



Pergamon

Journal of Management 27 (2001) 651–660

---

---

**JOURNAL OF  
MANAGEMENT**

---

---

## A resource-based theory of sustainable rents

Joseph T. Mahoney\*

*University of Illinois at Urbana-Champaign, College of Commerce and Business Administration, Department of Business Administration, 339 Wohlers Hall 1206 South Sixth Street, Champaign, IL 61820, U.S.A.*

Received 1 February 2001; received in revised form 20 August 2001; accepted 20 September 2001

---

### Abstract

This paper summarizes and comments on Conner (1991) that contributes to the strategic management area by providing an historical comparison of resource-based theory and five schools of thought within industrial organization economics. Conner (1991) argues that the fundamental distinction between resource-based theory and transaction costs theory is that resource-based theory focuses on the deployment and combination of specific inputs while transaction costs theory focuses on the avoidance of opportunism. I offer three responses to this claim. First, Conner's distinction was not central to the resource-based literature at the time the article was published. Second, I raise concerns about building a resource-based theory of the firm that assumes away the problems of opportunistic behavior. Third, I offer an alternative view of the fundamental similarities and differences between resource-based theory and transaction costs theory. © 2001 Elsevier Science Inc. All rights reserved.

---

### 1. Introduction

Conner (1991) reaches for an overarching paradigm in strategy research and is a work of careful scholarship that is worthy of continued analysis. After summarizing some key arguments of Conner (1991) that contributed to strategic management by providing an historical comparison of resource-based theory<sup>1</sup> and five schools of thought within industrial organization economics, I focus on her discussion of the relationship between resource-based theory and transaction costs theory. In particular, Conner (1991) argues that the fundamental distinction between resource-based theory and transaction costs theory is that resource-based

---

\* Corresponding author. Tel.: +1-217-244-8257; fax: +1-217-244-7969.

E-mail address: josephm@uiuc.edu (J.T. Mahoney).

theory focuses on the deployment and combination of specific inputs while transaction costs theory focuses on the avoidance of opportunism. I offer three responses to this claim:

1. Conner's (1991) distinction was not central to the resource-based literature at the time the article was published.
2. Concerns are raised about building a resource-based theory of the firm that assumes away the problems of opportunistic behavior.
3. An alternative view is offered of the fundamental similarities and differences between resource-based theory and transaction costs theory.

## **2. Summary of key arguments in Conner (1991)**

Conner notes that: "A resource-based approach to strategic management focuses on costly-to-copy attributes of the firm as sources of economic rents and, therefore, as the fundamental drivers of performance and competitive advantage" (1991, p. 121).<sup>2</sup> Conner (1991) makes clear that an historical review of strategy research suggests that a resource-based perspective long has been central to strategic management (Barnard, 1938; Selznick, 1957; Chandler, 1962; Rumelt, 1974). Conner (1991) joins the ranks of other strategy researchers who acknowledge the historical centrality of resource-based theory, such as Rumelt (1984, p. 557–558):

In essence, the [strategy] concept is that a firm's competitive position is defined by a bundle of unique resources and relationships and that the task of general management is to adjust and renew these resources and relationships as time, competition, and change erode their value. This way of looking at the firm . . . [is] useful in describing and summarizing the empirical studies of firm behavior that form the core of the business policy literature.

In addition to describing the resource-based perspective as long being central to strategic management, Conner (1991) documents well how resource-based theory is positioned relative to five schools of thought within industrial organization economics:

Neoclassical perfect competition (McNulty, 1968);  
 Bain-type industrial organization (Bain, 1954, 1968);  
 Schumpeterian competition (Schumpeter, 1950; Nelson & Winter, 1982);  
 Chicago School responses (Stigler, 1968; Demsetz, 1973); and  
 Transaction costs theory (Coase, 1937; Williamson, 1975).

Conner (1991) indicates that the distinctions between resource-based theory and neoclassical economics are that under resource-based theory critical resources may be immobile and the identification of resource combinations is not obvious, in contrast to the perfectly mobile factors of production and the uniformly understood production function of neoclassical theory. The distinctions between resource-based theory and Bain-type industrial organization are that the firm (not the industry) is the unit of analysis for understanding sources of above-normal returns, and the internal organization of the firm is regarded as a critical variable.

The key differences between resource-based theory and Schumpeterian competition (Schumpeter, 1934) are that the feasibility of new ways of competing does not rest on monopolistic (output-restraining) practices, and that imitators are constrained by costly-to-copy resources such as time compression diseconomies (Dierickx & Cool, 1989), causal ambiguity (Lippman & Rumelt, 1982), and legally imposed isolating mechanisms (Rumelt, 1984).<sup>3</sup>

Unlike the Chicago School, resource-based-theory focuses more on the intermediate, rather than the long term.<sup>4</sup> Thus, entry need not dissipate above-normal returns in the time-span relevant to the firm and its strategic choice problem. This real-time-based view of “quasi-rents” is not only central to Conner (1991) but it is also central to Dierickx and Cool (1989), Schoemaker (1990), Mahoney and Pandian (1992), Mosakowski (1993), and Teece, Pisano and Shuen (1997), among others.

The key distinction that Conner makes between resource-based theory and transaction costs theory is that the heart of the firm in resource-based theory centers on deployment and combination of specific resources rather than on the attenuation of opportunism (Conner, 1991, p. 133). Conner argues that: “the firm has advantage over a collection of market transactions in those situations where redeployment inside the firm is more efficient and, perhaps more important, qualitatively more productive because of the opportunity to benefit from asset interdependencies within the firm” (1991, p. 140). Conner asserts that “firms may develop, to varying degrees, a culture and organizational routines that [positively] affect behavior throughout the firm” (1991, p. 141). Conner concludes that: “The resource-based view thus implies a theory of the firm’s existence that turns on advantages (over the market contract) in intercomponent knowledge transplantation and in the creation-redeployment of specific assets. . . . *This theory of the firm does not depend on the presence of opportunism* (emphasis added)” (1991, p. 142).

### 3. Commentary on Conner (1991)

#### 3.1. *The assumption of opportunistic behavior*

There are three points that can be made concerning Conner’s (1991) claim that the key distinction between resource-based theory and transaction costs theory is the assumption of opportunistic behavior pertaining only to the latter theory.<sup>5</sup> First, the claim that resource-based theory assumes an absence of opportunism was not correct at the time the article was published. Seminal resource-based papers in strategic management<sup>6</sup> by Lippman and Rumelt (1982), Teece (1982), Rumelt (1984), Wernerfelt (1984), and Barney (1986, 1991) are either silent on the opportunism assumption or include the assumption of opportunism in their analysis. In support of the claim of assuming no opportunism in resource-based theory, Conner (1991, p. 142) indicates that Penrose (1959) did not assume opportunism in her classic book. This argument, however, is not persuasive in light of Penrose’s subsequent comments that her lack of explicit attention to opportunism and agency costs in *The Theory of the Growth of the Firm* (Penrose, 1959) was a shortcoming (see Kor & Mahoney, 2000).

While not having the backing of precedent, Conner (1991) may still argue that the

resource-based theory *should be* developed with the assumption of no opportunism (as in, e.g., Conner & Prahalad, 1996). Such an assumption may simplify matters greatly but it comes at an obvious loss of realism with uncertain gains in predictive power. “Solutions” offered under such an approach are poorly solved since the incentive problems under conditions of opportunism that are inherent in the problem of effective coordination have been assumed away.

An important motivation for why resource-based theorists in strategic management should continue to deal with the problem of opportunistic behavior is that: “the world should not be organized to the advantage of the opportunistic against those who are more inclined to keep their promises.” (Williamson, quoted in Swedberg, 1990, p. 126). To assume an absence of opportunism will miss much of the action (Williamson, 1999). Our understanding of economic organization would be needlessly impoverished as a consequence. Williamson (1999, p. 1099) states that: “To deny or suppress opportunism in the study of economic organization is tantamount to staging Hamlet without the Prince of Denmark—which, however, is not to say that such a play/theory of organization could not be staged. [Team theory (Marshak & Radner, 1972) is illustrative].”

Further, Conner (1991) claims that routines and culture would develop within the firm in ways superior to market contracts *in the absence of opportunism*. An alternative view that I propose is that routines and culture develop within the firm in ways superior to market contracts *precisely because opportunism exists*. In the absence of opportunism, recurrent market contracts could achieve the efficiency of internal organization within the firm. However, in the presence of opportunism, differences arise. Consider, for example, a common language or coding (Arrow, 1974). Williamson (1975, p. 25) writes that:

A further advantage of internal organization is that, as compared to recurrent market exchange, efficient codes are more apt to evolve and be employed with confidence by the parties. Such coding also economizes on bounded rationality. Complex events are summarized in an informal way by using what might be an idiosyncratic language. Although, in principle, the parties to recurrent market contracts could devise the same language, thereby realizing the same economies, such exchanges are more subject to risks of opportunism—hence, are less apt to be developed as fully.

An important advantage of the firm is that coding within the firm increases communication efficiencies and provides stability in operations. The standardization of language can be seen in accounting systems, blueprints and other reporting systems. In reply to Conner (1991), these economies could be obtained via recurrent contracting but the efficiencies of the coding may be impaired because of the risk of opportunism. Thus, the superior knowledge transplantation that takes place within the firm relative to market contracts to which Conner (1991) refers is arguably because of the superior coding that takes place within the firm *that is because of the superior attenuation of opportunism relative to recurrent contracting* (Arrow, 1974; Williamson, 1975; Foss, 1996).

Furthermore, the firm may more effectively achieve knowledge transplantation since preemptive claims on profits between separate firms are eliminated. The firm has better control of opportunistic behavior because of the authority relationship (Williamson, 1975) within the firm. Managers within the firm can be required to cooperate in an adaptive manner

and promotions can be adjusted to achieve such behavior. Also, disputes may be settled more effectively internally, rather than through litigation. The auditing powers of the firm are superior to the auditing capabilities of contracting parties. For example, a firm has the legal right to audit its divisions but no right to audit outside contractors. The integrated firm has superior information upon which they can base allocations to their divisions so that the incentive for those divisions to use their information to the detriment of the enterprise's profitability is mitigated. Equity and due process may develop within the firm. Selection, training and socialization may minimize the divergence of preferences of team members. In summary, when recurrent contracting by separate entities is replaced by the firm, the following changes occur: ownership changes, incentives change, and governance structures (e.g., the ability to monitor and reward) change (Williamson, 1985; Mahoney, 1992).

### 3.2. Similarities and differences

Finally, I offer an alternative view to Conner (1991) concerning the fundamental similarities and differences between resource-based theory and transaction costs theory. First, in terms of *similarities*, I share Conner's (1991, p. 133) view that "asset specificity and small numbers are critical concepts [to both theories]" (see also Argyris, 1996, Helfat, 1994). I would generalize Conner's (1991) statement to read: *Market frictions (with asset specificity and small numbers being prominent examples) are the critical concepts to both resource-based theory and transaction costs theory.*

Formally speaking, the so-called first fundamental welfare theorem of economics articulates a perfectly competitive equilibrium (i.e., zero rents) of price-taking, complete markets, no interdependence of consumer utilities, no interdependence in production, and perfect information. Resource-based theory and transaction costs theory depart from this highly stylized world. Economies of scale and asset specificity (sunk costs) violate the price-taking assumption; positive transaction costs result in less than complete markets; externalities and positive transaction costs violate the assumptions of zero interdependence in consumption and production, and asymmetric information violates the assumption of perfect information. (A detailed analysis of the implications of these real-world market frictions can be found in Yao, 1988.)

Second, in terms of *differences* between the two theories, I would argue that *resource-based theory is a theory of firm rents*, and *transaction costs theory is a theory of the existence of the firm*. Thus, resource-based theory and transaction costs theory are complementary. In fact, the two theories can be connected in the following way: resource-based theory seeks to delineate the set of market frictions<sup>7</sup> that would lead to firm growth and sustainable rents, while transaction costs theory seeks to delineate the set of market frictions that explain the existence of the firm. Further, I conjecture that the set of market frictions that explain sustainable firm-level rents would be sufficient market frictions to explain the existence of the firm.

The subset of market frictions that not only explain the existence of the firm but also the strategic (rent-sustaining) firm is *isolating mechanisms* (Mahoney & Pandian, 1992; Rumelt, 1984). Absent government imposed barriers, isolating mechanisms are the result of the rich connections between uniqueness (e.g., asset specificity) and causal ambiguity (Lippman &

Rumelt, 1982). **Isolating mechanisms that explain sustainable firm rents (in resource-based theory) are sufficient market frictions to explain the existence of the firm (in transaction costs theory).** In the context of team production, if market frictions exist for sustainable Ricardian rents<sup>8</sup> then these market frictions should be sufficient to explain the existence of the firm. If Descartes had been a firm he might have said: “I generate rents, therefore I exist.”

#### 4. Conclusions

Differences in views on the relationship between resource-based theory and transaction costs theory notwithstanding, I regard Conner (1991) as one of the best papers published in strategic management. It is a work of serious scholarship that is clearly dedicated to the values of education. The paper honors not only Kathleen Conner, but also the strategic management field and the *Journal of Management*.

My main disagreement with Conner (1991) is her argument that strategic management develop a resource-based theory of the firm that assumes no opportunistic behavior. This disagreement is not an esoteric point. As Herbert Simon has argued: “Nothing is more fundamental in setting our research agenda and informing our research methods than our view of the nature of the human beings whose behavior we are studying” (Simon, 1985, p. 303).

In the absence of government intervention, asset specificity (sunk cost commitment) is a necessary condition for isolating mechanisms that sustain rents (Rumelt, 1984; Williamson, 1979). Often the firm achieves sustainable competitive advantage (i.e., sustains rents) because it reduces opportunistic behavior and allows for firm-specific investments. *In the absence of opportunism the rent-generating firm need not exist.* In the absence of opportunism, contracting would be sufficient to support investments that are strategic commitments (i.e., sunk costs). Thus, for the reasons provided in this paper, I submit that the resource-based theory of the strategic (rent-generating and rent-sustaining) firm cannot assume away opportunism.

#### Notes

1. Similar to Conner (1991), **resource-based theory** includes the *resource-based view* (Rumelt, 1984; Wernerfelt, 1984), *capabilities and competence-based theory* (e.g., Henderson & Cockburn, 1994; Eisenhardt & Martin, 2000), *commitment and first-mover advantage* (Ghemawat, 1991; Lieberman & Montgomery, 1998), and *knowledge-based theory* (e.g., Madhok, 1996; Spender, 1996). In this paper, resource-based theory includes the continuing search for rents (Bowman, 1974) based on both competition and cooperation (see e.g., Singh & Mitchell, 1966; Lado, Boyd & Hanlon, 1997; Oliver, 1997; Combs & Ketchen, 1999).
2. Some have criticized the resource-based approach because some costly-to-copy attributes are unobservable. In reply, I concur with Godfrey and Hill (1995) that the

philosophy of *realism* states that we cannot reject theories just because they contain key constructs that are unobservable. It is not enough to state that the unobservability of utility dooms agency theory, that transaction costs theory is untestable because transaction costs cannot be measured, or that the resource-based theory is invalid because key resources may be unobservable. Unobservable constructs can be useful in making *predictions*.

3. Conner (1991) indicates the *similarities* between resource-based theory and Schumpeterian competition where spectacular above-normal returns can result from new ways of competing and where entrepreneurial vision is at the heart of the firm. Resource-based/dynamic capabilities articles that have followed in the Schumpeterian tradition include: Nelson (1991), Amit and Schoemaker (1993), Mosakowski (1993, 1998), Mahoney (1995), and Teece, Pisano and Shuen (1997), among others. For example, Nelson (1991) argues that the correct focus for strategic management is on firm-specific dynamic capabilities in a Schumpeterian (evolutionary) context. Firm-specific dynamic capabilities are the source of durable, not easily imitable, differences among firms.
4. Conner (1991) notes that a key *similarity* between resource-based theory and the Chicago School is that the size and scope of the firm reflect the extent to which production efficiencies are achieved. Peteraf (1993) elaborates on the close connections between resource-based theory and the Chicago School.
5. Opportunistic behavior (or opportunism) refers to self-interest seeking with guile (Williamson, 1985, p. 47). In the insurance literature, ex ante hidden information (e.g., adverse selection), and ex post hidden action (e.g., moral hazard) are primary examples of opportunistic behavior. In the transaction costs literature a primary example of opportunism is the hold-up problem and the potential appropriation of quasi-rents under conditions of asset specificity (Williamson, 1985, 1989). Castanias and Helfat (1991) evaluate the resource-based theory in the presence of opportunism within the context of agency theory.
6. Seminal papers in the *economics* literature that contribute to resource-based theory include: Demsetz (1973), Rubin (1973), and Slater (1980). In terms of connecting the resource-based strategic management literature with current work in economics, while industrial organization (IO) economics has turned its attention largely to game theory in the past two decades, strategic management has made significant headway in developing resource-based theory (see, e.g., the collection of resource-based works in Foss, 1997). Interestingly, Conner concludes her *Journal of Management* article stating that: “. . . resource-based theory may gain from the application of the new IO’s game-theoretic techniques” (Conner, 1991, p. 145).
7. Market frictions include indivisibilities (which are emphasized by Penrose, 1959 and Teece 1982), economies of scope and sunk costs (Baumol, Panzar & Willig, 1982), ill-defined property rights (Alchian, 1984; Liebeskind, 1996); asymmetric information (Chi, 1994); externalities and positive transaction costs (Coase, 1960; Dahlman, 1979; Williamson, 1991, 1996).
8. Ricardian rents may be captured by measuring Tobins’s q (see e.g., Anand & Singh,

1997; Montgomery & Wernerfelt, 1988). If in the long run, the firm generates rent (i.e., long-run Tobin's  $q > 1$ ) then the firm is creating value that justifies its existence.

## Acknowledgment

The author wishes to thank Yasemin Kor, James Mahoney, Gina McNally, Steve Michael, Mike Pettus, and two anonymous reviewers for comments on the paper. The usual disclaimer applies.

**Joseph T. Mahoney** received his Ph.D. in Business Economics from the Wharton School of Business of the University of Pennsylvania in 1989. Joe currently is Associate Professor of Business Administration at the University of Illinois at Urbana-Champaign. His research interest is *organizational economics* (including the behavioral theory of the firm, transaction costs theory, property rights theory, agency theory, resource-based theory, and an evolutionary/dynamic capabilities theory of the firm). He has published in *Journal of Management Inquiry*, *Journal of Management Studies*, *Managerial and Decision Economics*, and *Strategic Management Journal*, among others. Currently he is on the editorial board of *Strategic Management Journal* and he is the book review editor for the *Academy of Management Review*.

## References

- Alchian, A. A. (1984). Specificity, specialization, and coalitions. *Journal of Institutional and Theoretical Economics*, *140*, 34–49.
- Amit, R., & Schoemaker, P. J. (1993). Strategic assets and organizational rent. *Strategic Management Journal*, *14*, 33–46.
- Anand, J., & Singh, H. (1997). Asset redeployment, acquisitions and corporate strategy in declining industries. *Strategic Management Journal*, *18* (Summer), 99–118.
- Argyres, N. (1996). Evidence on the role of firm capabilities in vertical integration decisions. *Strategic Management Journal*, *17*, 129–150.
- Arrow, K. (1974). *The limits of organization*. New York: W.W. Norton & Company.
- Bain, J. S. (1954). Economies of scale, concentration, and the condition of entry in twenty manufacturing industries. *American Economic Review*, *44*, 15–39.
- Bain, J. S. (1968). *Industrial organization*. New York: John Wiley.
- Barnard, C. (1938). *The functions of the executive*. Cambridge, MA: Harvard University Press.
- Barney, J. B. (1986). Strategic factor markets: Expectations, luck, and business strategy. *Management Science*, *32*, 1231–1241.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17* (1), 99–120.
- Baumol, W. J., Panzar, J. C., & Willig, R. D. (1982). *Contestable markets and the theory of industry structure*. New York, NY: Harcourt Brace Jovanovich.
- Bowman, E. H. (1974). Epistemology, corporate strategy, and academe. *Sloan Management Review*, *15*, 35–50.
- Castanias, R. P., & Helfat, C. (1991). Managerial resources and rents. *Journal of Management*, *17* (1), 155–171.
- Chandler, A. D. (1962). *Strategy and structure: Chapters in the history of the industrial enterprise*. Cambridge, MA: The MIT Press.

- Chi, T. (1994). Trading in strategic resources: Necessary conditions, transaction cost problems, and choice of exchange structure. *Strategic Management Journal*, 15 (4), 271–290.
- Coase, R. H. (1937). The nature of the firm. *Economica*, 4, 386–405.
- Coase, R. H. (1960). The problem of social cost. *Journal of Law and Economics*, 3, 1–44.
- Combs, J. G., & Ketchen, D. J. (1999). Explaining interfirm cooperation and performance: Toward a reconciliation of predictions from the resource-based view and organizational economics. *Strategic Management Journal*, 20, 867–888.
- Conner, K. R. (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*, 17 (1), 121–154.
- Conner, K. R., & Prahalad, C. K. (1996). A resource-based theory of the firm: Knowledge versus opportunism. *Organization Science*, 7 (5), 477–501.
- Dahlman, C. J. (1979). The problem of externality. *Journal of Law and Economics*, 22, 141–162.
- Demsetz, H. (1973). Industry structure, market rivalry, and public policy. *Journal of Law and Economics*, 16, 1–9.
- Dierickx, I., & Cool, K. (1989). Asset stock accumulation and sustainability of competitive advantage. *Management Science*, 35, 1504–1511.
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21, 1105–1121.
- Foss, N. (1996). Knowledge-based approaches to the theory of the firm: Some critical comments. *Organization Science*, 7 (5), 470–476.
- Foss, N. (1997). (1997). *Resources, firms, and strategies: A reader in the resource-based perspective*. Oxford, UK: Oxford University Press.
- Ghemawat, P. (1991). *Commitment: The dynamic of strategy*. New York: Free Press.
- Godfrey, P. C., & Hill, C. W. L. (1995). The problem of unobservables in strategic management research. *Strategic Management Journal*, 16, 519–533.
- Helfat, C. E. (1994). Firm-specificity in corporate applied R&D. *Organization Science*, 5 (2), 173–184.
- Henderson, R., & Cockburn, I. (1994). Measuring competence? *Exploring firm effects in pharmaceutical research*. *Strategic Management Journal*, 15 (Winter), 63–84.
- Kor, Y. Y., & Mahoney, J. T. (2000). Penrose's resource-based approach: The process and product of research creativity. *Journal of Management Studies*, 37 (1), 109–140.
- Lado, A. A., Boyd, N. G., & Hanlon, S. C. (1997). Competition, cooperation, and the search for economic rents: A syncretic model. *Academy of Management Review*, 22 (1), 110–141.
- Lieberman, M. B., & Montgomery, D. B. (1998). First-mover (dis)advantages: Retrospective and link with the resource-based view. *Strategic Management Journal*, 19, 1111–1125.
- Liebeskind, J. P. (1996). Knowledge, strategy, and the theory of the firm. *Strategic Management Journal*, 17 (Winter), 93–107.
- Lippman, S. A., & Rumelt, R. P. (1982). Uncertain imitability: An analysis of interfirm differences in efficiency under competition. *Bell Journal of Economics*, 13, 418–438.
- Madhok, A. (1996). The organization of economic activity: Transaction costs, firm capabilities, and the nature of governance. *Organization Science*, 7 (5), 577–590.
- Mahoney, J. T. (1992). The choice of organizational form: Vertical financial ownership versus other methods of vertical integration. *Strategic Management Journal*, 13, 559–584.
- Mahoney, J. T. (1995). The management of resources and the resource of management. *Journal of Business Research*, 33 (2), 91–101.
- Mahoney, J. T., & Pandian, J. R. (1992). The resource-based view within the conversation of strategic management. *Strategic Management Journal*, 13 (5), 363–380.
- Marshall, J., & Radner, R. (1972). *The theory of teams*. New Haven, CT: Yale University Press.
- McNulty, P. J. (1968). Economic theory and the meaning of competition. *Quarterly Journal of Economics*, 82, 639–656.

- Montgomery, C. A., & Wernerfelt, B. (1988). Diversification, Ricardian rents, and Tobin's  $q$ . *Rand Journal of Economics*, 19 (4), 623–632.
- Mosakowski, E. (1993). A resource-based perspective on the dynamic strategy-performance relationship: An empirical examination of the focus and differentiation strategies in entrepreneurial firms. *Journal of Management*, 19, 819–839.
- Mosakowski, E. (1998). Managerial prescriptions under the resource-based view of strategy: The example of motivational techniques. *Strategic Management Journal*, 19, 1169–1182.
- Nelson, R. R. (1991). Why do firms differ, and how does it matter? *Strategic Management Journal*, 12 (Winter), 61–74.
- Nelson, R. R., & Winter, S. G. (1982). *An evolutionary theory of economic change*. Cambridge, MA: Belknap Press.
- Oliver, C. (1997). Sustainable competitive advantage: Combining institutional and resource-based views. *Strategic Management Journal*, 18 (9), 697–713.
- Penrose, E. T. (1959). *The theory of the growth of the firm*. New York: Wiley.
- Peteraf, M. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal*, 14 (3), 79–92.
- Rubin, P. H. (1973). The expansion of firms. *Journal of Political Economy*, 81 (4), 936–949.
- Rumelt, R. P. (1974). *Strategy, structure and economic performance*. Cambridge, MA: Harvard University Press.
- Rumelt, R. P. (1984). Towards a strategic theory of the firm. In B. Lamb (Ed.), *Competitive strategic management* (pp. 556–570). Englewood Cliffs, NJ: Prentice-Hall.
- Schoemaker, P. J. H. (1990). Strategy, complexity and economic rent. *Management Science*, 36, 1178–1192.
- Schumpeter, J. A. (1934). *The theory of economic development*. Cambridge, MA: Harvard University Press.
- Schumpeter, J. A. (1950). *Capitalism, socialism and democracy* (3<sup>rd</sup> edition). New York: Harper & Row.
- Selznick, P. (1957). *Leadership in administration*. New York: Harper & Row.
- Simon, H. A. (1985). Human nature in politics: The dialogue of psychology with political science. *American Political Science Review*, 79, 293–304.
- Singh, K., & Mitchell, W. (1996). Precarious collaboration: Business survival after partners shut down or form new relationships. *Strategic Management Journal*, 17 (Summer), 99–115.
- Slater, M. (1980). The managerial limitations to the growth of firms. *Economic Journal*, 90, 520–528.
- Spender, J.-C. (1996). Making knowledge the basis of a dynamic theory of the firm. *Strategic Management Journal*, 17 (Winter), 45–62.
- Stigler, G. J. (1968). *The organization of industry*. Homewood, IL: Irwin.
- Swedberg, R. (1990). *Economics and sociology*. Princeton, NJ: Princeton University Press.
- Teece, D. J. (1982). Toward an economic theory of the multiproduct firm. *Journal of Economic Behavior and Organization*, 3, 39–63.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18 (7), 509–533.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5, 171–180.
- Williamson, O. E. (1975). *Markets and hierarchies: Analysis and antitrust implications*. New York: Free Press.
- Williamson, O. E. (1985). *The economic institutions of capitalism: Firms, markets, relational contracting*. New York: Free Press.
- Williamson, O. E. (1989). Transaction cost economics. In R. Schmalensee & R. D. Willig (Eds.), *Handbook of industrial organization* (pp. 136–182). Amsterdam: North Holland.
- Williamson, O. E. (1991). Strategizing, economizing, and economic organization. *Strategic Management Journal*, 12 (Winter), 75–94.
- Williamson, O. E. (1996). *The mechanisms of governance*. New York: Oxford University Press.
- Williamson, O. E. (1999). Strategy research: Governance and competence perspectives. *Strategic Management Journal*, 20, 1087–1108.
- Yao, D. (1988). Beyond the reach of the invisible hand: Impediments to economic activity, market failures, and profitability. *Strategic Management Journal*, 9, 59–70.