradeoffs, and forging fit among activities. Strategic positions can be based on customers' needs, on customers' accessibility, or on the variety of a company's products or services (p.66). Tradeoffs arise from inconsistencies in image or reputation, from activities themselves, and from limits on internal coordination and control (pp.68-9). Fit is found when each activity is consistent with the overall strategy, when activities are reinforcing, and when effort is optimized (pp.71-2). "The essence of strategy," Porter (1996) asserts, "is in the activities—choosing to perform activities differently or to perform different activities than rivals."

While Porter's prescriptions may be useful, they are incomplete. He provides no systematic method for making relevant tradeoffs among activities, for predicting a firm's

organizational structure, or for quantifying fit. For instance, Porter maintains that tradeoffs arise from activities themselves by involving “different product configurations, different equipment, different employee behavior, different skills, and different management systems” or that an activity could be “overdesigned or underdesigned for its use” (1996, 69). Yet, the details of what the tradeoffs involve and how they are made remain unspecified. Even if we assume that a production-cost minimization calculus is used to assess different activity configurations, Porter’s (1996) framework says little about which activities a firm should own and whether or not ownership might constrain choice of position. His prior work (Porter 1985, 38) defines “value activities” as those “activities a firm performs.” Why these activities should be organized within the firm in the first place is not assessed. Clearly, not all activities can be internalized. And so the question remains: for which activities does internalization create and capture value? Without a means of predicting organization choice, some “valuable activities” may be outsourced, or some activities that are costly and offer little value may be internalized, both of which diminish the firm’s ability to capture value. Moreover, the history of a firm’s decisions appears to be of little import in Porter’s approach, which, unlike RBV, suggests that all resources can be readily assembled for a price. Eschewing an operationalizable method of activity analysis, Porter (1996, 65) argues that creativity and insight are required to find an advantageous activity system and accompanying strategic position. But how are managers to choose a strategy that creates and captures value if there is no method to evaluate or at least contrast alternative activity systems and their organizational form?

Resource-Based View

The resource-based view of the firm (RBV) eschews product market approaches to strategy like Porter’s and argues that rents are derived from imperfectly imitable or imperfectly

substitutable resources (e.g., Barney, 1986; Mahoney and Pandian, 1992; Rumelt, 1984; 1987; Wernerfelt, 1984) and that unique capabilities originate within firms (Connor, 1991).¹ The resources subject to imperfect factor markets (Barney, 1986; Dierickx and Cool, 1989) may take several forms. These forms include managerial ability (which provides authoritative coordination and adapts to change) (Penrose, 1959), and firm-specific language, routines, and culture (which ease coordination and knowledge transfer) (Kogut and Zander, 1992; Itami, 1987). Organizational resources are also sometimes referred to as core competencies, which are “the collective learning in the organization, especially how to coordinate diverse production skills and integrate multiple streams of technologies” (Prahalad and Hammel, 1990, 82). Technological resources include physical assets (such as unique equipment), innovations protected by patents, or technological competence (Montgomery and Hariharan 1991; Patel and Pavitt 1994). Technological resources that generate rents generally are not available in factor markets. Similarly, reputational resources, which include consumer trust, brand image, and reputational capital (Itami, 1987; Teece, 1988), are either available at high prices or not available in factor markets. Creating and capturing value is derived from developing, deploying, and protecting these resources (Teece et al., 1997).

Unfortunately, saying that unique and costly to replicate resources are important to generating rents does little to inform managers about what types of unique resources might be joined together to create and capture value. Thus, a unique resource may produce products and

¹ The resource-based view of the firm encompasses research that is often described by different labels, including core competencies (Prahalad and Hamel, 1990), dynamic capabilities (Teece et al., 1994), and the knowledge-based view (e.g., Conner, 1991; Conner and Prahalad, 1996; Kogut and Zander, 1992; 1996; Grant, 1996; Madhok, 1996). The research that comes under these labels, however, focuses on similar research questions and employs a similar perspective. Differences notwithstanding, the resource-based view is therefore considered in its entirety.

services with little value or that are so costly to govern internally that the firm captures little value. Perhaps one reason more precise theoretical predictions have not been forthcoming is RBV's ex post focus on resources at the expense of products and customers. RBV literature acknowledges that resources must be valuable to consumers (Prahalad and Hamel, 1990) and that in an ever-changing environment, product market opportunities are present (Penrose, 1959; Teece et al., 1997); still, the linkage between the demand environment and resources used to serve consumers is rarely discussed. Additionally, RBV has had remarkably little to say about which combinations of resources offer superior strategies (for exceptions, see Miller and Shamsie, 1996; Henderson and Cockburn, 1994; Pisano, 1994). While such work characterizes the benefits of hierarchy, it rarely chronicles the costs of hierarchy, which limits RBV's ability to predict when, for example, either a market or hierarchy is the mode of governance that creates the most value. Thus, a manager using RBV to develop strategy may strive to assemble unique and non-imitable resources but has little guidance on deciding which resources are valuable, which combination of resources create the greatest value, and how to organize these resources to capture the most value.

Transaction Cost Economics

Williamson's (1975, 1985, 1996) influence on strategic management stems largely from his insight into the important role that bilateral dependence and idiosyncratic investments play in shaping individual and firm behavior, and from his insight into the equally important role that alternate organizational forms play in moderating the effects of contractual hazards. Asset specificity is the exchange attribute of primary importance² (Klein et al., 1978; Williamson,

² Three attributes account for most of the interesting differences across transactions: uncertainty about their outcome, frequency of their occurrence, and the degree to which they require investment in highly specific assets.

1979), with low levels of asset specificity organized through the market and higher degrees of specificity generally organized through more hierarchical forms of governance.³

While Williamson's approach offers prescriptions for the transaction-cost economizing organization of a transaction according to the corresponding idiosyncrasy of resources needed for the exchange, it does not offer a prescription for which level of idiosyncrasy to invest in (and thus which type of consumers to target). TCE's theoretical development has happened preponderantly through the lens of transaction cost economizing (Williamson, 1985, xii), where transaction costs are often assessed as *holding technology and products constant*. The inordinate weight assigned to transaction cost economizing is an attempt by Williamson and others to redress previous neglect and undervaluation (Williamson, 1985, 17). And so, in contrast to Porter, Williamson (1991a, 75) adopts the view that "economy is the best strategy," arguing that a firm that concentrates on clever ploys and positioning at the expense of economizing on production and transaction costs will be outperformed by rivals that more effectively economize. Positioning, in Williamson's view, is secondary to economizing. Thus, TCE has been used to inform a firm's choice of structure but has had little to say about which strategy, which accompanying transactions, and which investments a firm should undertake.⁴

However, uncertainty and frequency have no currency in explaining organizational form without the presence of specific assets.

³ Put differently, Williamson's main insight, what he calls the fundamental transformation, is that while a large number of bidders for an exchange may initially exist, the case where the winning bidder must invest in idiosyncratic resources to ultimately provide the good or service transforms the exchange by making the actors bilaterally dependent—it would be costly for either actor to exit the exchange and find another trading partner. In such cases, a far-sighted actor may not be willing to invest in such unique resources unless a governance structure is adopted to insure against opportunistic behavior.

⁴ An important exception is Riordan and Williamson (1985). They introduce the contextual factors of production-cost technology and product attributes into the analysis and show how these factors can affect organizational choice. They develop an analytic model in which production-cost technology and governance costs are both assumed to be a function of asset specificity; the level of specific investment is chosen so as to minimize production and governance costs. They show that internal organization is progressively favored as asset specificity provides greater

In summary, each theory is incomplete. SPA and RBV, by failing to consider the cost of organization, may lead managers to adopt strategies that are too costly to capture value.

Managers employing RBV may fail to create and capture value if unique resources are not valuable to consumers or if they do not fit well with other resources to create and capture value.

Similarly, managers employing TCE may choose governance that economizes on transaction costs but fail to create or capture value because the overarching strategy led to little demand or much competition.

FOUNDATIONS OF AN INTEGRATIVE METHODOLOGY

Integration of all three theories is an ambitious goal. It is all the more ambitious because RBV is generally viewed as a perspective and not a theory. Most would agree that a full integration of all three economic perspectives is beyond the scope of a single paper. I concur. Thus, the focus here is to offer a foundation on which integration could be built and then to suggest how further integration efforts might proceed. This paper maintains that a foundation for integration requires three elements: a common unit of analysis, a set of consistent assumptions, and a common and central decision variable. These elements are described below.

cost reducing effects. Even when a firm is unable to aggregate demand and thus experiences a production cost disadvantage for internal production, internal production will be favored for large quantities (the choice of asset specificity and governance choice is ambiguous for the small output range). Riordan and Williamson also investigate the possibility that asset specificity in terms of product design, assuming no effect on production costs, may yield revenue benefits by shifting the demand curve. Here again, hierarchy is relatively favored over market as the demand enhancement effects of asset specificity increase. Importantly, their analysis extends TCE by demonstrating how technology or demand considerations influence governance choice. Nevertheless, their model's ability to inform firm-level strategy is limited in three important ways. First, the model does not explicitly discuss a firm's positioning vis-à-vis customer preferences. Second, Riordan and Williamson acknowledge that all types of asset specificity are considered equivalent in the model. Third, Williamson and Riordan analyze the organization of a single transaction, which precludes the possibilities that (1) a specific asset effects both demand and production costs and (2) assets may be complementary.

Common unit of analysis

A first step in providing a foundation for integration is to choose an “appropriate” unit of analysis. An appropriate unit of analysis in this case is one that is consistent with the different theoretical perspectives so that predictions emanating from each perspective are comparable and combinable. At first glance, one might conclude that no unit of analysis consistent with all three perspectives. SPA employs the activity system; TCE employs the transaction; and there appears to be little consensus about RBV’s unit of analysis (Foss, 1998). However, a deeper inspection of these three perspectives does locate a common unit of analysis: the activity chain.

Porter’s value chain⁵ (Porter, 1985, 39) is a disaggregation of a firm into its strategically relevant and technologically distinct activities. Thus, the basis of Porter’s analysis is a presumption that activities in the vertical chain can be logically and operationally unbundled.⁶ Although Porter implicitly defines a value chain within a firm’s boundaries (Porter, 1985, 39), most observers would argue that the entire constellation of activities—the activity chain—involved in producing a good or service, irrespective of the firm’s extant boundaries, is the relevant unit of analysis.

Williamson (Williamson, 1985, 1) consistently maintains the *transaction* as the unit of analysis—a transaction being a technologically separable interface where one stage of activity terminates and another begins. Nonetheless, Williamson discusses bundling transactions into

⁵ Although “value chain” could imply a single sequence of activities, Porter’s use of the term is more akin to a constellation of activities that are not necessarily sequential. The use of value chain in this paper is consistent with a constellation of activities.

⁶ Porter expends a considerable amount of text developing ways to unbundle and identify activities by defining the value chain (Porter, 1985, Chapter 2). Porter’s 1996 paper, “What is Strategy?” offers a refinement for analyzing the value chain—a refinement called activity systems analysis—that again emphasizes unbundling the constellation of activities (or potential activities) a firm engages in.

firms and unbundling firms into transactions. In his treatment of a firm's efficient boundaries (1985, pp. 96-98), Williamson applies his framework to a chain of vertical activities involved in production. He conceives of the vertical chain as a set of technologically separable stages of production—activities—in which each stage may be involved in multiple transactions with other stages. Williamson assumes independence among transactions and unbundles the vertical chain to consider one transaction at a time; however, he does view the entire activity chain as relevant. He focuses on individual transactions instead of all the activities in aggregate because “common ownership of some [activities]—the core—is sufficiently obvious that a careful, comparative assessment is unneeded” and that “there is a second set of transactions in which own supply is manifestly uneconomic” (Williamson, 1985, 98). Notice that Porter's and Williamson's definitions of an activity are essentially identical and that Williamson's preoccupation with individual transactions is in the context of the entire activity chain as well as those other activities into which the firm integrates. Thus, the activity chain involved in producing a good or service implies a constellation of transactions and is consistent with TCE's analysis of firm boundaries across all transactions so long as each transaction within the set of activities is considered individually.

RBV assumes the resource is the unit of analysis. This unit, however, is problematic because in actuality it implies an array of units of analysis. For instance, while some have maintained that RBV focuses on the key success factors of individual firm behavior to achieve firm specific advantages (Mahoney and Pandian, 1992, 369), others have remarked that the unit of analysis is not clear and could include, for example, “decisions and decision premises, transactions, contracts, activities, processes, routines, capabilities, strategic business units, core competencies” (Foss, 1998, 19). This variation makes it difficult to adopt a single unit of

analysis; but, while all these RBV units differ, most resources can pragmatically be aggregated to the level of an activity. For instance, it seems reasonable to assume that most decisions, decision premises, transactions, contracts, processes, routines, capabilities, and core competencies are or can be compartmentalized and aggregated to each activity in which they reside. A few alternative units of analysis, such as strategic business units and multi-activity capabilities, might encompass several activities, although it is not clear whether such units might nonetheless be compartmentalized. Of course, aggregation to the activity level may obscure some of the micro processes that create, define, and sustain various organizational, technological, and reputational capabilities or may under-emphasize competencies like firm-specific language, routines, and culture (Kogut and Zander, 1992; Itami, 1987)—all of which can span activities. Yet, aggregating such resources at the activity level provides the benefit of allowing many RBV predictions to be linked with SPA and TCE within the activity chain as the unit of analysis. Acknowledging these caveats with respect to RBV, this paper nonetheless proceeds by employing the activity chain as the unit of analysis.

Consistent assumptions

A second step in providing a foundation for integration is to adopt a set of underlying assumptions that are consistent or at least not conflicting across perspectives. Porter (1996) makes no explicit behavioral assumptions about human behavior, although his economic approach is predicated on self-interest. He does, however, explicitly assume that consumers are heterogeneous and restricts his attention to those environments where no one set of activities and resources optimally serves all consumers. These two assumptions are necessary conditions for more than one feasible market position to exist, and thus are necessary for strategy to be relevant. If consumers are homogeneous, then differentiated market positions are ruled out. If

one set of activities and resources could effectively serve all consumers, then no firm could differentiate its position.

In contrast, TCE's primary assumptions are behavioral; but they are not in conflict with SPA. TCE rests on two behavioral assumptions: economic actors are subject to bounded rationality and opportunism, which make complete contracting infeasible.⁷ The former is irrelevant to SPA and thus not inconsistent. The latter is a more severe form of self-interest but nonetheless is consistent with SPA's implicit assumption of self interest. (For a comparison of differing degrees of self-interest see Williamson, 1985, 50). In sum, TCE's principal assumptions refer to human behavior, whereas SPA's principal assumptions refer to the structure of demand and the feasibility of technological alternatives. Both sets of assumptions are essentially orthogonal and thus are not inconsistent.

As with the unit of analysis, the underlying assumptions of RBV are less clear and less agreed upon in the literature than those found in the other perspectives. Broadly speaking, the assumptions underlying RBV focus on factor input markets and on the cognitive limitations of man. RBV assumes that at least some resources are imperfectly imitable or mobile (Barney, 1986), which creates an opportunity for generating and capturing rent. The assumption that at least some resources are difficult to trade or replicate is not inconsistent with the assumptions described above. Indeed, this assumption is consistent with several of Porter's themes and may represent an additional implicit assumption of his perspective.

Other RBV research focuses on the cognitive limitations of man. For instance, cognitive limitations have been the primary operating assumption used to understand the advantages of

vertical integration in the knowledge-based view (KBV). While this assumption equates to TCE's bounded rationality assumption, KBV scholars have argued that opportunism is not a necessary assumption with respect to firm boundaries (e.g., Conner and Prahalad, 1996; Kogut and Zander, 1992; 1996; Madhok, 1996; Ghoshal and Moran, 1996), which represents an inconsistency between TCE and KBV. Rebuttals to these arguments have been forthcoming (i.e., Foss, 1996a; 1996b; Heiman and Nickerson, 2002; Williamson, 1996). Unfortunately, resolving this debate is beyond the scope of this paper, for it would pose an impediment to full integration of all three perspectives. We note, however, that others have developed a knowledge-based theory of governance choice that includes both cognitive limitations and opportunism that resolves inconsistencies found in prior KBV logic (Nickerson and Zenger, 2001). Indeed, other RBV scholars (e.g., Mahoney and Pandian, 1992) argue that RBV does fit comfortably within the conversation of organizational economics and that it is linked to TCE because resource combinations are influenced by transaction cost economizing. A pragmatic response, one adopted here, is to note that the preponderance of theory and evidence argues for the inclusion of opportunism as an underlying assumption and to mention that the foundation developed herein is focused more on assets and less on knowledge. Thus, to move forward with linking these three perspectives, the behavioral assumption of opportunism is assumed.

In sum, SPA's assumptions refer to the structure of demand and the feasibility of technological alternatives; TCE's assumptions refer to human behavior; and RBV's assumptions principally refer to the structure of factor-input markets and human behavior. But for the issue

⁷ TCE also relies on an additional assumption. It "relies in a general, background way on the efficacy of competition to perform a sort between more and less efficient modes and to shift resources in favor of the former...over intervals of five to ten years" (Williamson, 1985: 22-23).

of opportunism described above, the assumptions underlying SPA, RBV, and TCE are not inconsistent.

Central Decision Variable

All theories require a central decision variable and so too does any integrative perspective. The central decision variable offered for linking these perspectives is the “resource profile” in the activity chain. The term *resource profile* is found in the RBV literature, which uses it loosely to refer to the set of resources owned by the firm (e.g., Wernerfelt, 1984; Mahoney and Pandian, 1992). However, the use of the term here is more expansive—it encompasses resources across the entire activity chain, not just within the firm (so that we can disentangle resources from their ownership)—and is more precise in the way it is used to characterize resources. This paper defines a resource profile as the *set* and *type* of resources and capabilities employed in the activity chain used to produce a good. The *set* of resources is defined as those resources deployed in each activity in the activity chain. While a type of resource could have many meanings, *type* is defined here as the degree to which resources in one activity are specialized (unique and idiosyncratic within an activity) or co-specialized (unique and idiosyncratic with respect to other activities), both of which are sources of competitive advantage.

To ground the definition of resource profile more precisely and to begin to lay a foundation for formalism, consider an activity system \mathbf{A} with n activities, not necessarily sequentially connected (for instance, activity could have many interconnections). \mathbf{R} , the resource profile, is an $n \times n$ matrix. The magnitude of each element R_{ij} corresponds to the degree to which the resources in activity i are co-specialized with respect to activity j , which can be measured by the cost to redeploy the resources in the activity to their next best use. Thus, R_{ij} ,

where $i \neq j$, is the level of asset specificity in the “transaction” between activities A_i and A_j . $R_{ij} > 0$ indicates a contracting hazard generated by asset specificity between these two activities. The TCE literature relies precisely on this information about the nature of contracting hazards to predict the transaction-cost economizing mode of governance for each activity. The diagonal of A also is informative. The diagonal elements R_{ii} are used to measure the degree to which resources within an activity are specialized and superior to other substitute resources, which can be measured as the cost to use the next best resource (R_{ii} would be negative, indicating inferiority, if superior substitute resources existed). Whereas co-specialization is the currency of TCE, specialization and the superiority of a particular resource over a substitute is precisely the focus of RBV. R thus characterizes the uniqueness of resources between activities as well as the uniqueness of resources within an activity for all activities in the activity chain.

Because a range of investments is likely to be available for resources in each activity (i.e., investments usually can yield varying levels of specialized and co-specialized resources), managers can choose from a variety of resource profiles for any particular activity chain. The choice of resource profile facilitates integrating the three approaches because it ultimately provides the foundation of competitive advantage proposed by each of the three economic perspectives. For instance, the choice of specialized and co-specialized resources is foundational in SPA for choosing a unique position, making tradeoffs, and forging fit among activities, which leads to competitive advantage. Specialized resources are also the source of competitive advantage in RBV. In TCE, co-specialized resources yield production cost advantages or beneficially affects demand and, when organized in a transaction-cost economizing way, yield survival benefits. Though hidden by the use of different lexicons, the resource profile and the

degree to which resources are specialized and co-specialized are common and central to SPA, RBV, and TCE's sources of competitive advantage.

POSITIONING-ECONOMIZING PERSPECTIVE

The search for feasible and optimal strategies

With these foundational elements in place, the positioning-economizing (PE) perspective can now be elaborated. Put simply, the PE perspective assumes that a manager's goal is to search for and deploy a resource profile that is profitable; preferably one that maximizes expected profit. Each resource profile implies expected demand, fixed and variable production costs, and governance choice for each activity with its attendant fixed and variable governance costs, all of which must be considered in calculating expected profits for each resource profile. Because searching for the optimal resource profile is challenging, the PE perspective separates the search into two steps. The first step is to identify those resource profiles that are feasible—i.e., a feasible strategy is one that yields non-negative expected profits—in the existing competitive landscape without considering potential competitive responses. The second step, if possible, is to choose the feasible profile with the greatest expected profits after competitive responses are included in the calculus. The reason for separating these steps is that, because of cognitive limitations, it may not always be fruitful or possible to assess competitive dynamics to identify the optimal strategy, in which case selecting a feasible strategy may be the best a manager can do.

The discussion below describes the PE perspective and the search process in more detail. It begins by providing a formal description of the manager's goal of identifying feasible resource profiles and discusses its implications. It then discusses challenges to identifying the optimal

resource profile and provides some pragmatic insights into how managers, even when cognitively limited, can search for feasible strategies.

The Manager's Objective Function

Define each resource profile realization as a strategy. Each alternative strategy implies a market position because the resource profile implies products or services that can be delivered by the profile (Wernerfelt, 1984) and thus implies a corresponding production cost along the chain. Assuming that each activity is governed according to TCE precepts, the resource profile also implies a transaction-cost economizing governance mode with its attendant governance costs for each activity, which determines firm boundaries throughout the activity chain. For instance, in the extreme case, the entire activity chain might be vertically integrated. Otherwise, efficient governance implies several firms operating within the activity chain and owning different sets of activities. Ultimately, \mathbf{R} and governance considerations determine and configuration of firms in the activity chain.

Define a feasible strategy as one that yields non-negative profit for each activity in the activity chain. Production costs notwithstanding, the feasibility of any particular strategy thus depends on two constraints: the nature of demand and the cost to govern and assemble and access the resource profile. Eq. (1) describes formally the managerial goal of identifying feasible strategies:

$$\left\{ \mathbf{R} : \text{Max}_{\{p_{fj}\}} \sum_{j \in A} (q(p_{fj}, \mathbf{R}) [p_{fj} - c_{fj}(G(\mathbf{R}), \mathbf{R})] - F_{fj}(G(\mathbf{R}), \mathbf{R})) \geq 0 \right\} \text{ for } \forall f. \quad (1)$$

Eq. (1) seeks to represent the set of all resource profiles, \mathbf{R} , that yield non-negative profits (i.e., a feasible profile) for any firm, f , in the activity chain. This equation states that for a strategy to be feasible, each firm in the activity chain must earn non-negative profit. Profit is maximized with

respect to the price of the final good or service, p_{fj} , and summed over all activities j in the activity chain, \mathbf{A} . The term $q(p_{fj}, \mathbf{R})$ is the demand realized from price p_{fj} received from the products and services generated by the resource profile. The term $p_{fj} - c_{fj}(G(\mathbf{R}), \mathbf{R})$ is the price cost difference for each activity where the variable cost c_{fj} includes both a governance-cost component, $c_{fj}(G(\mathbf{R}), \cdot)$, and a production-cost component, $c_{fj}(\cdot, \mathbf{R})$. Finally, $F_{fj}(G(\mathbf{R}), \mathbf{R})$ indicates that fixed costs may be due to a fixed governance cost component, $F_{fj}(G(\mathbf{R}), \cdot)$, and a fixed production cost component, $F_{fj}(\cdot, \mathbf{R})$.

Identifying Feasible Strategies

This formal representation of feasible strategies captures the essence of the positioning-economizing perspective. Although a closed-form solution of Eq. (1) may be difficult to obtain because of cognitive limitations both in solving for \mathbf{R} and in estimating governance costs, the representation is useful because it sharpens the focus on management's key challenges for choosing a strategy as well as bringing attention to those areas in need of additional research. First, management must search across alternative activity chains and alternative resource profiles within each activity chain to identify feasible strategies. By itself, this search is a complex problem because, at least theoretically, alternative activity chains and resource profiles could be infinite in number, even for an activity chain with few activities, because the elements of \mathbf{R} are continuous parameters. Moreover, the business landscape over which managers must search is likely to be rugged, which implies that closed form solution is not feasible and simple search algorithms for finding feasible strategies (algorithms like hill climbing) will not be effective.

Fortunately, searching for feasible strategies is not as impossible as it may first appear because practical consideration may greatly reduce the number of alternative activity chains and resource profiles to assess. To create value, activities in the chain must be complements

(mathematically speaking, complementarity in value for any two activities (A_i, A_j) in an activity chain occurs when $\partial^2\pi/(\partial A_i \partial A_j) > 0$ for $\forall i \neq j$), else the value produced by one activity would be entirely independent of the value produced by another activity. Practically speaking, assessing only complementary activity chains should limit the number of alternative chains considered. Similarly, resources within a profile should be complements. So, for example, investment to improve a firm's brand image with respect to quality is likely to be money poorly spent if there is not a corresponding investment to actually produce a product or service of corresponding quality. This approach is consistent with and adds precision to Porter's notion that activities should be consistent and should reinforce each other as well as optimizing effort. In most instances, such complementarity likely will be transparent to individuals with deep contextual knowledge of an activity chain. The number of alternatives may be substantially reduced further if at least some resources (of which there may be many) can be categorized (e.g., generic, specialized, co-specialized) instead of using continuous parameter values. For example, technology may be such that only three or four alternative resource combinations exist for the processing of steel. To be sure, examining alternative activity chains and resource profiles may involve extensive search and evaluation. Nonetheless, doing so may be manageable by omitting obviously inferior alternatives.

Second, Eq. (1) focuses attention on mapping demand for the products and services produced by the resources in the resource profile. Such a mapping requires detailed knowledge of customers' preferences and their willingness to pay, and so it represents a difficult challenge for managers. Such a mapping was a central motivation behind Wernerfelt's (1984) discussion of a resource-based view of the firm. He argued that even a simple resource-product matrix (1984, 176) could provide a powerful tool for selecting profitable strategies. Unfortunately,

instead of developing a theory about this mapping, RBV has focused its theoretical development on questions regarding the source of uniqueness and inimitability. Yet perhaps the most successful empirical application of RBV is research on the direction and performance of diversification moves, which resonate with such a mapping. Broadly speaking, this growing literature empirically links resources within the firm in period t to diversification moves in period $t+1$ and supports the hypothesis that a firm's pre-existing resources shape successful diversification moves.⁸ However, while this research stream supports the relevance of mapping resources to demand, it has not done so directly. Resources remain aggregated at the firm level, and using industry classifications as proxies for demand make the information garnered from these studies of little direct use here. A more comprehensive understanding of mapping resources at the activity level to demand awaits further theoretical development and empirical testing.

The application of the positioning-economizing perspective thus may seem limited because the relationship between resources in activities and demand is at an early stage of development. However, practitioners have at their disposal a variety of tools that can help them map this relationship. For instance, individuals with deep knowledge of the activity chain will likely know how resources combine to produce products and services. This product-level

⁸ The central empirical measure in such diversification analyses is the measures of relatedness between resources and markets. Initial research used proximity within the SIC system to measure the degree of relatedness (Montgomery and Wernerfelt, 1988; Chatterjee and Wernerfelt, 1991). Others used accounting-related measures such as R&D intensity, advertising intensity, and capital expenditure intensity as proxies for underlying resources and measure relatedness based on the similarity of these measures in different industries (Montgomery and Hariharan, 1991). Research progressively moved from such aggregate measures to more refined measures of the underlying resources. For instance, Fajoun (1994) and Coff and Hatfield (1995) use a relatedness measure that captures the degree to which two industries use the same types and proportions of human expertise. Robins and Wiersma (1995) use Scherer's technology inflow-outflow matrix to operationalize industry relatedness. Silverman (1999) uses patents and their likely applicability to various industries to operationalize relatedness.

information can be used with now standard market research techniques (like conjoint analysis, psychological mapping, etc.) to provide insight into the shape of customer preferences and willingness to pay. Similarly, managers can undertake marketing experiments either to combine resources to understand the relationship between resources and products or to test consumer response to new products. Indeed, these tools are commonly taught in MBA programs and are used to assess market opportunities. The difference here is that managers must also develop deep knowledge of the activity chain to connect resources in activities to demand.

Third, Eq. (1) focuses attention on the mapping between resource profiles and the governance in the activity chain. Put differently, managers must consider the costs to access and govern resources across the activity chain when identifying feasible strategies. TCE informs the choice of *make* versus *buy*, and recent research explores the choice of various forms of hybrids as well (e.g., Oxley, 1997, 1999). TCE also claims to inform internal organizational choice (e.g., Williamson 1975, 1985 Chapter 10), but its contributions here remain underdeveloped. Although TCE's predictive power for governance choice has stood the test of numerous empirical studies (Shelanski and Klein, 1995; Boerner and Macher, 2001), it nonetheless is presently limited in its ability to predict the actual costs of governing exchanges. Indeed, only two empirical papers (Masten et al.; 1991; Mayer and Nickerson, 2001) provide quantitative estimates of the cost of governance at the transaction level.⁹ While TCE asserts that comparative

⁹ Although few empirical papers provide estimates of the cost of organization, several papers do report performance implications of governance choices from panel data. For instance, Armour and Teece (1978) found that large petroleum companies organized in a multidivisional structure, which is predicted to be superior for managing diversified corporations (Williamson, 1975), posted higher rates of return than their non-multidivisional counterparts between 1955 and 1964. Silverman, Nickerson and Freeman (1997) found that inappropriate governance of certain labor and capital market transactions increased a carrier's failure rate. Sampson (2001) found that inappropriate governance in research joint ventures lowers the patent rate. In addition, extant cross-sectional TCE studies have investigated alignment and comparative negotiation costs (Walker and Poppo, 1991) or customer

analysis is needed to understand these costs, empirical research has yet to provide even a range of estimates for the cost of alternative governance modes in different contexts. Future research must focus on such estimates if we are to accurately predict governance costs with respect to resource profiles.

Without quantitative estimates, managers nonetheless may have ways to cope. Managers needing to map the resource profile to variable and fixed governance costs might rely on three alternatives: 1) they might use imperfect foresight to estimate costs; 2) they might use estimates either from personal experience or from benchmarking other firms with related activities and organization structure; or 3) they might use approximate firm-level rules of thumb (e.g., administrative costs are 50% of internalized production costs). These alternatives are clearly limited and imprecise, which suggests that any research that helps to quantify the cost of governance is of great value to managers.

Thus far, Eq. (1) and the discussion of identifying feasible strategies implicitly assume that all managers face the same set of feasible strategies. This need not be the case. Indeed, RBV would predict that this is unlikely to be the case unless all firms are *de novo*. RBV would in fact argue that the set of feasible strategies is unlikely to be symmetric for *de alio*¹⁰ firms because path dependence may lower or in some cases raise a firm's cost to assemble and access certain resources. For instance, a firm may improve upon its resources in various activities through learning-by-doing so that (1) they are increasingly unique (e.g., Dierickx and Cool,

satisfaction levels (Mohr and Spekman, 1994; Goodman et al. 1995; and Poppo and Zenger, 1998) using Likert scales or internal management costs (Masten et al. 1991).

¹⁰ The term *de alio* was introduced by Carroll et al. (1996) to describe existing firms that laterally entered a new market. *De alio* and *de novo*, which means a newly formed firm, are used here because they capture the difference between those managers that are likely to have symmetric feasible strategy sets (*de novo* firms) and those managers that are likely to have asymmetric feasible strategy sets due to path dependence (*de alio* firms).

1989) or (2) they generate slack resources (e.g., Penrose, 1959). Such improvements yield cost advantages for assembling new resource profiles that include them. In contrast, firms may develop core rigidities (Leonard-Barton, 1992) within activities that raise the cost of redeploying resources in new strategies.

Path dependence can affect the search for feasible strategies in two ways. First, it can help narrow the set of activity chains and resource profiles to be assessed. For instance, managers may want to focus their attention on activity chains and resource profiles that include highly specialized resources (i.e., $A_{ii} \gg 0$). Doing so would mean that managers consider only those profiles that include the specialized resource, which also may include additional investments in co-specialization between the specialized activity and other activities.¹¹

Alternatively, learning-by-doing can deepen co-specialization among activities, which, taken as a cluster of activities, would lead to similar narrowing of strategies to assess. Thus, path dependence may shape as well as limit the range of strategies a manager considers. Second, path dependence can affect the cost of assembling the resource profile (i.e, governance) as well as lowering production costs. Path dependence may make feasible some strategies that are infeasible for other firms or may increase the value created and captured by otherwise feasible strategies. Although not discussed here, a firm that already exists and is considering de alio entry implies that the cost of change, which might vary by the strategy to be adopted, should be considered. Whether providing cost advantages or disadvantages, path dependencies associated with a firm's pre-existing resource profile are likely to be unique to each firm because experience tends to differ across firms. Thus, whether assessing current strategy or assessing

possible diversification moves, such cost differences will likely lead to sets of feasible strategies that differ by firm.

In conclusion, while the details have not been worked out here, path dependence may result in feasible sets of strategies that differ by firm. Of course, there may be a subset of feasible strategies that are symmetric across firms because they involve assembling resource profiles for which the firms do not have any resource advantage or disadvantage. Nonetheless, some strategies for de alio firms are likely to be feasible only for that firm. It is important to note that the described effects of path dependence for de alio strategy choice implicitly assume that extant resources are not fully utilized and are fungible for producing products and services that differ from the existing strategy. While Penrose (1959) laid a strong foundation for the former assumption, the latter deserves further consideration. If, as TCE predicts, the foundation of a firm's boundaries is co-specialization among activities, then the fungibility of these resources to other strategies, particularly in different activity chains, is limited because co-specialization implies limited fungibility and vice-versa. Only specialized resources are fungible in that they may have many different types of buyers that use the resources for a variety of purposes. So, while firms may deepen the co-specialization of their resource profile through learning-by-doing, using these resources advantageously in de alio entry may be severely limited.

¹¹ A deepening of specialization with little or no co-specialization with other activities would argue for the divestment of the activity according to TCE's alignment predictions. As Silverman (1999, 1112) points out, RBV alone provides no predictions of divestment (Mahoney and Pandian, 1992, 376).

Identifying an Optimal Strategy

For settings in which the competitive environment is concentrated and thus few competitors exist, the predominant methodology for analyzing competitive strategy is based on game theory (Shapiro, 1989, 125). Game theory provides a great diversity of models for analyzing how commitments, which are largely nonredeployable investments in resources, and how the timing of these commitments shape competitors' behavior. Equilibrium solutions identify optimal strategies. Much of the game theoretic literature on competitive strategy typically assumes a strategy space that is large and continuous, as in a continuous measure of plant capacity or investment in intangible assets, and assumes participation constraints such that firm profits must be non-negative. The positioning-economizing perspective potentially adds value to these types of analyses in three ways. First, it provides a consistency check: the optimal strategy from an analytic solution must be a member of the feasible strategy set identified by the positioning-economizing perspective. If not, then the structure of the game may be inconsistent with the actual environment, or the analysis generating the feasible strategy set may be flawed. Second, the feasible strategy set may help to limit strategy choice when the game's solution involves multiple equilibria. Third, for those game theoretic models that cannot be solved analytically, the feasible strategy set can greatly reduce the complexity of simulation-based solutions by limiting the strategies assessed.¹²

Game theory, however, is not always useful for choosing strategies. It is well known that game theory has proven most useful in competitive environments with only a small number of

¹² One might consider using the feasible set to limit the strategy space for an analytically solvable game, but doing so would likely complicate matters by making the strategy space non-convex without adding any additional equilibria. The more common approach is to solve such problems without constraints and then evaluate whether equilibria fall within constraints.

large firms (e.g., Shapiro, 1989), such as in oligopolies. Other scholars suggest even more restrictive conditions for which game theoretic analysis is appropriate (e.g. Teece et al., 1997, 511-513). When game theory is not useful for choosing an optimal strategy, the feasible strategy set identified through the positioning-economizing perspective remains valuable. In such settings, the challenge for managers is to choose a strategy that is more likely than other strategies to be profitable and survive. (Identifying an *optimal* strategy is presumably impossible because of uncertainty or bounded rationality.) It is precisely the set of feasible strategies that meet these criteria. By definition, feasible strategies are expected to be profitable given the current environment.¹³ Moreover, again by definition, both the co-specialization and specialization of resources that form the basis for efficient firm boundaries will be costly to replicate, and efficient governance alignments are likely to convey survival advantages compared to those firms that rely on generic resources or misalign at least some activities. Thus, by separating a manager's search task so that feasible strategies are first identified, the positioning-economizing perspective can inform both game theoretic and survival-based approaches to optimal strategy identification.

Practitioner's Methodology

This section concludes by offering a methodology for practitioners to identify feasible strategies through a positioning-economizing perspective. This methodology is differentiated for de alio and de novo firms. For the former, managers should begin by analyzing the extant set of activities and the resource profile within the firm. Next, they should identify those activity

¹³ Of course, the environment can change, turning current feasible strategies into unprofitable strategies. With bounded rationality and assuming nonzero uncertainty, the strategies that become unprofitable are difficult to predict ex ante.

systems for which at least one of the existing activities might be redeployable (including in the current activity chain). They must then narrow the set of activity chains and resource profiles to be considered and analyze the profitability of each strategy using the tools described above. Once a feasible set of strategies is identified, they must evaluate whether or not an optimal strategy is identifiable. Of course, an existing firm may want to consider strategies for which it has no past experience. Doing so would equate to analysis for a de novo entrant so long as the firm has no relevant core rigidities. The methodology for de novo entry is almost identical to that of de alio entry, with two exceptions. First, since no extant activities exist, they can not be used to constrain an activity chain or a research profile search. Thus, the search for feasible strategies may involve a larger number of activity chains for de novo than for de alio entry, or they may be limited by the possession of existing resources such as specialized knowledge of the founders or intellectual property. Second, because of the greater scope, it may be useful to start the process by first looking for market opportunities, which then might limit search costs.

It is apparent from this practitioner methodology that searching for feasible strategies may be costly, especially if information about demand, production cost, governance cost, and competitor responses is not readily available. Such costs raise the important question of how frequently the search for feasible strategies should be undertaken. The frequency of search should depend on the opportunity set as well as on the cost for searching. The opportunity set is likely to change when the environment—competitors, demand, or technology—changes. Also, resource-based opportunities such as the generation of slack resources or learning-by-doing potentially offer new opportunities. Both Porter and Williamson provide useful guidance in this respect. Porter (1996, 74) asserts that strategic positions should have a horizon of a decade or more. Williamson (1985: 22-23) believes that competition is generally a weak form selection

environment that takes 5 to 10 years, which suggests that a similar time frame is needed to reward feasible strategies. More importantly, idiosyncratic investments are sunk, and firms with these types investments that reposition frequently do so at their own peril.

DISCUSSION

If we grant for the moment that the positioning-economizing (PE) perspective portends integration of the three approaches, what value would such integration offer? To assess potential value, reconsider some of the main predictions from each perspective to see how the PE perspective can refine, extend, or add new predictions.

Consider Porter's generic strategies of cost leadership, differentiation, and focus. Cost leadership typically derives from economies of scale. Such economies can come from highly specialized investments in a single activity or from co-specialization among production activities to achieve low cost. Thus, organizationally, a firm pursuing cost leadership is either specialized in a single activity or vertically integrated into those activities that are co-specialized.¹⁴ Differentiation strategies typically involve co-specialization among only a few downstream production activities and marketing to produce improved product or service features rather than economies of scale. Those differentiation strategies that are feasible will involve vertical integration into only those co-specialized activities that provide product differentiation. Finally, focus strategies, which principally involve customized products or services, will lead to either specialists for single activities or vertical integration into only those activities that provide the

¹⁴ While economies of scale is the featured supportive element of most assessments of cost advantage, the resources underlying these economies arguably are idiosyncratic—either because of co-specialization or because they are not readily redeployable within the industry or other industries (e.g., Schleifer and Vishny, 1992).

associated product or service customization. If the assumptions hold, then these predictions either are new to SPA, or at least offer refinements.

The PE perspective also can offer refinements to RBV. First, the PE perspective provides a methodology for evaluating resource value that avoids the claimed tautological nature of RBV's present setup (for a discussion of RBV's tautological nature, see Priem and Butler, 2001). Second, the PE perspective focuses attention on co-specialization and complementarities among resources instead of relying solely on the potentially more narrow inimitability of individual resources. Perhaps the most important refinement is in predictions regarding related and unrelated diversification. The PE perspective would predict that performance advantages from de alio entry arise only in those product markets in which pre-existing activities and co-specialized activities are to some degree fungible. It also would predict for unrelated diversification that pre-existing activities offer no advantages, and may have disadvantages stemming from core rigidities, when activities are not fungible. Both predictions appear to be more precise than those found in the extant RBV literature. However, testing such propositions calls for more microanalytic measures of fungibility than is now found in the literature.

Finally, the PE perspective extends TCE by suggesting how the cost of governance may shape strategy choice because it facilitates considering transactions in aggregate. It also provides a methodology for explaining why managers choose particular transactions as well as why they choose particular levels of specialization for those transactions.

Unfortunately, this potential value depends on relationships that have not been fully developed, which is why the PE perspective cannot yet claim to fully integrate the three perspectives. To realize the PE perspective's benefits, further theoretical and empirical work must build on the proposed foundation; such work must define \mathbf{R} , $q(p_{ij}, \mathbf{R})$, $c(G(\mathbf{R}), \mathbf{R})$, and

$F(G(\mathbf{R}),\mathbf{R})$ and examine them empirically in a variety of contexts; only then can a complete theoretical integration take place.

Some empirical work on understanding some of these relationships in the context of the PE perspective has, however, begun, and it demonstrates both the ability and value of undertaking research in this area. Nickerson et al. (2001), for instance, apply the PE perspective to identify and study business strategies found in international courier and small package (IC&SP) services in Japan. They identify that the IC&SP activity chain consists of five activities: domestic trucking, domestic freight forwarding, international air transit, foreign freight forwarding, and foreign trucking. Using a three-stage endogenous self-selection model, they empirically evaluate the linkages between alternative resource profiles, focusing on co-specialization of information technology among activities, market position, and firm boundaries. Their analysis supports the proposition that a courier's IT resource profile is chosen to support the courier's market position as a package specialist, full-service courier, or document specialist. Document specialists employ highly co-specialized IT across all activities, which corresponds to the off-diagonal elements of \mathbf{R} being large and positive. Full-service couriers, which carry documents and parcels, have moderate levels of co-specialization across the three transport activities and freight forwarding. Package specialists have low levels of co-specialization between freight forwarding and transport activities. (The analysis asserts that co-specialization between the two freight-forwarding activities is always great.) The analysis also shows that firm boundaries vary with the resource profile: the more co-specialized resources in each activity, the more likely the activities are to be vertically integrated. The research demonstrates that the differing strategies correspond to differing prices and attract different types of customers, which equates to different resource profiles supporting different market positions. Thus, Nickerson et

al.'s analysis finds the PE perspective useful for explaining positioning, resource profile, and firm boundaries associated with different strategies. It also provides at least one empirical methodology for undertaking related research.

Even if theoretical and empirical progress is made, however, the PE perspective retains several limitations. As described above, the activity chain as the unit of analysis may limit both the consideration of resources that span several activities and insight into micro-mechanisms that generate unique resources. The impact of this weakness on the PE perspective's ability to inform strategic choice is difficult to assess at this time. The perspective also bypasses the debate over opportunism between KBV and TCE scholars. Should the debate be resolved in favor of the KBV perspective, application of the PE perspective may be limited to those environments that rely more on tangible (and on some intangible) resources than on knowledge. Additionally, the cost of changing from one strategy to another must be considered, which the PE perspective outlined above does not presently predict. Such costs may depend not only on the past strategy but also on the new one, and may thus further narrow the range of feasible strategies.

CONCLUSION

Understanding how managers can create and capture value is a complex topic. Due to this complexity, most theories and perspectives look for partial explanations. In doing so, some factors are often implicitly held constant or not considered at all. This paper observed that SPA, RBV, and TCE each offer partial explanations and prescriptions, which, if managers followed in isolation, could fail to create and capture value. In response, the paper proposed to integrate the three perspectives into what is called the positioning-economizing perspective—to relax the constraints of what is held constant or to add constraints to what is not considered. Although a

full theoretical integration was beyond the scope of the paper, the paper nonetheless offered a foundation for integration. A unit of analysis (the activity chain), a consistent set of underlying assumptions, and a central decision variable (the resource profile)—all of which span most if not all of the three perspectives—were identified.

These foundational elements were used to formally describe the optimization problem for identifying the set of feasible strategies, taking into account the extant demand environment, the idiosyncrasy of resources in alternative resource profiles, and the governance of each activity. Formally stating the optimization problem then helped to define possible research directions needed to realize the proposed integration. It also led to a two-fold discussion: 1) how managers might cope with integrating the three perspectives in practical ways, and 2) the role of path dependence in conditioning the set of strategies that are feasible. The paper also described how the set of feasible resource profiles (i.e., strategies) usefully inform game theoretic approaches for identifying an optimal strategy as well as usefully informing strategy choice in environments where selection pressure eventually sorts successful from unsuccessful strategies. These discussions led to a practical managerial methodology for identifying feasible strategies. Finally, the paper illustrated the potential theoretical and practical value of the positioning-economizing perspective by illustrating how it might refine, extend, or add new predictions to each of the theories that comprise it.

Rumelt et al. (1991, 7) assert that firm strategy is a collection of related and reinforcing resource allocation decisions combined with actions that implement them. Partial explanations have added much value to our understanding of the firm strategy choice. And while it is surely the case that the marginal value of further developing such partial explanations is great, it also is surely that case that the potential value from integrating these partial explanations should be

explored. This paper provides one such exploration of three leading economic approaches to strategy and argues that further development of a combined SPA-RBV-TCE perspective offers value to both academics and managers.

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