



SECTION 4. HIERARCHICAL STRATEGIES AND THE RESOURCE-BASED VIEW

Enhancing the prescriptiveness of the resource-based view through Porterian activity analysis

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Abstract

Purpose – Almost since the inception of the resource-based view (RBV), critics have complained that the view is weak in the prescriptive dimension. A recent statement of this critique is by Priem and Butler, who argue that the RBV does not address value creation. One aspect of this is that the link between resources and value creation is black-boxed. The paper aims to argue that a Porterian activity analysis with a focus on activity drivers can remedy this weakness, and how it brings into focus important implementation issues that are neglected in the RBV.

Design/methodology/approach – The study extends Priem and Butler's critique of the RBV by examining the RBV literature in light of Porter's activity-based framework.

Findings – The resource-based logic has been gainfully applied in many fields other than strategy. However, because it lacks the concept of activities, the paper argues that it has not reached its full potential in the field of strategy. Formally including the concept of activities and activity drivers addresses the prescriptive shortcomings of the RBV.

Practical implications – Porter's activity drivers are "levers" that managers can manipulate to improve firm value creation in two ways: The first method involves using activity drivers to improve the efficiency and effectiveness of individual activities. The second method involves improving the fit at the level of the firm's activity set. Managers may identify potentially rewarding competitive positions and then use competitive data regarding rivals' activities and drivers to gauge how successful their firm may be in capturing these positions.

Originality/value – This is one of the first attempts to address the prescriptive shortcomings of the RBV using a Porterian activity lens.

Keywords Resources, Organizational performance, Management strategy

Paper type Conceptual paper

Introduction

Progress in the field of strategy is largely dependent on how well the field answers the question "Why do some firms outperform others?" (Rumelt *et al.*, 1994), as well as

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corollary questions, such as, “How do firms get in a position where they can outperform others?”, “How can they maintain this position?” etc. The resource-based view (RBV) offers critical and fundamental insights into why firms with valuable, rare, inimitable, and well organized resources may enjoy superior performance (Barney, 1995). Its current prominence is reflected not only by its dominance in the academic journals, by its inclusion in leading strategic texts[1] which warrants the conclusion that it is widely taught to students and practitioners in undergraduate, masters’ and executive programs.

However, while the RBV is an excellent tool for (positively) describing why some firms outperform others, it offers limited (normative) guidance to managers, a critique recently and forcefully launched by Priem and Butler (2001). RBV analysis is phrased in very general terms and is in principle applicable to any resource anywhere in the firm. This wide generality is at the same time a strength and a weakness, the former because of the broad applicability of RBV analysis, the latter because the generality of the RBV also means a corresponding lack of specificity. Others have made similar claims and have suggested various valuable ways of taking the RBV in a more managerial direction. However, one important critique – namely that it is not sufficient clear in the RBV how resources contribute to firm-level value creation and that operationalization is therefore difficult (Priem and Butler, 2001) – has not in our view been satisfactorily answered.

Recently, Ray *et al.* (2004, p. 35) acknowledged the role activities play in creating competitive advantage:

Activities, routines, and business processes are the mechanisms through which resources and capabilities get exposed to market processes where their ultimate value and ability to generate competitive advantage are realized.

However, this paper goes beyond suggesting that resources be placed in activities to understand how firms sustain and create advantage (e.g., Duncan *et al.*, 1998; Haanes and Fjeldstad, 2000; Porter, 1991; Ray *et al.*, 2004; Stalk *et al.*, 1992) to also include the concept of activity drivers. Adding activity drivers to the conversation makes two contributions: first, this paper extends Hoopes *et al.*'s (2003) argument that resource heterogeneity does not explain all firm level differences in performance by explicitly outlining the role of drivers. Second, we outline how activity drivers may be used by managers to improve their performance.

The normative dimension of the RBV

In one of the first statements of the RBV, Wernerfelt (1984, p. 12) argued that resources should be seen as “anything which could be thought of as a strength or weakness of a given firm.” While agreeing with this, Barney (1991) shifted the focus to the characteristics of strategic resources, that is, those resources that are potential sources of sustained competitive advantage. However, these are formal criteria that in principle any resource might meet, depending on circumstances, and some critics (e.g., Miller and Shamsie, 1996) have therefore argued that RBV reasoning is “amorphous” in the sense that there is no explicit instruction concerning the respective contributions to sustained competitive advantage of different kinds of resources. In practice, however, research has tended to focus on single (stand-alone) intangible resources (Galbreath, 2004).

The chief reason why it is difficult to apply the RBV in a prescriptive manner lies in the equilibrium orientation of the perspective. Economic equilibrium is an extremely useful device, because it lends discipline to analysis by allowing some and not other outcomes. However, it can also be constraining if used in a too heavy-handed manner. At a basic level, the RBV position that there can be “no rules for riches” (because such rules would be self-defeating) is an application of equilibrium thinking, that is, the notion that profit opportunities of any kind will be quickly discovered and exploited.

Less obviously, equilibrium thinking of this kind lies behind the propositions that: most strategically relevant resources are either not available in the market, or, if they are, are highly likely to be priced so that no potential rent is left (Dierickx and Cool, 1989) (for a strong critique of this line of reasoning, see Denrell *et al.*, 2003); and it may prove difficult to grow or copy strategic resources due to time compression economies and causal ambiguity (Barney, 1991; Dierickx and Cool, 1989). Finally, the equilibrium orientation of the RBV is manifest in the fact that it provides little insight into the “process black box” (Foss, 1996; Priem and Butler, 2001). The RBV is primarily an identification of the characteristics that resources must have to yield rents in equilibrium. This partially excludes concern with processes of building strategic resources through innovation and similar creative acts, or renewing such resources (see Matthews, 2006). Moreover, the neglect of the process black box also means that it becomes less transparent how resources contribute to value creation. How should resources be combined, in which proportions, amounts, sequences, etc. to yield value? These are highly important implementation issues that are currently outside the purview of the RBV.

In a recent critique of the RBV, Priem and Butler (2001, p. 31) focus on the issue of value creation. They note the RBV’s rise in the field of strategy, and then proceed to play devil’s advocate by posing the question, “Is the RBV suitable for strategy research?”. Their key critique (Priem and Butler, 2001, p. 64) of the RBV is that while it provides a theory of sustainability, it is not a theory of value creation, which, if true, they rightfully argue limits its usefulness as a strategic tool.

Barney (2001, p. 50) partially agrees with Priem and Butler’s (2001) critique. However, he does outline normative implications for managers (Barney, 2001; Barney and Arikan, 2001): First, he notes the RBV can be used to identify if the firm possesses any strategic resources which can be used to base the firm’s strategy on. If managers can identify these resources it allows them to nurture these resources. Second, managers in underperforming firms can use the RBV to identify resources that are lacking, and then examine if they can substitute or imitate these resources. Barney’s (2001) advice to managers is certainly helpful, yet does not fully address Priem and Butler’s (2001) critique. In particular, it does not open up the black box of understanding how resources contribute to value creation. We submit that this where the Porterian activity-based view may usefully complement the RBV.

The activity-based view

In 1980, Porter introduced the five forces framework and two generic strategies, low cost and differentiation. This is widely considered the Porter framework, which is evidenced by the fact it is the most cited work in the *Strategic Management Journal* in the period 1980-2000 (Ramos-Rodriguez and Ruiz-Navarro, 2004). However, Porter (1985) acknowledges a weakness with his 1980 work: while his 1980 work proposes

that the generic strategies are key to gaining competitive advantage, he does not outline how firms may achieve superior positions. Porter's (1985) desire to rectify this leads him to develop the "other" Porter framework, the activity-based view, which adopts activities as the unit of analysis at the firm level. The activity-based view follows a logic that argues that firms are not paid for products *per se*, but rather they are reimbursed for the activities they perform to provide products consumers. The activity-based view also becomes an influential work in the field of strategy; although less prolific than Porter's five forces, Porter's 1985 work is the second most cited work in the *Strategic Management Journal* in the period 1987-2000 (Ramos-Rodriguez and Ruiz-Navarro, 2004).

Porter (1980, 1985) argues there are just two generic strategies that lead to superior performance. The first is to produce at lower cost than competitors, while maintaining average quality and prices. The second is to induce customers to pay an above-average price without incurring costs that are larger than the price differential earned. But how do firms achieve superior positions based on being a cost leader or earning price premiums? The answer, Porter (1985, 1991) suggests, is at the activity level. Porter (1985) argues that we cannot understand a firm's competitive potential by looking at a firm as a whole; rather a firm's competitive position is determined by the activities it performs. The sum of the cost and value generated by each firm activity determines a firm's relative cost and differentiation position relative to its rivals.

To assist managers in understanding, improving, and implementing a low cost or differentiation strategy, Porter (1985) developed the value chain framework. The value chain is a generic activity template that is used to decompose the firm into the individual activities it undertakes to create value for the customer. A first level activity analysis involves comparing the activity breakdown to the firms' rivals. Do the activities performed by rivals generate more value or incur less cost? Are they performing the similar activities more efficiently or are they performing activities differently? Porter (1991) then prods us further asking why firms' activities generate lower cost or higher differentiation? He proposes that the answer to why some firms have lower cost or higher value delivered is due to activity drivers.

While an activity level analysis will uncover some strategic insights, a second level analysis at the level of drivers is required to get a fuller picture of a firms' competitive position (Porter, 1985). In Pearce and Robinson (2005)36, p. 104 words, "[d]rivers constitute the underlying source of competitive advantage, and make competitive advantage operational." The link between activity drivers and firm performance is through positioning. Activity drivers are generic, structural factors that are more or less under management control, which impact the cost incurred or value delivered by an activity (Porter, 1985); they explain why a firm's activity set generates more cost or value than its rivals.

We extend Porter's definition of drivers by clarifying the meaning of the term structural. We propose that activity drivers are structural in the sense that they represent abstract, relative or relational properties of activities, both in the context of the firm and in the context of the business value system the firm operates in.

Consider scale and location, two potential drivers of cost or differentiation. The scale of an activity is implicitly defined relative to one or more of the following: The technology used to perform the activity (that is embodied in the way the activity is performed), the scale of other activities within the firm, the scale of the activity in

competing firms, or the scale of the market for the product that the activity is involved in producing. Similarly, location is implicitly defined relative to one or more of the following: the source of inputs, the location of other activities in the firm, the market for products, and the location of competing firms.

Drivers are also structural in the sense that they are abstract properties of activities. They need to be instantiated in firm-specific terms to be applied. Consider again scale and location. Scale is a driver of petroleum firms' oil production activities, while the peak production rate of Norway's Statfjord offshore oilfield (550,000 barrels of oil per day) is a concrete manifestation of the scale of an activity in a specific firm at a specific point in time. Similarly, location is a driver for a petroleum firms' refining activities, while the location of a specific oil refinery in Norway is a concrete manifestation of location for a specific firm.

Following his logic of two generic strategies, Porter (1985) proposes two types of drivers: Cost and differentiation. Cost drivers reduce activity cost by decreasing the cost of the inputs or reducing the amount of input required to produce the same output. For example, scale is a cost driver of a firm's manufacturing activities if cost per unit fall as activity levels increase. Differentiation drivers influence the customer's willingness to pay by increasing the value of the product itself, the value of the ancillary services that accompany the product, or the product's image. A firm may also increase the buyer's willingness to pay by reducing pre- and post-purchase costs. For example, location is a differentiation driver of marketing activities if the firm's location induces consumers to pay a premium due to convenience. Successfully increasing the buyer's willingness to pay involves knowing who the buyer is, how the product/service is employed, and what characteristics the buyer emphasizes (Porter, 1985). Cost and differentiation drivers have strong descriptive power to explain the total cost and value generated by a firm. Managers with a general knowledge of their competitors' activity sets can use this information to analyze their position relative to its competitors (Ghemawat, 2006; Porter, 1985, 1991).

Activities and activity drivers add prescriptiveness

Activity drivers have strong descriptive power, but can they be used to increase value creation proactively? While it is not a straightforward process, the activity-based view does provide guidance as to how activities and drivers can be configured to achieve profitable positions. Activity drivers are "levers" that managers can manipulate to improve firm value creation in two ways: The first method involves using drivers to improve the efficiency and effectiveness of individual activities. For example, managers can improve their manufacturing costs by asking the following questions:

- *Scale*. Should we increase or reduce the size of our manufacturing activities?
- *Accumulated learning*. How can we leverage our knowledge-base and/or protect others from profiting from it?
- *Pattern of capacity utilization*. Can we increase the utilization of manufacturing assets or reduce fixed costs?
- *Linkages*. Can we improve coordination between related activities?
- *Interrelationships*. Can we increase the level of coordination between the strategic business units?
- *Integration*. Should we be outsourcing more or less?

- *Location*. Should we re-locate our manufacturing activities?
- *Policy choices*. If our manufacturing process is too complex can we lower costs by simplifying operations?

The second method involves improving the fit at the level of the firm's activity set (Porter, 1985, Ghemawat, 2006). Managers can identify potentially rewarding competitive positions and then use competitive data regarding rival's activities/drivers to gauge how successful their firm may be in capturing these (Porter, 1991; Ghemawat, 2006). Fortunately, the process of formulating and implementing firm strategy using the activity-based view is more complex than merely picking attractive positions and then manipulating the relevant drivers to achieve the desired position. Managers face two significant challenges when attempting to manipulate drivers: They must balance multiple drivers across multiple activities and they must operationalize the concept in the specific context of a firm.

Drivers may counter-act each other within the same activity and/or may have different impacts across different activities (Porter, 1985). Therefore the benefit of an individual driver on an activity needs to be balanced with other drivers affecting that activity, between other firm activities, and relative to competitor activities. For example, the scale of manufacturing operations needs to be balanced with the other drivers of manufacturing operations (i.e. capacity utilization, policy choices, etc.), drivers of other activities (i.e. a larger manufacturing scale may adversely affect location as a driver of transportation costs), and relative to competitors (i.e. if all firms build large-scale plants then it is a potential no-win situation).

Operationalization is a challenge for managers as drivers are defined relatively abstractly in order to make them generic and potentially applicable to all firms and industries. Part of the process of creating value is precisely choosing a position relative to the set of drivers that are critical in the firm's industry. For example, it is not obvious at which level of the activity the driver applies to. Is it the scale of the smelter, the scale of the entire manufacturing process, or otherwise? Another point is which drivers are important will vary from industry to industry (and potentially over the life cycle of the industry). For example, the operationalization and role of scale varies with the industry. Scale in the automobile industry may be the number of cars produced per year. In the airline industry it may be the number of destinations or passenger miles flown per year.

A further operationalization challenge for managers is that while drivers define the space of positioning alternatives, firms do not occupy all positions relative to an activity. Establishing the potential of unexplored positions is both difficult and uncertain, particularly when one also includes the potential responses of competitors. A related challenge is the fact firms do not have complete control over each of its activity drivers. The combined implication is that a position is not something that is directly and instantly captured, but rather it is something that the firm may evolve towards. The complex architecting of activities required to achieve a superior competitive position is challenging and therefore also potentially valuable as success may be difficult to understand and imitate. Given their importance in achieving competitive advantage, Rumelt *et al.* (1994, p. 421) write that:

... [u]nderstanding drivers, which can range widely from environmental features to organizational ones, is of great importance to the manager.

Are the RBV and activity-based view compatible?

The objectives and underlying assumptions of the RBV and the activity-based view are compatible. The activity-based and RBVs share a goal of identifying and exploiting factors that lead to superior competitive positions. The activity-based view is best applied to improving a firm's existing configuration of activities, as in the spirit of Porter (1985), while the RBV is best applied for the kind of assessment of a firm's existing resource portfolio discussed by Barney (2001) or when exploiting the firm's stock of resources to move into new product markets, as in the tradition of Penrose (1959) (e.g., Peteraf, 1993; Barney, 2001). The assumptions underlying each view are also similar. The RBV is based on the Chicago industrial organization perspective (Conner, 1991). And while Porter's (1980) five forces is firmly rooted in the I/O perspective, Porter's (1985) activity-based view is closer to the Chicago perspective as the rents earned are not due to exercising market power, but rather being more efficient than rivals (Foss, 1996). Further as Peteraf and Barney (2003) outline, both Porter and RBVs have similar definitions of competitive advantage and economic value. This level of compatibility is not surprising given that they offer complementary ways to explain firm level value creation.

While they share a common objective of gaining and sustaining superior positions, the manner by which they are seen to "acquire" these is different. With the RBV it is the possession or control of strategic resources which allows firms to gain profitable positions. With the activity-based view, firms gain profitable positions by configuring their activities using drivers. However, activity drivers are not unique to the firm. They are generic, structural factors which are available to all firms in the industry in the sense that they are conceptualized as structural and relative properties of a firm's activity set. Firms may "own" their positions, but only to the extent it is difficult for rivals to copy their activity/driver configurations.

Have activities been implicitly subsumed by the RBV?

Asking the question "Have drivers and activities been incorporated into the RBV?" is a fair question as combining stocks and flows of resources to study a firm's internal situation has a long history. For example, Penrose (1959, p. 25) described the role of resources and the services derived from them and Rumelt (1984, p. 561) discussed the role of "resources and resource conversion activities". Later, several authors join the discussion: Porter (1991) argues that resources and activities are duals of each other; McKelvey (1999, p. 296) lumps together Porter's activities with resources, dynamic capabilities, and competencies; Ghemawat (2006) places resources and activities together to form integrative models of competitive advantage; Helfat and Raubitschek (2000, p. 975) discusses the key role which activities play in achieving competitive advantage; and Farjoun (2002, p. 574) labels activities as "work flow technology" and places them under the heading of resources. Given this, we need to discuss if activities and drivers have been implicitly adopted by the RBV.

Indeed, one often finds mention of Porter's activities in the RBV literature (somewhat in contrast with the widespread view of the RBV and the Porter view(s) as representing opposed positions). For example, Barney (1991, 2002), Grant (2005), and Duncan *et al.* (1998) recommend using the value chain as a tool to isolate those resources which may provide a competitive advantage, while Rumelt (1995, fn101) even argue that "[e]arly contributors to the RBV include Porter (1985), who made the

'activity' the central element of this revised view." But nowhere in our search of the literature did we find any reference to where the RBV had been explicitly extended to include Porter's (1985) conception of activity drivers.

Although the concepts of activities and drivers are not explicitly included, they may be implicitly included in the RBV literature. For example, the "O" in Barney's (2002) VRIO framework implies that resources must be organized, although he does not discuss placing them in activities. What makes it more challenging is that there are terminological issues within the RBV that make it difficult to see if activities or drivers, in the Porterian (Porter, 1985) sense, are taken into account[2]. To be sure, we will first review if activities are the same as capabilities, and then if drivers are the same as resources.

There is an overlap between activities and capabilities. Capabilities imply action, however, there is a subtle, yet key difference between the two. Activities are what firms actually do; they are actions the firm performs to create value (Porter, 1985). The RBV defines capabilities as the ability to execute (in a latent sense) (e.g., Amit and Schoemaker, 1993; Stalk *et al.*, 1992), rather than the actual act of execution. While they are similar, there is a distinction between possessing the ability to do something and actually doing it, which Ray *et al.* (2004) acknowledge. Moreover, capabilities are typically (if not necessarily) broader in scope than activities; for example, firms may have "integrative" or "combinative capability," that is, an overall, typically corporate-level, ability to integrate activities or bodies of knowledge (Kogut and Zander, 1992). Thus, capabilities may underlie activities (as in Richardson, 1972), but they are not the same thing.

Are all activity drivers resources?

Activity drivers and resources share many similarities: Both resources and drivers impact a firm's cost/differentiation position, and both need managerial involvement in the sense that drivers must be made controllable, while resources must be organized. Given this similarity we should find examples of where a firm level factor may be a driver and a resource. For example, accumulated learning is a driver, which captures the increase in the firm's stock of knowledge, which is a resource. Similarly, scale is seen as a driver by Porter (1985) and a resource by Barney (2002). Location can be seen as a driver or resource, while linkages and inter-relationships can be seen as elements of firm's social capital or as drivers of activities.

Barney and others argue that anything that improves a firm's competitive position may be a resource (e.g., Barney and Arikan, 2001). We argue that while this definition makes the RBV of sustainability extremely robust, it hampers its ability to provide prescriptive guidance. While some drivers are resources, not all drivers are resources, unless we expand the definition of resources beyond the point where its usefulness may be questioned (e.g., Porter, 1991; Priem and Butler, 2001). There are two key differences between resources and drivers: First, resources are owned by the firm, while firms do not own drivers, as drivers are generic, structural properties of activities which are potentially open to all firms in an industry to take advantage of. Second, drivers influence the cost and differentiation of each activity or sets of activities, while resources typically relate to the business unit or corporation (Peteraf and Barney, 2003). In addition, there are some drivers which are difficult to conceive as resources. For example, high capacity utilizations (and its corollary low fixed costs) are not

resources *per se*. The integration driver relates to “make or buy” decisions, which are not resources, but alternative ways of accessing the services of resources. Policy choices imply managerial choices rather than something firms possess. Timing is a driver, but not a resource as it relates to when the assets were purchased. And lastly, institutional factors are external to the firm and are not resources. While the line between activities and capabilities is thin (and potentially shifting over time), the difference between resources and drivers is tangible. We argue that if we desire the prescriptive benefit offered by activity drivers, we must explicitly integrate them into the RBV, rather than let them to continue to be encompassed under the broad heading of resources.

Potential benefits of integration

There are three key advantages of integrating the two views:

- (1) It addresses the prescriptive critique of the RBV (Priem and Butler, 2001). Including an activity-based decomposition of the firm as part of the analysis helps us understand the process by which resources contribute to firm value creation (Porter and Rivkin, 1998). Activities and activity drivers are the link between resources and performance (e.g., Porter, 1991).
- (2) It ameliorates many of the individual weaknesses of the two views. The activity-based view is weak in its assumptions about factor markets, which would be addressed by the RBV. The RBV, on the other hand, has been criticized for being static and introspective, which would be handled by inclusion of the concepts of activities and their drivers from the activity-based view. As well, RBV is criticized for not having a mechanism to endogenously create new resources and to analyze how changes in environment affect the value of resources. Adding activities to the picture relieves this, as well as the criticism that the resource-base view is too focused on individual resources, instead of bundles (e.g., Teng and Cummings, 2002).
- (3) Lastly, the activity-based view tackles implementation issues that are unresolved when using the RBV (Barney and Arikan, 2001). With the activity-based view strategies are formulated at the activity level and are generally easily translated into detailed implementation plans; activity-based strategic plans already outline who will do what, and when (Porter, 1998).

The combined framework does not address all potential weaknesses. The main downside of incorporating the activity-based view is the level of detail and effort required to complete an activity-based analysis: Activity level data is typically not available in traditional accounting systems (Hergert and Morris, 1989; Porter, 1985).

Conclusion

The resource-based logic has been gainfully applied in many fields other than strategy (see Barney and Arikan, 2001 for a survey of resource-based research). However, because it lacks the concept of activities, we argue it has not reached its full potential in the field of strategy. Barney and colleagues (Ray *et al.*, 2004, p. 35) appear to partially recognize this. As they argue:

[I]ndeed, the research reported here not only recognizes this common ground, but suggests that understanding the relationship between a firm's resources and the effectiveness of its activities, routines, or business processes is particularly fruitful ground for analyzing the empirical implications of resource-based theory.

While Barney and colleagues recognize the potential benefit of including activities when conducting empirical research, this paper goes one step further by arguing that by formally including the concepts of activities and activity drivers the RBV can significantly overcome its current lack of managerial guidance.

Notes

1. Examples include Barney and Hesterly (2006), Dess *et al.* (2005), Ghemawat (2006), Grant (2005), Hitt *et al.* (2005), Pearce and Robinson (2005), Marcus (2005), Thompson *et al.* (2006), and Wheelen and Hunger (2004).
2. As an example of terminology issues which surround the RBV, Duncan *et al.* (1998, p. 10) quote from a research paper by Collis stating "there are as many definitions of organizational capabilities as there are authors on the subject." See also Barney and Arikan's (2001, pp. 139-40) discussion of the multitude of perspectives which purport to be different, yet share the same theoretical umbrella as the RBV.

References

- Amit, R. and Schoemaker, P.J.H.S. (1993), "Strategic assets and organizational rent", *Strategic Management Journal*, Vol. 14 No. 1, pp. 33-46.
- Barney, J.B. (1991), "Firm resources and sustained competitive advantage", *Journal of Management*, Vol. 17 No. 1, pp. 99-120.
- Barney, J.B. (1995), "Looking inside for competitive advantage", *Academy of Management Executive*, Vol. 9 No. 4, pp. 49-65.
- Barney, J.B. (2001), "Is the resource-based 'view' a useful perspective for strategic management research? Yes", *The Academy of Management Review*, Vol. 26 No. 1, pp. 41-56.
- Barney, J.B. (2002), *Gaining and Sustaining Competitive Advantage*, 2nd ed., Prentice-Hall, Upper Saddle River, NJ.
- Barney, J.B. and Arikan, A.M. (2001), "The resource-based view: origins and implications", in Hitt, M.A., Freeman, R.E. and Harrison, J.S. (Eds), *The Blackwell Handbook of Strategic Management*, Blackwell, Oxford.
- Barney, J.B. and Hesterly, W.S. (2006), *Strategic Management and Competitive Advantage*, Pearson Prentice-Hall, Upper Saddle River, NJ.
- Conner, K. (1991), "A historical comparison of resource-based theory and five schools of thought within industrial organization economics: do we have a new theory of the firm?", *Journal of Management*, Vol. 17 No. 1, pp. 121-54.
- Denrell, J., Fang, C. and Winter, S.G. (2003), "The economic of strategic opportunity", *Strategic Management Journal*, Vol. 24 No. 10, pp. 977-90.
- Dess, G.G., Lumpkin, G.T. and Taylor, M.L. (2005), *Strategic Management: Text and Cases*, McGraw-Hill Irwin, Boston, MA.
- Dierickx, I. and Cool, K. (1989), "Asset stock accumulation and sustainability of competitive advantage", *Management Science*, Vol. 35 No. 12, pp. 1504-11.
- Duncan, W.J., Ginter, P.M. and Swayne, L.E. (1998), "Competitive advantage and internal organization assessment", *The Academy of Management Executive*, Vol. 12 No. 3, pp. 6-16.

- Farjoun, M. (2002), "Towards an organic perspective on strategy", *Strategic Management Journal*, Vol. 23 No. 7, pp. 561-94.
- Foss, N.J. (1996), "Research in strategy, economics, and Michael Porter", *Journal of Management Studies*, Vol. 33 No. 1, pp. 1-24.
- Galbreath, J.T. (2004), "Determinants of firm success: a resource-based analysis", PhD thesis, Curtin University of Technology, Sydney.
- Ghemawat, P. (2006), *Strategy and the Business Landscape*, 2nd ed., Pearson Prentice-Hall, Upper Saddle River, NJ.
- Grant, R.M. (2005), *Contemporary Strategy Analysis*, 5th ed., Blackwell, Oxford.
- Haanes, K. and Fjeldstad, Ø.D. (2000), "Linking intangible resources and competition", *European Management Journal*, Vol. 18 No. 1, pp. 52-62.
- Helfat, C.R. and Raubitschek, R. (2000), "Product sequencing: co-evolution of knowledge, capabilities, and products", *Strategic Management Journal*, Vol. 21 Nos 10/11, pp. 961-79.
- Hergert, M. and Morris, D. (1989), "Accounting data for value chain analysis", *Strategic Management Journal*, Vol. 10 No. 2, pp. 175-88.
- Hitt, M.A., Ireland, R.D. and Hoskisson, R.E. (2005), *Strategic Management*, 6th ed., Thomson South-Western, Mason, OH.
- Hoopes, D.G., Madsen, T.L. and Walker, G. (2003), "Guest editors' introduction to the special issue: why is there a resource-based view? Toward a theory of competitive heterogeneity", *Strategic Management Journal*, Vol. 24 No. 10, pp. 889-902.
- Kogut, B. and Zander, U. (1992), "Knowledge of the firm, combinative capabilities, and the replication of technology", *Organization Science*, Vol. 3 No. 3, pp. 383-97.
- McKelvey, B. (1999), "Avoiding complexity catastrophe in coevolutionary pockets: strategies for rugged landscapes", *Organization Science*, Vol. 10 No. 3, pp. 294-321.
- Marcus, A.A. (2005), *Management Strategy: Achieving Sustained Competitive Advantage*, McGraw-Hill Irwin, Boston, MA.
- Matthews, J. (2006), *Strategizing, Disequilibrium, and Profit*, Stanford University Press, Stanford, CA.
- Miller, D. and Shamsie, J. (1996), "The resource-based view of the firm in two environments: the Hollywood film studios from 1936 to 1965", *Academy of Management Journal*, Vol. 39 No. 3, pp. 519-43.
- Pearce, J.A. and Robinson, R.B. (2005), *Formulation, Implementation, and Control of Competitive Strategy*, 9th ed., McGraw-Hill Irwin, Boston, MA.
- Penrose, E.T. (1959), *The Theory of the Growth of the Firm*, Basil Blackwell, London.
- Peteraf, M.A. (1993), "The cornerstones of competitive advantage: a resource-based view", *Strategic Management Journal*, Vol. 14 No. 3, pp. 179-91.
- Peteraf, M.A. and Barney, J.B. (2003), "Unravelling the resource-based tangle", *Managerial and Decision Economics*, Vol. 24 No. 4, pp. 309-23.
- Porter, M.E. (1980), *Competitive Strategy*, Free Press, New York, NY.
- Porter, M.E. (1985), *Competitive Advantage*, Free Press, New York, NY.
- Porter, M.E. (1991), "Towards a dynamic theory of strategy", *Strategic Management Journal*, Vol. 12 No. 6, pp. 95-117.
- Porter, M.E. (1998), *Competitive Advantage*, 2nd ed., Free Press, New York, NY.
- Porter, M.E. and Rivkin, J.W. (1998), "Activity systems as barriers to imitation", working paper 98-066, Harvard Business School, Boston, MA.

- Priem, R.L. and Butler, J.E. (2001), "Is the resource-based 'view' a useful perspective for strategic management research?", *The Academy of Management Review*, Vol. 26 No. 1, pp. 22-40.
- Ramos-Rodriguez, A.-R. and Ruiz-Navarro, J. (2004), "Changes in the intellectual structure of strategic management research: a bibliometric study of the *Strategic Management Journal*, 1980-2000", *Strategic Management Journal*, Vol. 25 No. 10, pp. 981-1004.
- Ray, G., Barney, J.B. and Muhanna, W.A. (2004), "Capabilities, business processes, and competitive advantage: choosing the dependent variable in empirical tests of the resource-based view", *Strategic Management Journal*, Vol. 25 No. 1, pp. 23-38.
- Richardson, G.B. (1972), "The organisation of industry", *Economic Journal*, Vol. 82 No. 327, pp. 883-96.
- Rumelt, R.P. (1984), "Towards a strategic theory of the firm", in Lamb, R.B. (Ed.), *Competitive Strategic Management*, Prentice-Hall, Englewood Cliffs, NJ, pp. 556-70.
- Rumelt, R.P. (1995), "Inertia and transformation", in Montgomery, C.A. (Ed.), *Resource-based and Evolutionary Theories of the Firm: Towards a Synthesis*, Kluwer Academic, Boston, MA, pp. 110-30.
- Rumelt, R.P., Schendel, D.E. and Teece, D.J. (1994), *Fundamental Issues in Strategy: A Research Agenda*, Harvard Business School Press, Boston, MA.
- Stalk, G., Evans, P. and Shulman, L.E. (1992), "Competing on capabilities: the new rules of corporate strategy", *Harvard Business Review*, Vol. 70 No. 2, pp. 57-69.
- Teng, B.S. and Cummings, J.L. (2002), "Trade-offs in managing resources and capabilities", *Academy of Management Executive*, Vol. 16 No. 2, pp. 81-91.
- Thompson, A.A., Gamble, J.E. and Strickland, A.J. (2006), *Strategy: Winning in the Marketplace*, 2nd ed., McGraw-Hill Irwin, Boston, MA.
- Wernerfelt, B. (1984), "A resource-based view of the firm", *Strategic Management Journal*, Vol. 5, pp. 171-80.
- Wheelen, T.L. and Hunger, J.D. (2004), *Strategic Management and Business Policy*, 9th ed., Pearson Prentice-Hall, Upper Saddle River, NJ.

Further reading

- Barney, J.B. (1986), "Strategic factor markets: expectations, luck and business strategy", *Management Science*, Vol. 32 No. 10, pp. 1512-34.
- Foss, N.J. (1998), "The resource-based perspective: an assessment and diagnosis of problems", *Scandinavian Journal of Management*, Vol. 14 No. 3, pp. 133-49.

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