
H

Hambrick, Donald C. (Born 1946)

Sydney Finkelstein
Dartmouth College, Tuck School of Business,
Hanover, NH, USA

Abstract

Donald Hambrick has been at the forefront of research on strategic leadership for decades. Several times over the years his published work has helped set a research agenda for others, and his own work and his work with his doctoral students has been highly influential in understanding such key elements of organizational life as top management teams, corporate governance, executive decision-making and executive compensation. This article provides a brief overview of this impact.

Donald Hambrick was born in Colorado, USA, in 1946, delivered by the same doctor who had delivered his father. His parents instilled in him a powerful sense of responsibility and drive to achieve, which manifested itself in ever-growing aspirations. From his local newspaper delivery route (which initiated his lifelong habit of starting his day at 4.30 a.m.) to Eagle Scout, All-State Band and tennis champion, Don has always stood out among his peers.

After years on the faculty at Columbia University, and more recently Pennsylvania State

University, Hambrick is acknowledged to be one of the most prolific, and influential, scholars in the entire field of strategic management. While much of his earliest work was on strategy formulation and implementation, over the course of his career he has been very closely associated with some of the most impactful work on strategic leadership. Starting with the landmark study (over 1,500 citations in *Web of Science*) ‘Upper echelons: the organization as a reflection of its top managers’ (1984), Hambrick, as well as his doctoral students, have spearheaded what was arguably a new field within strategy, the study of CEOs and ► [top management teams](#). Of course, much of the early history of research on strategic management dealt with senior executives and especially CEOs, but this work was mostly confined to book-length treatments that often lacked the rigour of what was to come. The field of strategic leadership, in contrast, is based on an extensive research agenda designed to understand top executives and their effects on organizational outcomes.

In his chapter on upper echelons theory in the book *Great Minds in Management* (2005), Hambrick reveals that the first version of these ideas came from a term paper he wrote as a doctoral student at Penn State. It was only a few years later, when in collaboration with his own doctoral student at Columbia, Phyllis Mason, that he laid out the full argument, namely that ‘organizational outcomes are reflections of the values and cognitive bases of powerful actors in the organization’ (Hambrick and Mason 1984: 193). This insight

laid the foundation for a broad research agenda on such topics as CEO power, compensation, personality and decision-making; top management team composition, processes, structure and dynamics; and the roles, decisions, power and processes in boards of directors.

Throughout this activity, Hambrick has continued to help define and investigate the direction of research in this domain. He has studied CEO hubris, compensation and narcissism, as well as top management team commitment to the status quo, network ties, departures following an acquisition and behavioural integration, among other topics.

While it is difficult to rank order his research, there are a few articles that really stand out for blazing new trails and offering new insights. One of the most influential is his original work on managerial discretion with Sydney Finkelstein. Published in 1987, in the midst of the rise of population ecology and institutional theory, the contribution suggested that traditional views of strategy that assume unconstrained choice are simply wrong. Hambrick and Finkelstein carved out a bridge between polar views of organizations. Managerial discretion defined when managers mattered a lot, and when they didn't. Imagine that we didn't have a good answer to the ecologists' question – there would be little reason to study top executives. As a result, in some ways the concept of managerial discretion became the first principle for work on strategy leadership.

In 1991 Hambrick collaborated with Greg Fukutomi on a piece called 'The seasons of a CEO's tenure' that mapped the changing nature of a CEO's job over time. Rather than just saying that short and long tenures have different implications for CEO behaviour, this article delineated critical stages and challenges that CEOs face on the job. What is especially gratifying in this article is the combination of rigour and richness the authors bring to the issue – an unusual combination.

In 2005 Hambrick collaborated with Sydney Finkelstein and Ann Mooney to develop a new theoretical perspective on top executives that is sure to be a font of new research ideas in the future. This paper described 'executive job demands', the root causes for these demands and, most importantly, the implications of very high executive job

demands on behaviours and performance. In some ways this article is a sequel to Henry Mintzberg's classic work on what managers do. What they do can be very difficult, Hambrick, Finkelstein and Mooney indicate, and as these job demands are exhausting, executives may behave in ways that are not expected. It may well be, for example, that some of the major corporate disasters of modern times are due to the excessive job demands some of these executives faced.

Naturally, numerous honours have been received over the years, the most noteworthy being receipt of an honorary doctorate from the Sorbonne (Paris Panthéon Assas, in 2010), one of the major affiliates of the prestigious Universities of Paris. Hambrick was recognized particularly for his path-breaking research in executive leadership and the role of human factors in business strategy and effectiveness. Further, in 2008 and 2009, Hambrick received the Distinguished Scholar and Distinguished Educator Awards, respectively, from the Academy of Management and was President of the Academy of Management in 1992–1993.

See Also

- ▶ [CEO Compensation](#)
- ▶ [Succession Management](#)
- ▶ [Top Management Teams](#)

Selected Works

- 1984 (with P. Mason). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review* 9, 193–206.
- 1987 (with S. Finkelstein). Managerial discretion: A bridge between polar views of organizational outcomes. In *Research in Organizational Behavior* (vol. 9), ed. L. L. Cummings and B. Staw. Greenwich, CT: JAI Press.
- 1991 (with G. Fukutomi). The seasons of a CEO's tenure. *Academy of Management Review* 16, 719–742.
- 2005. Upper echelons theory: Origins, twists and turns, and lessons learned. In *Great Minds in Management*, ed. K. G. Smith and M. A. Hitt. Oxford: Oxford University Press.
- 2005 (with S. Finkelstein and A. Mooney). Executive job demands: New insights for explaining strategic decisions and leader behaviors. *Academy of Management Review* 30, 472–491.

Hawthorne Effect, the

Richard M. Burton
Duke University, The Fuqua School of Business,
Durham, NC, USA

Definition The Hawthorne effect demonstrates that people's attitudes and emotions are important in management and strategy. Evolutionary theory, resource-based theory, knowledge-based theory and dynamic capabilities all incorporate the bounded rationality of the individual, but not the emotional involvement demonstrated in the Hawthorne experiments.

Hawthorne was an AT&T manufacturing plant west of Chicago, Illinois, in the 1930s. Professors Mayo, Roethlisberger and Dickson of Harvard were doing a Taylor-style engineering study at this time. The study design was simply to see the effect of different lighting levels on productivity.

The study design was simple: increase the light intensity and observe the effect on productivity – a Taylor-like experiment. They observed that greater light intensity led to higher productivity; this was expected since better light made it easier to see. But they also observed that decreasing light intensity increased productivity, which was not expected. (But productivity did decrease when the experiment ended.) Why? One explanation is that the workers were suddenly being 'looked at' and taken seriously as individuals with feelings and emotions. People matter. Thus began the human relations revolution in management.

The experimental design was a single independent variable of light intensity with a single dependent variable of productivity. It was flawed: the workers knew they were being studied and that management took an interest in them. In short, the experiment itself was an intrusion and manipulation; measurement itself is part of the experiment. (In physics, this was well known.) Despite the flaws, the experiment had an enormous impact on management, management research and how we think about people in organizations. Does the experiment have implications

for strategy and strategy research? Do we take the individual seriously in strategy and strategy research?

People are important for strategic choice, strategy implementation and change. A good deal of strategy has focused on 'what to do' – that is, what is a good strategic choice? Porter's five forces analysis, or SWOT analysis, focuses on what to do. 'How to do', or implementation, is equally important. Implementation depends on capabilities, resources, processes and procedures, organizational design, group processes and how individuals behave. Again, people are important and complex.

Evolutionary theory, ► [resource-based theories](#), knowledge-based theory and ► [dynamic capabilities](#) are all built up from the individual. The Penrosean (1995) resource-based theory and derivative knowledge-based views include the role of individuals; however, these theories are more abstract than the human relations movement. Similarly, the dynamic capabilities (Helfat et al. 2007; Augier and Teece 2009) view incorporates managerial and human capabilities. The emphasis on procedures and processes in evolutionary theory (Nelson and Winter 1982) is explicit in assumptions about individuals. Strategy research incorporates assumptions about individual behaviour and human relations. Nonetheless, are there implications and opportunities for strategy research?

Perhaps the implications are more cautionary than revolutionary. Here are some: examine the behavioural assumptions in your model – what are you assuming about human behaviour in strategic choice and implementation? Is your research design subject to misinterpretation? Are you missing important insights where behavioural interpretations could help? Are there alternative explanations to what you have found? It is doubtful that strategy research suffers from flawed design to the degree observed in the original Hawthorne study, but the opportunity is that we can deepen our understanding of strategic choice and implementation with these cautionary questions.

If we are to observe a new Hawthorne effect, it may come from individual and group emotions which go beyond bounded rationality (Håkansson et al. 2008). Recent work that builds on

neuroscience to inform our understanding of individual and group emotions indicates that there may be aspects of emotions that are relevant for our understanding of management and strategy; these have not yet been fully developed or unpacked in strategy research.

See Also

- ▶ [Behavioural Strategy](#)
- ▶ [Dynamic Capabilities](#)
- ▶ [Organizational Culture](#)
- ▶ [Resource-Based Theories](#)
- ▶ [Taylor, Frederick Winslow \(1856–1915\)](#)

References

- Augier, M., and D.J. Teece. 2009. Dynamic capabilities and the role of managers in business strategy and economic performance. *Organization Science* 20: 410–421.
- Håkonsson, D.D., B. Obel, and R.M. Burton. 2008. Rational emotionality: Integrating emotions into psychological climate. In *Designing organizations: 21st century approaches*, ed. R.M. Burton, B. Eriksen, D.D. Håkonsson, T. Knudsen, and C. Snow. Boston: Springer Verlag.
- Helfat, C.E., S. Finkelstein, W. Mitchell, and M. Peteraf. 2007. *Dynamic capabilities: Understanding strategic change in organizations*. London: Blackwell.
- Nelson, R., and S. Winter. 1982. *An evolutionary theory of economic change*. Cambridge, MA: Harvard University Press.
- Penrose, E. 1995. *The theory of the growth of the firm*. Oxford: Oxford University Press.

Hayek, Friedrich A. (1899–1992)

Roger Koppl
Syracuse University, Syracuse, NY, USA

Abstract

Nobel laureate F. A. Hayek (1899–1992) developed the themes of dispersed knowledge, spontaneous order, evolution and economic complexity. Hayek's analyses of these themes

contribute to an improved understanding of how organizations may best adapt to recurrent unexpected change in the evolving market order. If knowledge is dispersed, decentralized social orders will generally have better epistemic properties than command-and-control systems. But a decentralized order is complex and hard to design. The division of labour itself is a spontaneous order emergent from an unplanned evolutionary process that generated the very rules that give the system order.

Friedrich August Hayek was a Nobel-winning economist and one of the twentieth century's more important thinkers. His work has been cited frequently in the modern literature on strategic management, especially on the dispersed nature of economic knowledge. Some of these references to Hayek are deep and insightful. More often, however, they are somewhat perfunctory and even, in some cases, erroneous. A review of Hayek's life and career may suggest that a deeper and more widespread appreciation of Hayek's work would be helpful to scholars of strategic management. Several themes of Hayek's work are particularly important for strategic management: dispersed knowledge, complexity, evolution and spontaneous order.

Hayek was born into an upper middle-class family in fin-de-siècle Vienna. During the First World War, he served on the Italian front in the Austrian army. After the war he returned to Vienna and began his university studies, initially studying psychology and later switching to economics, perhaps because an economics degree was a better credential on the job market (Hayek 1994: 48; Caldwell 2004: 139). Before switching to economics, Hayek spent a semester in Zurich, during which he worked in the laboratory of the brain scientist Constantin von Monakow. His experience there led to the production of a monograph on consciousness, an extensive revision of which was later published as *The Sensory Order*.

When Hayek graduated from the University of Vienna in 1921, his teacher, Friedrich von Wieser, recommended him to Ludwig von Mises, who was an officer in Austria's official Chamber of

Commerce. Mises came to have a profound influence on Hayek's work and thought. This influence was first felt when Hayek read Mises's 1922 book *Socialism*, which argued that rational economic calculation under socialism is impossible (Hayek 1981: xix–xx). In 1923 Hayek left the Austrian Chamber of Commerce to accept work as a research assistant for Jeremiah W. Jenks of New York University. In New York he attended lectures by W. C. Mitchell and the seminar of J. B. Clark. These experiences supported Hayek's early work on the Austrian theory of the trade cycle, which he presented in London in a lecture series originally published in 1931 as *Prices and Production*. These lectures led to a professorship at the London School of Economics (LSE), which he held from 1932 to 1949.

In his time at the LSE Hayek took up Mises's argument in the socialist calculation debate. This effort included his famous 1945 article on 'The use of knowledge in society' (reprinted in Hayek 1948), which is frequently cited in the strategy literature. Hayek argued that the knowledge upon which economic decisions are based is dispersed throughout the system, making centralized ► [decision-making](#) generally less effective than decentralized decision-making. Market systems generally outperform collectivist systems because they make better use of dispersed knowledge. In this and other contributions to the socialist calculation debate, Hayek represents knowledge as not only dispersed, but also often tacit and existing in the form of habits of thought and action. Hayek emphasized the limits to reason, taking up the Humean project of trying 'to whittle down the claims of reason by the use of rational analysis' (Wolin 1954: 1001). His work may thus help to provide a rational account of decision-making in 'an ecology of actors trying to act rationally with limited knowledge and preference coherence' (March 1991: 111).

This period also saw the beginnings of Hayek's work on spontaneous order, the idea that potentially beneficial order in society may be an unintended consequence of human action. Hayek quotes Adam Ferguson's statement that 'nations stumble upon establishments, which are indeed the result of human action but not the result of

human design' (Hayek 1948: 7). The 'central question' in social science is 'How can the combination of fragments of knowledge existing in different minds bring about results which, if they were to be brought about deliberately, would require a knowledge on the part of the directing mind which no single person can possess?' (Hayek 1948: 54). Hayek worked on this idea throughout the rest of his career.

While at the LSE Hayek was Keynes's main rival in macroeconomic thinking. Both thinkers emphasized the uncertainty of the future and the role of entrepreneurial error in crises and depressions. Hayek's theory, however, emphasized the relationship between capital structure and interest rates, whereas Keynes emphasized aggregate demand. To bolster his theory, Hayek published *The Pure Theory of Capital* in 1941.

Hayek's most famous work, *The Road to Serfdom*, was published during his tenure at the LSE and at the height of the Second World War. The book was meant to be a warning against habits of thought that Hayek considered dangerous to democracy and freedom. It argued that the expansion of state control would reveal itself over time to be inconsistent with democratic principles. Since each group would have its own economic priorities, it would be impossible to achieve democratic consensus about large-scale collective ends. In the end, society must choose between central planning and democracy. The book became the occasion for Hayek to turn his attentions from relatively technical issues in economic theory and policy towards more philosophical questions of rules, order and the complexity of social life.

After the war Hayek moved to the University of Chicago, where he joined the Committee on Social Thought, a broad interdisciplinary group. Working on problems of the philosophy and methodology of economics, in 1952 Hayek published two important books. In *The Counter-Revolution of Science* he developed the idea of 'subjectivism', arguing that economists must view economic events through the eyes of their subjects. In the second volume, *The Sensory Order*, Hayek laid out his theoretical psychology, developing the central insight that physiological

memory precedes sensation. The work is an independent statement of the connectionist model associated with H. E. Hebb (1949).

Hayek's connectionist model of ► **bounded rationality** may be useful to strategy theorists. It represents the mind as a distributed system in which each neuron is a node in a complex adaptive network of connections, which suggests that minds and markets may function in similar ways. It also tends to support the cyborg view that external devices and social connections support individual cognition, an insight relevant to knowledge management in organizations.

The two books Hayek published in 1952 seem to give very different accounts of human action. *The Counter-Revolution of Science* gives expression to a humanistic vision of the social sciences in which the reader is warned of the dangers of 'scientism'. *The Sensory Order*, by contrast, seems thoroughly 'scientific'. Hayek explains cognition by appeal to 'mechanical' linkages in a network of neurons. The difference between the two books is more apparent than real, however. Although the mind is a kind of machine, its internal structure responds adaptively to its environment. Thus, although each of the underlying principles of its operation is, perhaps, mechanistic, the overall operation is not. 'By a "mechanism" or "mechanical process" we usually understand a complex of moving parts possessing a constant structure which uniquely determines its operations' (Hayek 1952a: 122). The mind, instead, can and does 'continuously change its structure and alter the range of operation of which it is capable' in response to changing external stimuli (p. 122). A mechanistic explanation of human action is only an 'explanation of the principle'. In practice 'mental processes must forever remain phenomena of a special kind which . . . we shall never be able to fully explain in terms of physical laws' (pp. 182 and 191). Hayek thus integrates 'scientific' and 'humanistic' descriptions of human action.

Hayek's discussion of spontaneous order is similar to modern complexity theory. In 'The theory of complex phenomena' (in Hayek 1967) and elsewhere, Hayek developed a theory with

striking similarities to the modern complexity theory of the Santa Fe Institute (Koppl 2009). Simple rules may produce a complex order, whereas plans and commands are generally unable to produce orders that use dispersed knowledge effectively or achieve the levels of complexity found in spontaneous orders.

In the winter of 1961–1962 Hayek was offered a professorship at the University of Freiburg, which he accepted. This came shortly after the publication of *The Constitution of Liberty*, his restatement of the political philosophy of 'classical liberalism'. Hayek was awarded the 1974 Nobel Memorial Prize in Economic Sciences, just after he published volume 1 of his three-volume work, *Law, Legislation and Liberty*, which gave the clearest expression of Hayek's evolutionary vision of social order. If social order is mostly an unintended consequence of human action, then it must be something that has evolved over time:

[The] orderliness of society which greatly increased the effectiveness of individual action was not due solely to institutions and practices which had been invented or designed for that purpose, but was largely due to a process described at first as 'growth' and later as 'evolution', a process in which practices which had first been adopted for other reasons, or even purely accidentally, were preserved because they enabled the group in which they had arisen to prevail over others (Hayek 1973: 9)

Order is created not by plans and commands, but by rules that were adopted more or less arbitrarily, but selected by social evolution, typically producing beneficial effects.

Hayek's idea of dispersed knowledge is often cited in the strategic management literature, but the full implications of the idea are less often recognized. If knowledge is dispersed, then decentralized social orders will generally have better epistemic properties than command-and-control systems. But a decentralized order is hard to design, in part because of its complexity. And in fact, the ramified division of labour characteristic of civilization is a spontaneous order that emerged from an unplanned evolutionary process, which

generated the very rules that give the system order. Hayek's analyses of dispersed knowledge, complexity, evolution and spontaneous order contribute to an improved understanding of how organizations may best adapt to recurrent unexpected change in the evolving market order.

See Also

- ▶ [Austrian Economics](#)
- ▶ [Bounded Rationality](#)
- ▶ [Decision-Making](#)

References

- Caldwell, B. 2004. *Hayek's challenge: An intellectual biography of F. A. Hayek*. Chicago and London: University of Chicago Press.
- Hebb, D.O. 1949. *The organization of behavior: A neuropsychological theory*. New York: Wiley.
- Koppl, R. 2009. Complexity and Austrian economics. In *Handbook on complexity research*, ed. J. Barkley Rosser Jr.. Cheltenham: Edward Elgar.
- March, J.G. 1991. How decisions happen in organizations. *Human-Computer Interaction* 6: 95–117.
- Wolin, S.S. 1954. Hume and conservatism. *American Political Science Review* 48: 999–1016.

Selected Works

- Hayek, F.A. [1931] 1935. *Prices and production*, 2nd ed. New York: Augustus M. Kelley.
- Hayek, F.A. 1941. *The pure theory of capital*. Chicago: University of Chicago Press.
- Hayek, F.A. 1944. *The road to serfdom*. Chicago: University of Chicago Press.
- Hayek, F.A. 1948. *Individualism and economic order*. Chicago: University of Chicago Press.
- Hayek, F.A. 1952a. *The sensory order*. Chicago: University of Chicago Press.
- Hayek, F.A. 1952b. *The counter-revolution of science: Studies on the abuse of reason*. Chicago: University of Chicago Press.
- Hayek, F.A. 1960. *The constitution of liberty*. Chicago: University of Chicago Press.
- Hayek, F.A. 1967. *Studies in philosophy, politics, and economics*. Chicago: University of Chicago Press.
- Hayek, F.A. 1973. *Law, legislation and liberty*, Rules and order, vol. 1. Chicago: University of Chicago Press.

Hayek, F.A. 1981. Foreword. In *Socialism: An economic and sociological analysis*, ed. L. von Mises. Indianapolis: Liberty Classics.

Hayek, F.A. 1994. In *Hayek on Hayek: An autobiographical dialogue*, ed. Stephan Kresge, and Leif Wenar. Chicago: University of Chicago Press.

Hedging Strategies

Timothy B. Folta¹ and Arkadiy V. Sakhartov²

¹University of Connecticut, Storrs, CT, USA

²University of Pennsylvania, Philadelphia, PA, USA

Definition A hedging strategy is a managerial decision that reduces a firm's exposure to external shocks. Firms implement hedging strategies to protect against risks. Strategic hedging is defined as *managerial choices that reduce a firm's exposure to external shocks* or uncertainty around competition, market demand, technology, input cost, expropriation, regulation and other external uncertainties threatening corporate strategy.

Hedging has been defined by Brealey and Myers (1988: G5) in their book *Principles of Corporate Finance* as 'Buying one security and selling another in order to reduce risk. A perfect hedge produces a riskless portfolio.' While this definition describes the hedging of financial risk, financial securities are frequently incapable of hedging the risks (i.e., exposures to external shocks) most relevant to ▶ [corporate strategy](#), such as uncertainty around competition, market demand, technology, input cost, market share, expropriation or regulation. Thus, at a more general level, hedging strategies can be defined as *managerial choices that reduce a firm's exposure to external shocks*. Strategic hedging is different from financial hedging in two ways, described below.

First, instead of buying and selling financial securities to hedge, firm managers undertaking strategic hedging make choices around real assets. Strategic hedging against external shocks can be accomplished through alternative means, such as

by *deferring* investment, *switching* resources from one market to another, *maintaining* a presence in a market rather than abandoning, or incrementally *growing* a business. For example, assume a firm has a corporate strategy to enter into a foreign market, say, China. Certainly, financial markets can be used to hedge against currency and/or sovereign risk. However, financial markets may be less capable at hedging market demand or supply risk associated with China. Strategic hedging may involve deferring entry until demand or supply warrants otherwise (i.e., the option to defer); maintaining a greenfield investment or a partnership with a domestic firm to retain the flexibility of divesting (i.e., the option to abandon) or growing (i.e., option to expand) the business, perhaps through partner acquisition; or establishing a flexible manufacturing system to allow the possibility to switch inputs or outputs if necessary (i.e., option to switch). Strategic hedging is not limited to the types of options described here (see Amram and Kulatilaka 1999).

The second difference between strategic hedging and financial hedging is more complex, and follows from the first. In financial hedging, both the portfolio and the hedge are liquid securities; whereas in strategic hedging both the markets for strategic resources (Barney 1986) and for options on such resources (Miller 1998) are imperfect. Because strategic decisions tend to be difficult to reverse, their implementation has path-dependent implications (Teece et al. 1997). ▶ [real options](#) methods present an opportunity to incorporate path dependency, enabling a refinement in theoretical arguments in strategic management. While closed-form analytical solutions are frequently impossible under such complexity, there are numerical valuation techniques (e.g., quasi-Monte Carlo simulation or binomial approximation) allowing for the quantitative modelling of complexity inherent in path dependency. Such efforts can be used to verify existing theoretical intuition, and uncover interactions not previously discovered (e.g., Sakhartov and Folta 2013). Moreover, they might serve as a platform to develop structural empirical models better capable of testing theory.

The extent and means to which strategic hedging is used will be idiosyncratic to firms, time

periods and strategic contexts. For example, while deferring entry into China may protect against demand risk at one point in time, if chosen in a later period it may expose the firm to pre-emption by rivals. Moreover, different potential entrants may have different thresholds for acceptable risks or different exposures to the same risk factors. Finally, deferral may be less reasonable in contexts deemed to be less risky, such as Eastern Europe. Corporate strategists must carefully consider the exposures they are willing to accept, and act on those they are unwilling to accept.

In this review, we have considered how strategic hedging is different from financial hedging. The properties of the assets in strategic decision-making suggest that strategic hedging is simultaneously more difficult and more important. Quantification of strategic hedging can be implemented through numerical techniques, which might potentially enlighten our theoretical and practical understanding of corporate strategy.

See Also

- ▶ [Corporate Strategy](#)
- ▶ [Diversification](#)
- ▶ [Real Options](#)
- ▶ [Risk and Uncertainty](#)

References

- Amram, M., and N. Kulatilaka. 1999. *Real options: Managing an uncertain investment in an uncertain world*. Cambridge, MA: Harvard Business School Press.
- Barney, J.B. 1986. Strategic factor markets: Expectations, luck, and business strategy. *Management Science* 32: 1231–1241.
- Brealey, R.A., and S.C. Myers. 1988. *Principles of corporate finance*. New York: McGraw-Hill/Irwin.
- Miller, K.D. 1998. Economic exposure and integrated risk management. *Strategic Management Journal* 19: 497–514.
- Sakhartov, A. V., and Folta, T. B. 2013. Inducements for resource redeployment and value of growth opportunities. Working paper, Wharton Business School.
- Teece, D.J., G. Pisano, and A. Shuen. 1997. Dynamic capabilities and strategic management. *Strategic Management Journal* 18: 509–533.

Heterarchy

Marina Papanastassiou¹ and Robert Pearce²

¹Middlesex University, London, UK

²University of Reading, School of Economics, Reading, UK

Abstract

In recent decades, the increased freedoms and facility of international transfers and transactions has allowed multinational enterprises (MNEs) to take more subtle and nuanced views of the potentials of particular locations. These potentials have themselves become more heterogeneous as countries have sought to differentiate their economies, increasingly around knowledge-based creative attributes. The concept of *heterarchy* (Hedlund 1986) was an important pioneering attempt to conceptualize the MNE's organization as responding to such differences. Thus, a diverse range of subsidiary positions were now seen to encompass both the *exploitation* of current competitive advantages and the *exploration* of new ones. This included the devolution to subsidiaries of *strategic* roles that pursued radical problem-solving and action programmes for seeking and generating new firm-specific advantage. This was seen to require a movement from hierarchical control structures towards normative processes that can allow for the realization of symbiotic potentials from diverse environments.

Definition In a corporation structured as a heterarchy, 'many centres of several different kinds (e.g. in terms of functional, geographical, or product responsibility) are co-ordinated increasingly through normative means ... in order to utilise the symbiotic potential in the environment' (Hedlund and Rolander 1990: 22).

A plausible 'view of the processes of globalisation, that have conditioned the evolution of the MNE over the past 40 years, is that they have allowed these firms to leverage to greater competitive advantage the differences between locations'

(Papanastassiou and Pearce 2009: 1). Alongside this, the range of locations accessible for securing distinctive and increasingly dynamic inputs to MNE competitiveness has grown notably. Crucially influential in this has been the number of countries seeking to build sources of dynamic comparative advantage through a commitment to science, technology and creative human capital; in effect, national systems of innovation (Freeman 1991; Lundvall 1992; Nelson 1993). By the early 1980s, research on MNEs' strategic profiles had begun to recognize an emerging propensity to tap into these dispersed knowledge sources as facets of a nascent decentralization of innovation and competitive renewal. Thus, evidence had emerged of both internationalization of R&D in US MNEs (Ronstadt 1978; Behrman and Fischer 1980) and of subsidiary-level product development responsibilities in product mandates (Poynter and Rugman 1982; Rugman 1983) and of product specialists or strategic independents (White and Poynter 1984). Such developments were an immediate challenge to antecedent views of MNEs as centre-dominated hierarchies in which international operations played innately submissive and dependent roles.

The most influential pioneering attempt to address these issues and provide a reconfigured understanding of the MNE's evolving organizing structures was the *heterarchy* of Hedlund (1986, 1993, 1994; Hedlund and Rolander 1990; Birkinshaw 1994). In his first path-breaking presentation of heterarchy, Hedlund (1986) draws its intellectual roots from Perlmutter's (1965) classification of types of MNE, discerning relevance in 'geocentrism' rather than 'ethnocentrism' or 'polycentrism'. For Hedlund, the essence was now of system-wide competition, instead of being confined within each market, so that 'the MNC exploits systems advantages, subsidiaries, and country-specific advantages being considered the parts of the system'. From this, 'subsidiaries specialise and operate globally in limited fields', so that the MNC 'internalises the exploitation of (country) competitive advantages' (Hedlund 1986: 15). But Hedlund (1986: 18–20) is then concerned by the danger that such geocentricity could be seen merely 'as the scaling up of the

national corporation, thereby getting rid of the international dimension of business and re-establishing central strategic direction from a centre, which is at the apex of one, big global hierarchy’.

The delineation of heterarchy thus seeks to articulate a much richer understanding of MNEs’ international potentials, with a fundamental reconsideration of the positioning of *strategy* and *structure*. Indeed, in a subsequent presentation of heterarchy, Hedlund and Rolander (1990) draw on a detailed critique of the Chandlerian environment → strategy → structure paradigm. Most notably, the aim of heterarchy is to escape from a presumed linear determinacy in such a progression. Thus, a heterarchical *structure* is designed ‘to utilise the symbiotic potential in the environment, which is seen as something to a large extent created by the firm, and unique to it’ (Hedlund and Rolander 1990: 22). Again, to avoid *strategy’s* ‘connotations of calculated premeditation’, Hedlund and Rolander now prefer to describe ‘what the firm does as action’ (1990: 22–24). Crucially, for our emphases here, such *action* can involve programmes that target exploitation of given (in the short run) environments, capabilities and resources, and seek the renewal of these through experimentation, changing relationships to the external world as well as internally.

As indicated in our preamble, it is now logical to see, in retrospect, that the ability to address competitive regeneration from multiple and geographically diverse sources was the crucial evolution central to the heterarchy as a ‘hypermodern’ MNE. In the early listings of the distinctive features of heterarchy (Hedlund 1986: 20–27; Hedlund and Rolander 1990: 24–27), two address this directly: first, ‘*action programmes for seeking and generating new firm-specific advantages through global spread*’; second, that this can allow for ‘*radical problem orientation*’, and not be constrained to starting from existing resources or from current ‘positions in narrow fields of business’. These defined the way ‘that heterarchical elements in organisations support, in particular, programmes of experimentation and an active stance *vis-à-vis* the environment’ (Hedlund and Rolander 1990: 25).

Addressing the different facets of these exploratory aims in dispersed environments, along with the continued need for effective exploitation of existing capacities, means the heterarchical MNE will encompass *many centres, of different kinds*. Such a structure will need to be flexible over time and focus on proactive coherence, with less worry over any apparent logical inconsistency. Crucial to such diversified organizational flexibility will then be the fact that ‘there is not one overriding dimension superordinate to the rest’ (Hedlund 1986: 22) so that, for example, functions, products, locations, types of customer or supplier can all assert influence. From this, it clearly emerges that in heterarchy crucial *strategic roles* are devolved to subsidiaries, so that corporate-level strategy is formulated as well as implemented in a geographically dispersed network. This dispersal of specialized operations, central to the creative dynamism of the MNE, naturally dissipates the main sources of hegemonic power that were traditionally expected to be executed from a hierarchical HQ. Thus, key challenges to effective heterarchy are to secure synergies and coherence within the overall structure in ways that allow each part to fully realize and contribute its individualized potentials.

An immediate implication of a heterarchy’s operating through many centres playing different roles is that it will then be involved in an extensive and varied range of transactions, both internal and external to the firm. This leads to the need for a *wide range of governance modes*, which can lie anywhere between pure market exchanges and hierarchy. In the same way, various institutional arrangements, such as joint ventures or R&D collaborations, can be implemented with other firms and actors as part of the procedures for synergistic learning in the global environment. These organizational flexibilities make ‘the heterarchical MNC a meta-institution, whose unique role is the effective design, on the basis of experience, of institutional arrangements for specific tasks’ (Hedlund and Rolander 1990: 23). Finally, the primary means of integration in this ever-evolving nexus of diverse interests, with an endemic potential to ‘break down into anarchy’, is advocated to be normative control and socialization mechanisms.

See Also

- ▶ [Exploration and Exploitation](#)
- ▶ [Leveraging Foreign Subsidiaries' Skills](#)
- ▶ [Strategy and Structure of the Multinational Enterprise \(MNE\)](#)

References

- Behrman, J.N., and W.A. Fischer. 1980. *Overseas R&D activities of transnational companies*. Cambridge, MA: Oelgeschlager, Gunn & Hain.
- Birkinshaw, J.M. 1994. Approaching heterarchy: A review of the literature on multinational strategy and structure. *Advances in International Comparative Management* 9: 111–144.
- Freeman, C. 1991. Networks of innovation: A synthesis of research issues. *Research Policy* 20: 499–514.
- Hedlund, G. 1986. The hypermodern MNC: A heterarchy? *Human Resource Management* 25: 9–35.
- Hedlund, G. 1993. Assumptions of hierarchy and heterarchy, with applications to the management of the multinational corporation. In *Organisational theory and the multinational corporation*, ed. S. Ghoshal and E. Westney. London: Palgrave Macmillan.
- Hedlund, G. 1994. A model of knowledge management on the N-form corporation. *Strategic Management Journal* 15: 73–90.
- Hedlund, G., and D. Rolander. 1990. Action in heterarchies – new approaches to managing the MNCs. In *Managing the global firm*, ed. C.A. Bartlett, Y. Doz, and G. Hedlund. London: Routledge.
- Lundvall, B.A. 1992. *National systems of innovation: Towards a theory of innovation and interactive learning*. London: Pinter.
- Nelson, R.R. 1993. *National systems of innovation*. Cambridge, MA: Harvard University Press.
- Papanastassiou, M., and R. Pearce. 2009. *The strategic development of multinationals: Subsidiaries and innovation*. London: Palgrave Macmillan.
- Perlmutter, H. V. 1965. L'entreprise internationale – trois conceptions. *Revue économique et sociale*, 23
- Poynter, T.A., and A.M. Rugman. 1982. World product mandates: How will multinationals respond? *Business Quarterly* 47: 54–61.
- Ronstadt, R.C. 1978. International R&D: The establishment and evolution of R&D abroad by seven US multinationals. *Journal of International Business Studies* 9: 7–24.
- Rugman, A.M. 1983. Multinational enterprises and world product mandates. In *Multinationals and technology transfer: The Canadian experience*, ed. A.M. Rugman. New York: Praeger.
- White, R.E., and J.A. Poynter. 1984. Strategies for foreign-owned subsidiaries in Canada. *Business Quarterly* 48: 59–69.

Heterogeneity and Performance

David G. Hoopes

California State University Dominguez Hills,
Department of Management, College of Business
Administration and Public Policy, Carson,
CA, USA

Abstract

A basic premise in the field of business strategy is that close competitors will have different strategies and different levels of success. Yet economic logic suggests that success will attract competitors and imitation; competition should weed out weak performers and competitors should converge on a best way of doing things. Since the 1970s, strategy scholars have reported on within-industry heterogeneity. They described how mobility barriers allowed strategic groups to exist and how isolating mechanisms allowed individual firms unique competitive positions. Since then it has been shown that, despite competition and imitation, close competitors have different strategies, resources, capabilities and preferences, leading to varying levels of economic performance.

Definition Do close competitors have different strategies and different performance levels? Economic logic suggests that highly profitable firms will attract competition, and that competition should make being unique and uniquely successful very difficult. However, strategic management scholars show that firms within an industry vary in strategy and performance.

How do firms differ and how much does it matter? Economic logic suggests that highly profitable firms or industries will attract competition, and that competition should make being unique and uniquely successful very difficult. This logic continues to serve as a foil for a good deal of thinking in strategy. Scholars in strategic management and in economics have developed theory and empirical work showing how reality deviates from the basic economic logic.

Rumelt et al. (1994: 225–228) asked ‘How do firms differ?’ However, the question of within-industry heterogeneity goes back (as least) to Hatten and Schendel (1977). The history of heterogeneity and strategy maps tightly onto the emergence of strategy as a field. The explanations Rumelt and colleagues note are three of the dominant theories of strategy that emerged in the 1970s and early 1980s: market share (BCG 1972; Gale 1972); strategic groups and industry structure (Caves and Porter 1977; Hatten and Schendel 1977; Porter 1979); and firm uniqueness through isolating mechanisms (Lippman and Rumelt 1982; Rumelt 1984).

The Boston Consulting Group (1972) maintained that firms within an industry differed because they had different levels of experience in manufacturing. The differences mattered because those farther down the experience curve had lower unit costs, could price below competition, increase market share and add to their cost advantage. Hatten and Schendel (1977) suggest that within-industry heterogeneity obtained in the US brewing industry because firms in that industry clustered into discrete groups. Lippman and Rumelt (1982), Rumelt (1984) show how *ex ante* uncertainty and isolating mechanisms (they emphasize causal ambiguity) can result in firms that differ in their bundle of resources and relationships and in their profitability.

Although very popular throughout the 1970s, the market share explanation for heterogeneity and performance subsequently became less popular (see Rumelt and Wensley 1981 for a discussion). Strategic groups commanded a good deal of attention during the 1980s but have also become less popular since. Barney and Hoskisson (1990) discuss some problems with the strategic group literature. Johnson and Hoopes (2003) review the cognitive strategic group’s literature in terms of **competitive heterogeneity**. In the 1980s much of the work in strategy drifted towards firm uniqueness. However, heterogeneity per se was not addressed much. The **resource-based view** (RBV) and capability theories were emerging. Each of these approaches offers

explanations for heterogeneity in addition to other phenomenon.

The resource-based view as described by Wernerfelt (1984) argued that firm strategy would benefit from examining the firm in terms of resources instead of products alone. Along with Barney (1986, 1991), Rumelt (1984), and Peteraf (1993) this led to a large amount of work examining the importance of unique resources to competitive advantage.

At the same time, Teece et al. (1997), developing work by Nelson and Winter (1992), Lippman and Rumelt (1982), and Teece (1980, 1982) among others, introduced the **dynamic capabilities** perspective. The dynamic capabilities perspective sought to integrate the resource-based view of the 1980s, work from various heretical economists and the work from the Harvard Business School (HBS) operations management department.

Also during this time a group from the HBS operations management group produced a stream of work that demonstrated how capabilities defined performance differences between manufacturing competitors (Hayes and Wheelwright 1984; Hayes et al. 1988; Henderson and Clark 1990; Clark and Fujimoto 1991). This work is particularly interesting because it demonstrated quite clearly how competing firms differed significantly in manufacturing and product development (see Hoopes and Madsen (2008) for a review of competitive heterogeneity and capabilities).

As the RBV and capability narratives dominated the field of strategic management, discussion on heterogeneity per se stayed on the back burner. Nevertheless, heterogeneity as described by Rumelt et al. (1991) has received attention (Levinthal 1995; Mehra and Floyd 1998; McEvily and Zaheer 1999; Noda and Collis 2001). Hoopes et al. (2003) describe competitive heterogeneity with respect to competitive advantage and discuss further sources of performance heterogeneity. Additionally, heterogeneity and capital (Calomiris and Hubbard 1990; Balakrishnan and Fox 1993) and heterogeneity and international business (Shaver and Flyer 2000; Yeaple 2005; Greenaway and Kneller 2007) have been studied.

See Also

- ▶ [Competitive Heterogeneity](#)
- ▶ [Dynamic Capabilities](#)
- ▶ [Inter-and Intra-industry](#)
- ▶ [Resource-Based View](#)

References

- Balakrishnan, S., and I. Fox. 1993. Asset specificity, firm heterogeneity and capital structure. *Strategic Management Journal* 14: 3–16.
- Barney, J.B. 1986. Strategic factor markets: Expectations, luck and business strategy. *Management Science* 32: 1231–1241.
- Barney, J.B. 1991. Firm resources and sustained competitive advantage. *Journal of Management* 17: 99–120.
- Barney, J.B., and R.E. Hoskisson. 1990. Strategic groups: Untested assertions and research proposals. *Managerial and Decision Economics* 11: 187–198.
- BCG (Boston Consulting Group). 1972. *Perspectives on experience*. Boston: Boston Consulting Group.
- Calomiris, C.W., and R.G. Hubbard. 1990. Firm heterogeneity, internal finance, and ‘credit rationing’. *The Economic Journal* 100: 90–104.
- Caves, R.E., and M.E. Porter. 1977. From entry barriers to mobility barriers: Conjectural decisions and contrived deterrence to new competition. *Quarterly Journal of Economics* 91: 241–261.
- Clark, K.B., and T. Fujimoto. 1991. *Product development performance: Strategy, organization, and management in the world auto industry*. Boston: Harvard University Press.
- Gale, B.T. 1972. Market share and rate of return. *Review of Economics and Statistics* 54: 412–423.
- Greenaway, D., and K. Kneller. 2007. Firm heterogeneity, exporting and foreign direct investment. *The Economic Journal* 117: F134–F161.
- Hatten, K.J., and D.E. Schendel. 1977. Heterogeneity within an industry: Firm conduct in the U.S. brewing industry, 1952–71. *Journal of Industrial Economics* 26: 97–113.
- Hayes, R.H., and S.C. Wheelwright. 1984. *Restoring our competitive edge: Competing through manufacturing*. New York: Wiley.
- Hayes, R.H., S.C. Wheelwright, and K. Clark. 1988. *Dynamic manufacturing: Creating the learning organization*. New York: Free Press.
- Henderson, R., and K.C. Clark. 1990. Architectural innovation: The reconfiguration of existing product technologies and the failure of established firms. *Administrative Science Quarterly* 35: 9–30.
- Hoopes, D.G., and T. Madsen. 2008. A capability-based view of competitive heterogeneity. *Industrial and Corporate Change* 17: 393–427.
- Hoopes, D.G., T.L. Madsen, and G. Walker. 2003. Why is there a resource-based view? Toward a theory of competitive heterogeneity. *Strategic Management Journal* 24: 889–902.
- Johnson, D.R., and D.G. Hoopes. 2003. Managerial cognition, sunk costs and the evolution of industry structure. *Strategic Management Journal* 24: 1057–1068.
- Levinthal, D.A. 1995. Strategic management and the exploration of diversity. In *Resource-based and evolutionary theories of the firm: Toward a synthesis*, ed. C.A. Montgomery. Boston: Kluwer Academic.
- Lippman, S.A., and R.P. Rumelt. 1982. Uncertain imitability: An analysis of interfirm differences in efficiency under competition. *Bell Journal of Economics* 13: 418–438.
- McEvily, B., and A. Zaheer. 1999. Bridging ties: A source of firm heterogeneity in competitive capabilities. *Strategic Management Journal* 20: 1133–1156.
- Mehra, J., and S.W. Floyd. 1998. Product market heterogeneity, resource imitability and strategic group formation. *Journal of Management* 24: 511–531.
- Nelson, R., and S. Winter. 1982. *An evolutionary theory of economic change*. Cambridge, MA: Harvard University Press.
- Noda, T., and D.J. Collis. 2001. The evolution of intraindustry firm heterogeneity: Insights from a process study. *Academy of Management Journal* 44: 897–925.
- Peteraf, M.A. 1993. The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal* 14: 179–191.
- Porter, M.E. 1979. The structure within industries and companies’ performance. *Review of Economics and Statistics* 61: 214–227.
- Rumelt, R.P. 1984. Towards a strategic theory of the firm. In *Competitive strategic management*, ed. R. Lamb. Englewood Cliffs: Prentice Hall.
- Rumelt, R.P., and Wensley, R. 1981. In search of the market share effect. *Proceedings of the Academy of Management*, Aug, 1–5.
- Rumelt, R.P., D. Schendel, and D. Teece (eds.). 1994. *Fundamental issues in strategy*. Boston: Harvard Business School Press.
- Shaver, J.M., and F. Flyer. 2000. Agglomeration economies, firm heterogeneity, and foreign direct investment in the United States. *Strategic Management Journal* 21: 1175–1193.
- Teece, D.J. 1980. Economies of scope and the scope of the enterprise. *Journal of Economic Behavior & Organization* 1: 223–245.
- Teece, D.J. 1982. Towards an economic theory of the multiproduct firm. *Journal of Economic Behavior & Organization* 3: 39–64.
- Teece, D.J., G. Pisano, and A. Shuen. 1997. Dynamic capabilities and strategic management. *Strategic Management Journal* 18: 509–533.

- Wernerfelt, B. 1984. A resource-based view of the firm. *Strategic Management Journal* 5: 171–180.
- Yeaple, S.R. 2005. A simple model of firm heterogeneity, international trade, and wages. *Journal of International Economics* 65: 1–20.

Heuristics and Biases and Strategic Decision-Making

Sari Carp¹ and Zur Shapira²

¹Jerusalem, Israel

²New York University, Leonard N Stern School of Business, New York, NY, USA

Abstract

Research on judgement under uncertainty shows that people often fail to behave according to normative principles. Reviewing three judgemental heuristics and two choice heuristics that more accurately describe people's actual behaviour, we comment on the relation between heuristics and biases and on the new framework of dual processes contrasting intuitive and deliberative judgement (cf., Kahneman Thinking, fast and slow. Farrar, Straus and Giroux, New York, 2011). Presenting strategy research focused on heuristics, we highlight the possible role that the dual approach can play in studying strategic decision-making.

Definition A heuristic is a 'rule of thumb', or shortcut, that helps people make quick or intuitive judgements without apparent deliberation or calculation. A bias is a systematically incorrect outcome generated by the use of a heuristic. It differs from the correct, unbiased outcome that would result from the use of a normative rule to solve the same problem.

Tversky and Kahneman (1974) popularized the idea of heuristics and biases in numerous articles, the first of which demonstrated that people use small samples when estimating probabilities. Their article 'The belief in the law of small numbers' (Tversky and Kahneman 1971) demonstrated a

bias later categorized as an exemplar of the representativeness heuristic. Tversky and Kahneman stated: 'people rely on a *limited number* of heuristic principles which reduce the complex tasks of assessing probabilities and predicting values to simpler judgemental operations' (1974: 1124). In this entry, we review a few main heuristics but not the long and growing list of biases. We identify the three main heuristics appearing in the Tversky and Kahneman (1974) article and belonging to the category of judgemental heuristics, and describe a couple of others in the category of choice heuristics.

Judgemental Heuristics

Availability

Tversky and Kahneman identified three principal judgemental heuristics. The first of these, *availability*, refers to the ease with which an occurrence is brought to mind (Tversky and Kahneman 1973). The more 'available' an outcome is, the higher the probability an individual will assign to it. For example, a person might judge the probability of a car accident by the frequency of notable car accidents among her own acquaintances. The availability heuristic leads decision-makers to overestimate the probability of salient events. In general, more recent events can be more easily recalled than distant ones.

The use of the availability heuristic produces several biases. For example, the 'retrievability' bias applies when the memory structure of individuals affects their judgement of frequency. If given a list of an equal number of men and women, on which the women are more famous, an individual is likely to assert that there are more women on the list. The 'effectiveness of search set' bias describes a situation in which, when required to assess the frequency of outcomes, an individual will overestimate the likelihood of those that are more easily understood. For example, when asked whether there are more words starting with the letter 'r' or with 'r' as the third letter, most people choose the former outcome, as it is easier to think of words by first letter than by third. The 'imaginability' bias results in overestimation of the probabilities of easily imagined events, such as earthquakes or market crashes.

Representativeness

This heuristic describes the process of judging whether an item or outcome belongs to a particular category or class by the degree to which it is representative of that class. You might determine whether an animal is a giraffe by observing the length of its neck and whether or not it has stripes.

Reliance on the representativeness heuristic generates the ‘insensitivity to prior probabilities’ bias. Decision-makers violate Bayes’ rule, ignoring base rates whenever other information, even if irrelevant, is given. A classic example is the librarian/farmer experiment. Subjects are informed that the frequency of librarians in the population is much lower than that of farmers. Nonetheless, when told that Linda is shy, most subjects believe she must be a librarian because librarians are stereotypically shy. The ‘insensitivity to sample size’ bias leads individuals to assume the same dispersion of probabilities for large and small samples (Tversky and Kahneman 1974). One might expect a large and a small hospital to have the same probability of delivering over 60% male babies, but statistically, the small hospital has a much higher probability of experiencing an unusual event. The ‘misconception of chance’ bias describes the fact that individuals expect data generated by a random process to look random. This is epitomized by the ‘gambler’s fallacy’, that is, the belief that black is likelier to come up on the roulette wheel after a long run of red.

Anchoring and Adjustment

Decision-makers estimate the value of an outcome by adjusting from an initial value, or anchor. In determining a reasonable price for an item, for example, we might anchor from the price we paid the last time we bought it. The ‘insufficient adjustment’ bias describes the common tendency to fail to shift sufficiently far from the initial value of the variable to be estimated. For example, decision-makers might extrapolate the value of the problem $1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8$ from the first few calculations in the series, whose value is naturally much smaller than those of the last few. The ‘conjunctive and disjunctive events’ bias refers to the overestimation of the probability of events that must occur in

conjunction and underestimation of the probability of events that occur independently. The probability of a conjunctive event is lower than that of the simple event – the anchor – and the probability of a disjunctive event is higher, but individuals fail to realize this.

Exemplar Choice Heuristics

Satisficing

In a pioneering article, Simon (1955) proposed that for many of their most important choices, people do not pursue the rational model – one based on precise calculations ending in maximization. Rather, Simon argued that aspirations guide the way people make choices. Because the human mind is not equipped to make the very complex calculations often needed for maximization, decision-makers instead set targets and choose the first alternative they encounter that meets the target – that is, they ‘satisfice’. Obviously, satisficing can often lead to suboptimal choices as compared with maximization; however, it provides a satisfactory criterion for ending search and deliberation.

The Affect Heuristic

Slovic and colleagues (2002) defined a new heuristic, the affect heuristic, which describes an individual’s reliance on feelings derived from instinctive responses to a stimulus. Such responses are automatic and rapid, and they can be either positive or negative. The affect heuristic differs from those defined by Tversky and Kahneman in that it is not a cognitive phenomenon. Slovic and colleagues argued that it is often more efficient, and certainly simpler, for decision-makers to use affect and emotion, rather than rational analysis, when faced with complex problems. Essentially, negative affective responses to a stimulus will encourage the decision-maker to take actions to avoid repeat exposure to it; positive responses will motivate her to do the reverse.

Slovic and colleagues’ definition of the affect heuristic includes an ‘affect pool’ that contains all the positive and negative ‘tags’, or associations,

that decision-makers have with objects or events. These references then act as cues in complex decisions involving the objects or events tagged in the pool. Reactions to others' facial expressions – and the subsequent conclusions we draw with respect to their intentions and credibility – are one example. The affect heuristic also implies that initial positive or negative associations with a stimulus can prove especially strong, continuing to condition an individual's responses to this stimulus even in the face of contrary evidence in the future. In such situations, affect clearly dominates rational cognitive updating.

The Dual Processes Approach

Research in cognitive psychology has long shown that judgement and decisions can be described by automated, associative, quick processes on the one hand and as deliberate, rule-based processes on the other (Evans and Over 1996; Sloman 1996). Kahneman and Frederick (2005) follow Stanovich and West (2002) in labelling these processes as system 1 and system 2, respectively, to denote intuitive and deliberative modes of reasoning. The first system – fast, automatic, effortless and habit driven – is marked by high accessibility, which is the ease with which mental content comes to mind and facilitates intuitive judgements. The second is slow, serial, effortful and rule-governed; its deliberations often produce conclusions at odds with the intuitive system. These two systems operate simultaneously; current research on reasoning attempts to understand their interactions (cf., Kahneman 2011).

Heuristics, Biases and Strategy Research

Schwenk (1984) was one of the pioneers in pointing researchers to the importance of heuristics and biases in strategic [▶ decision-making](#). He discussed representativeness and anchoring and adjustment, along with other psychological mechanisms, to demonstrate the role of cognitive simplification in strategic decisions. A more recent

example of work employing heuristics and biases to analyse strategic decisions is Garbuio et al. (2010) analysis of the role heuristics and biases play in merger and acquisition decisions. Other recent work demonstrates how reliance on small samples can lead to erroneous estimation of the probability of strategic surprises (Lampel and Shapira 2001), as well as the effects of anchoring on biased insurance decisions (Shapira and Venezia 2008) and on capital budgeting decisions (Shapira and Shaver 2011).

While cognitive biases inspired a flurry of research in marketing and economics, strategy researchers have tended to focus on a larger notion of cognition, one that acknowledges the major role of context in such decisions. Thus, mechanisms such as cognitive maps and sense-making appear at times to be more relevant to managerial decision-making than heuristics and biases. However, when heuristics are combined with framing, behavioural decision-making becomes more relevant. We feel that the dual processes approach, with its focus on the intuitive system on the one hand and the deliberative system on the other, can prove more useful in the analysis of strategic decision-making in situations where expertise, ignorance, skill and uncertainty play a major role. Indeed, Mintzberg's (1973) pioneering study demonstrated how the above ingredients characterize managerial decision-making.

See Also

- ▶ [Behavioural Strategy](#)
- ▶ [Bounded Rationality](#)
- ▶ [Cognition and Strategy](#)
- ▶ [Decision-Making](#)

References

- Evans, J., and D. Over. 1996. *Rationality and reasoning*. Hove: Psychology Press.
- Garbuio, M., D. Lovallo, and J. Horn. 2010. Overcoming biases in M&A: A process perspective. *Advances in Mergers and Acquisitions* 9: 83–104.
- Kahneman, D. 2011. *Thinking, fast and slow*. New York: Farrar, Straus and Giroux.

- Kahneman, D., and S. Frederick. 2005. In *The Cambridge handbook of thinking and reasoning*, ed. K. Holyoak and R. Morrison. New York: Cambridge University Press.
- Lampel, J., and Z. Shapira. 2001. Judgmental errors, interactive norms and the difficulty of detecting strategic surprises. *Organization Science* 12: 599–611.
- Mintzberg, H. 1973. *The nature of managerial work*. New York: Harper & Row.
- Schwenk, C. 1984. Cognitive simplification processes in strategic decision-making. *Strategic Management Journal* 5: 111–128.
- Shapira, Z., and Shaver, M. 2011. *Confounding changes in averages with marginal effects: Anchoring within strategic investment assessments*. Working paper, Carlson School, University of Minnesota.
- Shapira, Z., and I. Venezia. 2008. On the preference for full-coverage policies: Why do people buy too much insurance? *Journal of Economic Psychology* 29: 747–761.
- Simon, H. 1955. A behavioral model of rational choice. *Quarterly Journal of Economics* 69: 99–118.
- Slooman, S. 1996. The empirical case for two systems of reasoning. *Psychological Bulletin* 119: 3–22.
- Slovic, P., M. Finucane, E. Peters, and D. MacGregor. 2002. The affect heuristic. In *Heuristics and biases: The psychology of intuitive judgment*, ed. T. Gilovich, D. Griffith, and D. Kahneman. New York: Cambridge University Press.
- Stanovich, K., and R. West. 2002. Individual differences in reasoning: Implications for the rationality debate? In *Heuristics and biases: The psychology of intuitive judgment*, ed. T. Gilovich, D. Griffith, and D. Kahneman. New York: Cambridge University Press.
- Tversky, A., and D. Kahneman. 1971. The belief in the law of small numbers. *Psychological Bulletin* 76: 105–110.
- Tversky, A., and D. Kahneman. 1973. Availability: A heuristic for judging frequency and probability. *Cognitive Psychology* 5: 207–232.
- Tversky, A., and D. Kahneman. 1974. Judgment under uncertainty: Heuristics and biases. *Science* 185: 1124–1131.

Hindsight Bias, the

Dan Lovallo and Elif Ketencioglu
The University of Sydney, Faculty of Economics and Business, Sydney, NSW, Australia

Definition One of the common perception biases, the hindsight bias, refers to the tendency to overestimate the prior predictability of an event. After the event has occurred, people often believe that they knew the outcome before it actually happened and foresaw its inevitability.

In the first systematic study of hindsight bias, also referred as the ‘knew it all’ effect, Fischhoff and Beyth (1975) asked participants to assess the probability of outcomes for two scenarios. The results indicated that when the participants were told what had actually happened, they recalled their retrospective judgements as being more predictable than they had originally stated. Later studies showed that the hindsight bias is robust over a variety of contexts, including scientific experiments (Slovic and Fischhoff 1977), medical diagnosis (Arkes et al. 1982), medical malpractice (Arkes and Schipani 1994), juror ► [decision-making](#) (Casper et al. 1989), legal judgements (Kamin and Rachlinski 1995), sporting events (Christensen-Szalanski and Willham 1991) and presidential elections (Leary 1982).

According to Fischhoff (1982), people tend to view their retrospective judgement as being relatively inevitable before it happened. They also believe that others would anticipate the outcome much better than the actual facts. In the long run, this would distort individuals’ retrospective judgement and prevent them from learning from the past. A remedy commonly prescribed to reduce the hindsight bias is to require a decision maker to convince himself that an event ‘might have turned out otherwise’ (Fischhoff 1982). This recognition encourages the decision maker to question the validity of his reasoning and better understand the level of uncertainty involved. However, Sanna et al. (2002) showed that listing numerous counterfactual thoughts consistently increased the hindsight bias unless the decision maker attributed the difficulty of thought generation to his or her own lack of knowledge (Sanna and Schwarz 2003).

The magnitude of the hindsight bias has been found to differ among individuals (Campbell and Tesser 1983), and it is sensitive to task difficulty. It is also affected by individual subjective experiences (Sanna and Schwarz 2007). Furthermore, Blank and colleagues (2007) show in a political context that there are three distinct components of the hindsight bias: memory distortions, impressions of foreseeability and impressions of necessity. This study empirically shows that components of the hindsight bias may not be correlated with each

other, thus violating the theory of a unitary hindsight bias. Implications from this study are important in measuring and understanding hindsight bias in different contexts.

See Also

- ▶ [Decision-Making](#)
- ▶ [Heuristics and Biases and Strategic Decision-Making](#)

References

- Arkes, H.R., and C.A. Schipani. 1994. Medical malpractice v. the business judgement rule: Differences in hindsight bias. *Oregon Law Review* 587: 633–636.
- Arkes, H.R., R.L. Wortmann, P.D. Saviue, and A.R. Harkness. 1982. Hindsight bias among physicians weighing the likelihood of diagnoses. *Journal of Applied Psychology* 66: 252–254.
- Blank, H., S. Nestler, G. von Collani, and V. Fischer. 2007. How many hindsight biases are there? *Cognition* 106: 1408–1440.
- Campbell, J.D., and A. Tesser. 1983. Motivational interpretations of hindsight bias: An individual difference analysis. *Journal of Personality* 51: 605–620.
- Casper, J., K. Benedict, and J.L. Perry. 1989. Juror decision making, attitudes and the hindsight bias. *Law and Human Behavior* 13: 291–310.
- Christensen-Szalanski, J.J.J., and C.F. Willham. 1991. The hindsight bias: A meta-analysis. *Organizational Behavior and Human Decision Processes* 48: 147–168.
- Fischhoff, B. 1982. Debiasing. In *Judgment under uncertainty: Heuristics and biases*, ed. D. Kahneman, P. Slovic, and A. Tversky. New York: Cambridge University Press.
- Fischhoff, B., and R. Beyth. 1975. ‘I knew it would happen’: Remembered probabilities of once-future things. *Organizational Behavior and Human Performance* 13: 1–16.
- Kamin, K.A., and J.J. Rachlinski. 1995. Ex post \neq ex ante: Determining liability in hindsight. *Law and Human Behavior* 19: 89–104.
- Leary, M.R. 1982. Hindsight distortion and the 1980 presidential election. *Personality and Social Psychology Bulletin* 8: 257–263.
- Sanna, L.J., and N. Schwarz. 2003. Debiasing the hindsight bias: The role of accessibility experiences and (mis)attributions. *Journal of Experimental Social Psychology* 39: 287–295.
- Sanna, L.J., and N. Schwarz. 2007. Metacognitive experiences and hindsight bias: It’s not just the thought (content) that counts! *Social Cognition* 25: 185–202.
- Sanna, L.J., N. Schwarz, and S.L. Stocker. 2002. When debiasing backfires: Accessible content and accessibility experiences in debiasing hindsight. *Journal of Experimental Psychology: Learning, Memory, and Cognition* 28: 497–502.
- Slovic, P., and B. Fischhoff. 1977. On the psychology of experimental surprises. *Journal of Experimental Psychology: Human Perception and Performance* 3: 544–551.

Hitt, Michael A. (Born 1946)

David Sirmon

University of Washington, Seattle, WA, USA

Michael Hitt, born in Odessa, Texas, in 1946, earned his MBA from Texas Technical University in 1969. After working at the Samsonite Corporation, he enrolled at the University of Colorado, where he earned his Ph.D., with an emphasis in organizational theory and business policy, in 1974. His faculty career began at Oklahoma State University, where he advanced to associate professor (1977) and full professor (1982). He was the chairperson in the department of management at University of Texas, Arlington (1983–1985), and Texas A&M University (1985–1989). He was designated a distinguished professor at Texas A&M (1999); after 3 years at Arizona State University, he returned to Texas A&M (2003–present).

Among the first generation of those conducting scholarly research in strategic management, a sub-field of management, Hitt has not only become one of its most influential researchers, he is among the most influential scholars in the whole of management studies. Making him unique among his peers of world-class scholars, Hitt’s influence is not constrained to a single phenomena or theory; indeed, his wide-ranging work has helped redirect several streams of research. For instance, in 2010 *Times Higher Education* rated Hitt one of the top scholars in economics, finance and management (tied for first among management scholars) with the largest number of highly cited articles. Interestingly, across separate research streams,

including resource-based logic, ► [corporate strategy](#), corporate governance and entrepreneurship, Hitt's work displays an enduring interest in managerial behaviours. That is how managers' actions, manifested in designing and implementing strategies, affect firm-level outcomes.

Hitt's research has consistently advanced strategic management's resource-based related literatures. Among his earliest work in the *Academy of Management Journal* (1982) and *Strategic Management Journal* (1985), Hitt and colleagues contributed articles on 'distinctive competence', showing its relationship with firm performance, thereby providing support for the then fledgling ► [resource-based view](#). More recently, his work with colleagues related to orchestrating firm resources (2001a, 2007) is leading scholars to consider the role managers play in resource-based logic.

Next, a long series of scholarly papers published in the *Academy of Management Journal*, *Strategic Management Journal*, *Organization Science* and *Journal of Management* advanced our understanding of corporate-level strategy. For instance, in a series of scholarly contributions, Hitt and colleagues showed (1991, 1992, 1996, 1997, 2001, 2002, 2003a, b; Hitt and Kochhar 1998) how mergers and acquisitions, control systems, structure and managerial incentives affect investments in R&D and, subsequently, firm-level innovation. Furthermore, this series of studies enhanced our understanding of how product and international diversification interactively affect innovation and firm performance.

By integrating resource and corporate perspectives, Hitt also helped us to understand the role of resources in corporate-level strategy. For example, he offered an alternative to the logic of resource similarity driving merger and acquisition performance by emphasizing resource complementarity. Likewise, his work showed us how international alliance partner selection is based largely on the desire to access complementary resources.

In terms of corporate governance, Hitt's work informed us about the role of boards, institutional ownership and market for corporate control in

terms of restructuring, innovation, international diversification as well as competitive actions.

Hitt's ongoing interest in innovation influenced his recent examination (2001b, 2003a) of entrepreneurship-related questions. His vision to integrate strategy and entrepreneurship has led to the development of an area of study known as strategic entrepreneurship. Through his editorial leadership of special issues for the *Strategic Management Journal*, *Academy of Management Executive*, and various books, this stream is growing rapidly. In fact, Hitt, along with Dan Schendel, founding editor of the *Strategic Management Journal*, co-founded *SMJ*'s sister publication, the *Strategic Entrepreneurship Journal*.

Hitt remains an active scholar. He is now examining family business firms and the effects of institutions and their boundary conditions on organizational performance.

Beyond scholarly research, Hitt's legacy includes his extensive contributions through service and teaching. His editorial contributions, for example, demonstrate remarkable breadth and depth. He has served as an editorial review board member for more than 25 leading journals. More impressively, Hitt completed terms as editor of the *Academy of Management Journal* (1991–1993) and as co-founding editor of the *Strategic Entrepreneurship Journal* (2006–2010). He also served as President of the Academy of Management (1996–1997) and of the Strategic Management Society (2006–2008). His teaching has influenced students at all levels. His authorship of several market-leading textbooks effectively disseminates research insights to numerous students. However, his most passionate teaching efforts are aimed at Ph.D. students. To date, Hitt has chaired or co-chaired over 25 dissertations. The value of his portfolio of scholarly teaching accomplishments was formally recognized in 2001 when he received the Irwin Outstanding Educator Award from the Academy of Management.

See Also

- [Corporate Strategy](#)
- [Resource-Based View](#)

Selected Works

- Hitt, M.A., and R. Duane Ireland. 1985. Corporate distinctive competence, strategy, industry and performance. *Strategic Management Journal* 6:273–293.
- Hitt, M.A., and R. Kochhar. 1998. Linking corporate strategy to capital structure: Diversification strategy, type and source of financing. *Strategic Management Journal* 19:601–610.
- Hitt, M.A., R. Duane Ireland, and K.A. Palia. 1982. Industrial firms' grand strategy and functional importance: Moderating effects of technology and uncertainty. *Academy of Management Journal* 25:265–298.
- Hitt, M.A., J.S. Harrison, R.E. Hoskisson, and R.D. Ireland. 1991. Synergies and post acquisition performance: similarities versus differences in resource allocations. *Journal of Management* 17:173–190.
- Hitt, M.A., C.W.L. Hill, and R.E. Hoskisson. 1992. Cooperative versus competitive structures in related and unrelated diversified firms. *Organization Science* 3:501–521.
- Hitt, M.A., R.E. Hoskisson, R.A. Johnson, and D.D. Moesel. 1996. The market for corporate control and firm innovation. *Academy of Management Journal* 39:1084–1119.
- Hitt, M.A., R.E. Hoskisson, and H. Kim. 1997. International diversification: Effects on innovation and firm performance in product diversified firms. *Academy of Management Journal* 40:767–798.
- Hitt, M.A., L. Bierman, K. Shimizu, and R. Kochhar. 2001a. Direct and moderating effects of human capital on strategy and performance in professional service firms: A resource-based perspective. *Academy of Management Journal* 44:13–28.
- Hitt, M.A., R.D. Ireland, S.M. Camp, and D.L. Sexton. 2001b. Strategic entrepreneurship: Entrepreneurial strategies for creating wealth. *Strategic Management Journal* 22 (special issue):479–491.
- Hitt, M.A., R.E. Hoskisson, R.A. Johnson, and W. Grossman. 2002. Conflicting voices: The effects of institutional ownership heterogeneity and internal governance on corporate innovation strategies. *Academy of Management Journal* 45:697–716.
- Hitt, M.A., R.D. Ireland, and D. Sirmon. 2003a. A model of strategic entrepreneurship: The construct and its dimensions. *Journal of Management* 29:963–989.
- Hitt, M.A., L. Tihanyi, R.E. Hoskisson, and R.A. Johnson. 2003b. Institutional ownership differences and international diversification: The effects of board of directors and technological opportunity. *Academy of Management Journal* 46:195–211.
- Hitt, M.A., L. Bierman, K. Uhlenbruck, and K. Shimizu. 2006. The importance of resources in the internationalization of professional service firms: The good, the bad and the ugly. *Academy of Management Journal* 49:1137–1157.
- Hitt, M.A., D.G. Sirmon, and R.D. Ireland. 2007. Managing firm resources in dynamic environments to create value: Looking inside the black box. *Academy of Management Review* 32:273–292.

Hold-Up

Scott E. Masten

University of Michigan, Ross School of Business,
Ann Arbor, MI, USA

Abstract

A hold-up occurs when one transactor takes advantage of another's lack of comparably valued alternatives to insist on more favourable terms of trade. Opportunities for hold-ups commonly arise where transactions require relationship-specific investments. The potential for a hold-up reduces the efficiency of exchange by causing underinvestment or because efforts to appropriate and protect ► [quasi-rents](#) through bargaining and other rent seeking activities dissipate gains from trade. Avoiding or reducing the potential for hold-up is an often-cited motive for contracting and vertical integration.

Definition An attempt by one party to a transaction to appropriate or redistribute the gains accruing to the transaction by taking advantage of another party's lack of comparably valued alternatives.

Like its felonious counterpart, an economic hold-up consists of a demand to redistribute wealth backed up by a threat, the difference being that, in the economic version, the victim's vulnerability to the perpetrator's demands arises from the transaction itself rather than from a threat of violence. Specifically, a hold-up occurs when one transactor takes advantage of another's lack of comparably valued alternatives to insist on more favourable terms of trade. Hold-up opportunities arise, most commonly, in transactions requiring relationship-specific investments, assets that are specially designed or located for a particular user and consequently have a discretely lower value in their next best application (Williamson 1971, 1975; Klein et al. 1978). Classic examples are manufacture-specific tools and dies used in the production of cars (Klein 1988; Monteverde and Teece 1982a, b)

and the design and location of coal-powered electric generators to use coal from a specific mine (Joskow 1985, 1987). Once the die is cast, only imperfect market alternatives exist, and the buyer and seller become effectively locked into a bilateral monopoly relationship. The terms of trade then become a matter of bargaining, the outcome of which depends on the transactors' next best alternatives (or outside options) and their relative bargaining power.

Hold-ups are a concern in business settings for two reasons. First, anticipation that all or part of the value of relationship-specific investments will be appropriated by one's trading partner may cause transactors to underinvest in specific assets, to use less valuable non-specific designs (or locations), or to forgo trading opportunities altogether. Second, hold-ups may be costly in and of themselves even if investments are made optimally. Attempts to hold up will inevitably be resisted, and the parties can be expected to deploy many of the tactics commonly associated with bargaining in their efforts to acquire a larger share of the ► **quasi-rent** accruing to the exchange. Such tactics range from simple haggling to protracted, full-scale negotiations and may entail considerable outlays of time and energy as well as costly demonstrations of bargaining power in the form of strikes or production interruptions. In the process of contesting the distribution of quasi-rents some portion of the available surpluses is inevitably dissipated. The larger the quasi-rents at stake, the greater the incentive to undertake efforts to acquire those rents, and the greater the expected costs of a hold-up.

Responses to Hold-Up

The potential for hold-ups provides a rationale for contracting and vertical integration. To the extent that relationship-specific investments are verifiable by a court, contracting allows the parties to address the problem of underinvestment associated with the *ex post* division of quasi-rents by specifying the efficient level of investment along with any necessary transfers in the contract. Even when investments are non-verifiable, appropriately designed contracts may yield efficient investment under

some circumstances (for recent discussions, see Wickelgren 2007; Stremitzer 2010). Contracting also reduces the costs associated with hold-ups by restricting the set of tactics transactors can employ in the pursuit of rents: Among other things, the legal system impedes the ability of parties to a contract to extort concessions through unilateral refusals to perform by assessing damages or other remedies for breach. By writing long-term contracts covering multiple periods, transactors avoid the need for costly period-by-period bargaining.

Where contracting is too costly or ineffective, transactors may seek to eliminate or reduce hold-up problems by integrating transactions within a firm. In the case of physical assets, integration is achieved through the ownership of assets. In the property rights (or incomplete contract) theory associated with the formal models of Grossman and Hart (1986) and Hart and Moore (1990, among others), ownership confers residual rights of control over the use and disposition of assets; by affording one party the ability to deny use of an asset to another, ownership alters the transactors' outside options and, thereby, their respective marginal returns on non-contractible investments. Ownership in the Grossman–Hart–Moore framework does not eliminate hold-up, understood as (costless) bargaining over *ex post* quasi-rents, but, through its effects on investment incentives, can be used to mitigate the 'malinvestment' consequences of hold-ups. In the transaction cost literature, by contrast, the integration of physical capital prevents hold-ups by, in effect, eliminating the appropriable quasi-rents that are the object of hold-up attempts. In addition, transaction cost economists have argued that the integration of production may reduce hold-ups in transactions involving relationship-specific human capital by altering the incentives of employees (see, e.g., Klein 1988; Masten 1988; Williamson 1991). (For a comparison of the property rights and transaction cost theories of hold-up and integration, see Whinston 2003.)

Other Sources of Hold-Up

Although relationship-specific investment is the most common source of hold-ups, hold-up

opportunities may also occur for other reasons. The threat of a hold-up may arise, or be exacerbated, for example, where the timing of performance is important. In such settings, a hold-up (delay) can be a tactic for effecting a hold-up (redistribution) – even if none of the assets required for performance are specific under the preceding definitions – because of the difficulty of arranging substitute performance on short notice (see Masten et al. 1991; Pirrong 1993). Such ‘temporal specificity’ may arise because a product’s value is inherently time-dependent, as is the case with newspapers (Klein et al. 1978: 301), because of the serial nature of production, as in construction projects (Masten et al. 1991), or because the product is perishable, as in the case of agricultural commodities (e.g., Koss 1999; Masten 2000).

Contracts can also be a source of, as well as a response to, hold-up. Exclusive dealing contracts, for instance, may transform otherwise general assets into relationship-specific ones (see Gallick 1996; Klein 1996). More broadly, because contracts are incomplete and costly to enforce, contracts invite hold-ups when events result in one party being outside the contract’s ‘self-enforcement range’ (Klein 1996). Although the contract prevents unilateral refusals to perform or changes in the terms of trade, a party who becomes dissatisfied with the contract’s terms can employ a variety of tactics in an attempt to try to contrive cancellation, evade performance or force a renegotiation. Such tactics may include, among others, capitalizing on ambiguous terms, suing for trivial deviations, making false claims of dissatisfaction, withholding relevant information, interfering with or failing to cooperate in the other party’s performance, and failing to mitigate damages where a breach has occurred (see, e.g., Goetz and Scott 1983; Goldberg 1985). Insisting that the terms of the contract be fulfilled can at times be an effective strategy for bringing about a renegotiation: when, as often happens over the course of a long-term relationship, changing circumstances require performance adjustments, one party may refuse to permit such adjustments – possibly

imposing substantial costs on the other – unless modifications are accompanied by a new, more favourable distribution of rents. Both the gains forgone from failing to make meritorious adjustments and the costs of haggling over transfers accompanying adjustments reduce the value of the transaction (Williamson 1985: 178).

Related Concepts

Although the term *hold-up* was introduced to the economics literature by Goldberg (1976), the behaviour it describes is closely associated, and sometimes used interchangeably, with the term ► **opportunism** (Williamson 1971, 1975; cf. Klein et al. 1978: 302). Hold-up is also closely related to the concept of rent seeking (cf. Gibbons 2005). Hold-up behaviour should be distinguished from moral hazard, however. Whereas moral hazard represents a deviation from joint-surplus maximizing behaviour in response to incentives within an agreement, resulting in a de facto redistribution of gains from trade, hold-up involves actions taken to exact more favourable terms of trade at the outset or to force a renegotiation and, thus, a de jure modification of previously agreed upon terms. Unlike moral hazard, which yields direct benefits to the actor, a hold-up is typically costly to the initiator, as well as his target, and is therefore profitable to engage in only if it succeeds in making the status quo so disagreeable that a trading partner finds it less onerous to accede to than to resist the hold-up.

Evidence

Evidence for the importance of hold-ups exists in both case studies and econometric analyses. For the most part, the econometric evidence of hold-ups is indirect in the sense that it does not measure the activity or cost of hold-ups directly but rather shows, for example, that contract duration is longer or that vertical integration is more likely in the presence of relationship-specific investments

(see Shelanski and Klein 1995; Lafontaine and Slade 2007, for reviews). Cutler and Summers (1988) do, however, provide a sense of the magnitude of the potential costs associated with contention over fixed sums, estimating that the combined value of Texaco and Penzoil dropped by approximately \$3.4 billion, or about 32% of their pre-litigation value, in the period preceding settlement of their \$11 billion legal dispute over the acquisition of Getty Oil. Of this amount, approximately \$2.3 billion in joint value was recovered on settlement of the dispute, implying a loss of over \$1 billion, or about 10% of the amount at stake, over the 4-year litigation period.

The meaning and existence of hold-up was also at the centre of an extended debate over the reasons for General Motors' integration of Fisher Body in the 1920s, which, as first described by Klein et al. (1978) and elaborated on by Klein (1988, 2000, 2007), had become a classic illustration of the potential hold-up problems created by relationship-specific investments. Beginning in 1919, Fisher Body began a large capacity expansion to produce car bodies for General Motors, for which, consistent with the hold-up theory, General Motors offered a long-term (10-year) exclusive dealing purchase commitment. Subsequently, an unexpectedly large increase in the demand for bodies resulted in a windfall gain for Fisher Body under the contract's cost-plus pricing formula. Ensuing frictions between General Motors and Fisher Body over the location of Fisher Body plants were ultimately resolved with General Motors' integration of Fisher in 1926. This account has been disputed, however, most notably by Ronald Coase (2000, 2006; see also Casadesus-Masanell and Spulber 2000, and Freeland 2000), who has long questioned the importance of specific investments and hold-up as determinants of the boundaries of the firm.

See Also

- ▶ [Incomplete Contracts](#)
- ▶ [Opportunism](#)

- ▶ [Quasi-Rent](#)
- ▶ [Transaction Cost Economics](#)

References

- Casadesus-Masanell, R., and D.F. Spulber. 2000. The fable of fisher body. *Journal of Law and Economics* 43: 67–104.
- Coase, R.H. 2000. The acquisition of fisher body by general motors. *Journal of Law and Economics* 43: 5–31.
- Coase, R.H. 2006. The conduct of economics: The example of fisher body and general motors. *Journal of Economics and Management Strategy* 15: 255–278.
- Cutler, D.M., and L.H. Summers. 1988. The costs of conflict resolution and financial distress: Evidence from the Texaco–Penzoil litigation. *RAND Journal of Economics* 19: 157–172.
- Freeland, R.F. 2000. Creating hold-up through vertical integration: Fisher body revisited. *Journal of Law and Economics* 43: 33–66.
- Gallick, E.C. 1996. Exclusive dealing and vertical integration: The efficiency of contracts in the tuna industry. In *Case studies in contracting and organization*, ed. S.E. Masten. New York: Oxford University Press.
- Gibbons, R. 2005. Four formal(izable) theories of the firm? *Journal of Economic Behavior and Organization* 58: 200–245.
- Goetz, C.J., and R.E. Scott. 1983. The mitigation principle: Toward a general theory of contractual obligation. *Virginia Law Review* 69: 967–1024.
- Goldberg, V.P. 1976. Regulation and administered contracts. *Bell Journal of Economics* 7: 426–448.
- Goldberg, V.P. 1985. Price adjustment in long-term contracts. *Wisconsin Law Review* 527–543.
- Grossman, S., and O. Hart. 1986. The costs and benefits of ownership: A theory of lateral and vertical integration. *Journal of Political Economy* 94: 691–719.
- Hart, O., and J. Moore. 1990. Property rights and the nature of the firm. *Journal of Political Economy* 98: 1119–1158.
- Joskow, P. 1985. Vertical integration and long-term contracts: The case of coal burning electric generating plants. *Journal of Law, Economics, and Organization* 1: 33–80.
- Joskow, P. 1987. Contract duration and relationship-specific investments: Empirical evidence from coal markets. *American Economic Review* 77: 168–185.
- Klein, B. 1988. Vertical integration as organizational ownership: The fisher body–general Motors relationship revisited. *Journal of Law, Economics, and Organization* 4: 199–213.
- Klein, B. 1996. Why hold-ups occur: The self-enforcing range of contractual relationships. *Economic Inquiry* 34: 444–463.

- Klein, B. 2000. Fisher–general motors and the nature of the firm. *Journal of Law and Economics* 43: 105–141.
- Klein, B. 2007. The economic lessons of fisher body–general motors. *International Journal of the Economics of Business* 14: 1–36.
- Klein, B., R. Crawford, and A. Alchian. 1978. Vertical integration, appropriable rents and the competitive contracting process. *Journal of Law and Economics* 21: 297–326.
- Koss, P. 1999. Self-enforcing transactions: Reciprocal exposure in fisheries. *Journal of Law, Economics, and Organization* 15: 737–749.
- Lafontaine, F., and M. Slade. 2007. Vertical integration and firm boundaries: The evidence. *Journal of Economic Literature* 45: 629–685.
- Masten, S.E. 1988. A legal basis for the firm. *Journal of Law, Economics, and Organization* 4: 181–198.
- Masten, S.E. 2000. Transaction-cost economics and the organization of agricultural transactions. In *Advances in applied microeconomics: Industrial organization*, ed. Baye Michael. New York: Elsevier Science.
- Masten, S.E., J.W. Meehan, and E.A. Snyder. 1991. The costs of organization. *Journal of Law, Economics, and Organization* 7: 1–25.
- Monteverde, K., and D.J. Teece. 1982a. Switching costs and vertical integration in the automobile industry. *Bell Journal of Economics* 13: 206–213.
- Monteverde, K., and D.J. Teece. 1982b. Appropriable rents and quasi-vertical integration. *Journal of Law and Economics* 25: 321–328.
- Pirrong, S.C. 1993. Contracting practices in bulk shipping markets: A transaction cost perspective. *Journal of Law and Economics* 36: 937–976.
- Shelanski, H., and P. Klein. 1995. Empirical research in transaction-cost economics: A review and assessment. *Journal of Law, Economics, and Organization* 11: 335–361.
- Stremitzter, A. 2010. Standard breach remedies, quality thresholds, and cooperative investments. *Journal of Law, Economics, and Organization*. doi:10.1093/jleo/ewq007.
- Whinston, M. 2003. On the transaction cost determinants of vertical integration. *Journal of Law, Economics, and Organization* 19: 1–23.
- Wickelgren, A.L. 2007. The limitations of buyer-option contracts in solving the hold-up problem. *Journal of Law, Economics, and Organization* 23: 127–140.
- Williamson, O.E. 1971. The vertical integration of production: Market failure considerations. *American Economic Review* 61: 112–123.
- Williamson, O.E. 1975. *Markets and hierarchies: Analysis and antitrust implications*. New York: Free Press.
- Williamson, O.E. 1985. *The economic institutions of capitalism*. New York: Free Press.
- Williamson, O.E. 1991. Comparative economic organization: The analysis of discrete structural alternatives. *Administrative Science Quarterly* 36: 269–296.

Home–Host Country

Grazia Ietto-Gillies

London South Bank University, London, UK

Abstract

This article discusses the following: home and host countries in relation to developed and developed countries and to the location of outward and inward ► [foreign direct investment \(FDI\)](#); the relationship between the geographical pattern of location and the sectoral pattern in the growth of FDI; countries as home and host to FDI: ► [regional developments](#); and the economic and social ties between home and host countries to which FDI may contribute.

Definition The home country is where a company is legally registered and has its legal residence. It also denotes the country whose government has jurisdiction over the company on legal matters. The host country is the foreign (non-home) country in which a multinational company locates its foreign direct investment.

The *home* and *host country* terminology is used in relation to multinational companies (MNCs). The *home country* is the one where the company is legally registered and has its legal residence. It also denotes the country whose government has jurisdiction over the company on legal matters (OECD 2008; UNCTAD 2009).

The *host country* is the foreign (non-home) country in which the MNC locates its ► [foreign direct investment \(FDI\)](#). Most large MNCs invest in several host countries.

The home country is, usually, also the one where the company has its main headquarters. Most companies are registered in one country only; this tends to be the country where the company originally started its activities and where it has its corporate headquarters. However, a few MNCs are registered in two countries. Again, the history of the company plays a role in this issue.

The double registration/residence is usually the outcome of a merger in the history of the company: a merger of two companies located in different countries. Unilever is a company registered in both the Netherlands and the UK. These are also the countries where Royal Dutch Shell PLC had its double registration for many years. In 2004, it decided to elect the UK as its country of registration, though its headquarters have remained in the Netherlands.

MNCs conduct business activities in their home country as well as abroad. The activity that defines them as multinationals is their FDI and the setting up of affiliates in foreign countries, that is, countries other than their home country. While the expressions home and host country take a company's perspective, the expressions inward and outward FDI tend to be used from the perspective of countries.

For most decades of the twentieth century, the home country of MNCs tended to be a developed country. The last two decades have seen changes in this pattern, as a number of companies from developing countries are investing abroad and thus becoming MNCs. In the early 1990s, 91.5% of the world's 36,600 MNCs had a developed country as their home. In 2010 the corresponding percentage was 70.5, while the total number of world's MNCs had risen to 103,786. The main developing countries whose companies are increasingly involved in outward foreign direct investment are China, Brazil, India, South Africa, South Korea and Turkey, as well as some Eastern European countries.

The pattern of location of MNCs is mirrored by the location of outward foreign direct investment during the same decades. The stock of inward FDI shows an interesting geographical evolution in the home–host country pattern. Between the two world wars, most FDI originated from MNCs whose home was a developed country and was directed towards the developing countries. Estimates give the share of the stock of inward FDI into developing countries at almost 63% in 1914 and 66% in 1938. However, after the Second World War, the share of stock of FDI

directed towards the non-developed countries (developing and transition economies) fell to 32.3% in 1960, reaching 24.5% in 1980, 25.2% in 1990, and 23.2% and 19.5 in 2000 and 2011 respectively (see Dunning 1983: Table 5.2 for 1914, 1938 and 1960 data. The other data comes from various issues of UNCTAD *World Investment Report*, 1991, 2001, 2012).

This geographical pattern is connected with the sectoral pattern of MNCs' activities in host countries in the following way. Between the two world wars, most FDI was in the primary sector; it was resource-seeking and aiming at securing raw materials in developing countries by MNCs from developed countries. After the Second World War, the total amount of FDI in host countries progressed steadily and considerably. There was increasing activity in the manufacturing sector and FDI was to a large extent market-seeking. This made investment in the developed countries more appealing: they became sought-after host countries. The last few decades have seen considerable increase in FDI in services, and both developed and developing countries are now hosts to this type of FDI.

In terms of home–host countries' relationships, two further patterns have emerged through the decades. While in the pre-First World War decades we could easily identify the home country as a developed economy, the identification has become progressively more uncertain since then. The decades after the Second World War saw an increasing number of developed countries being both home and host countries, as FDI originated from this group of countries but was also increasingly directed towards them. The first decade of the twenty-first century is witnessing similar developments in relation to some developing countries: they are not only recipients of inward FDI but also originators of outward FDI directed to both developed and developing countries. In other words, they are following the same pattern as several developed countries have done for many years: they are becoming both host countries for foreign MNCs and home countries for their own MNCs. The FDI of MNCs from

developing countries into developed ones is a very recent phenomenon, and tends to follow the acquisition modality.

The home–host country relationship generates close economic, social and political bonds between the countries. The home country depends on foreign countries for investment opportunities and related profits. The host country depends on inward investment for the generation of productive capacity and, in the case of developing countries, for development. Whether these aims are realized partly depends on the modality of FDI (greenfield versus M&As), the type of inward investment and the synergies with the local economy. The home–host country relationship includes the possible spread of technological and organizational knowledge. The intensity and direction of knowledge diffusion partly depends on the absorptive capacity of the countries involved (see Ietto-Gillies 2012: 196–202).

See Also

- ▶ [Absorptive Capacity](#)
- ▶ [Acquisition Strategy](#)
- ▶ [Foreign Direct Investment \(FDI\)](#)
- ▶ [Foreign Direct Investment \(FDI\) and Economic Development](#)
- ▶ [Innovation](#)
- ▶ [International Business](#)
- ▶ [Multinational Corporations](#)
- ▶ [Regional Development](#)

References

- Dunning, J.H. 1983. Changes in the level and growth of international production: The last 100 years. In *The growth of international business*, ed. M. Casson. London: Allen & Unwin.
- Ietto-Gillies, G. 2012. *Transnational corporations and international production: Concepts, theories and effects*, 2nd ed. Cheltenham: Edward Elgar.
- OECD (Organisation for Economic Co-operation and Development). 2008. *Benchmark definition of foreign direct investment*, 4th ed. Paris: OECD.
- UNCTAD (United Nations Conference on Trade and Development). 1991. *World investment report*. Geneva: UNCTAD.
- UNCTAD (United Nations Conference on Trade and Development). 2001. *World investment report*. Geneva: UNCTAD.
- UNCTAD (United Nations Conference on Trade and Development). 2009. *UNCTAD training manual on statistics for FDI and the operations of TNCs*, Flows and Stocks, vol. I. Geneva: UNCTAD.
- UNCTAD (United Nations Conference on Trade and Development). 2012. *World investment report*. Geneva: UNCTAD.

Hotelling's Law

David B. Ridley
Duke University, Fuqua School of Business,
Durham, NC, USA

Definition According to a seminal paper by Harold Hotelling (1929), the most profitable location is next to a competitor in the middle of a geographic or product space.

According to Hotelling's Law, there is an 'undue tendency for competitors to imitate each other in quality of goods, in location, and in other essential ways' (Hotelling 1929: 41). The law is named after Harold Hotelling (1895–1973) who described the idea in an *Economics Journal* article, 'Stability in competition' (1929). Hotelling's Law is also referred to as the principle of minimum differentiation or Hotelling's linear city model.

Hotelling's Law explains why retailers and restaurants so often locate near one another. The classic example is ice-cream vendors locating near one another on a beach.

Not only are business locations minimally differentiated, but so too are products and politicians. In two-party elections, 'each party strives to make its platform as much like the other's as possible' (Hotelling 1929: 54).

At the time Hotelling introduced his model, the prevailing economic thought was that oligopoly

was fragile, because a small price cut by one firm would capture the entire market. However, this thought was inconsistent with reality, according to Hotelling, because 'some buy from one seller, some from another, in spite of moderate differences of price' (Hotelling 1929: 41).

Hotelling modelled the way in which firms share the market. He used a simple model in which consumers are evenly dispersed along a line and buy from the nearest firm. The two firms choose to locate at the mid-point of the line. A firm that unilaterally moves away from the mid-point loses market share and profit.

Later, Chamberlin (1933) showed that there is no equilibrium when a third firm is added to the market. If there are three firms clustered at the mid-point, the firm in the middle has an incentive to move away. The basic Hotelling model also fails to account for strategic pricing. D'Aspremont et al. (1979) showed that when firms choose both price and location, firms move apart to decrease price competition.

Hotelling's model has been enhanced by the inclusion of price competition. While price competition intensifies when firms co-locate, the intensity can be diminished by differentiation of product characteristics (Picone et al. 2009). In fact, it might be sufficient to differentiate in only one dimension of product space. New hotels often differentiate from incumbents in terms of size (Baum and Haveman 1997).

While, in Hotelling's model, firms co-locate to attract consumers who travel to the nearest firm, other explanations for co-location emphasize spillovers and other factors. On the supply side, firms colocate to decrease labour and other input costs (Marshall 1920), learn from other firms how to improve productivity (Shaver and Flyer 2000), learn about demand from other firms (Ridley 2008), and because spinoffs sometimes locate near parent firms. On the demand side, firms co-locate to attract consumers searching for optimal product characteristics, to provide a credible commitment to low prices, to locate near consumers attracted by the marketing or reputation of competitors, to confer legitimacy (Deephouse

1999), and because consumers are concentrated. For a literature review of agglomeration economies, see Rosenthal and Strange (2004).

Despite shortcomings of the original model, Hotelling's key insights endure. First, businesses tend to locate near rivals, despite price pressures. Second, because of product differentiation, price changes do not necessarily cause a large movement of consumers from one firm to another.

See Also

- ▶ [Clusters and Foreign Direct Investment \(FDI\)](#)

References

- Baum, J.A., and H.A. Haveman. 1997. Love thy neighbor? Differentiation and agglomeration in the Manhattan hotel industry, 1898–1990. *Administrative Science Quarterly* 42: 304–339.
- Chamberlin, E.H. 1933. *The theory of monopolistic competition: A re-orientation of the theory of value*. Cambridge, MA: Harvard University Press.
- D'Aspremont, C., J.J. Gabszewicz, and J.F. Thisse. 1979. On Hotelling's stability in competition. *Econometrica* 47: 1145–1150.
- Deephouse, D.L. 1999. To be different, or to be the same? It's a question (and theory) of strategic balance. *Strategic Management Journal* 20: 147–166.
- Hotelling, H. 1929. Stability in competition. *Economic Journal* 39: 41–57.
- Marshall, A. 1920. *Principles of economics*. London: Macmillan.
- Picone, G.A., D.B. Ridley, and P.A. Zandbergen. 2009. Distance decreases with differentiation: Strategic agglomeration by retailers. *International Journal of Industrial Organization* 27: 463–473.
- Ridley, D.B. 2008. Herding versus Hotelling: Market entry with costly information. *Journal of Economics and Management Strategy* 17: 607–631.
- Rosenthal, S.S., and W.C. Strange. 2004. Evidence on the nature and sources of agglomeration economies. In *Handbook of regional and urban economics*, vol. 4, ed. J.V. Henderson and J.F. Thisse. Amsterdam: Elsevier.
- Shaver, M.J., and F. Flyer. 2000. Agglomeration economies, firm heterogeneity, and foreign direct investment in the United States. *Strategic Management Journal* 21: 1175–1193.

Human Resources

Ingo Weller
Ludwig-Maximilians-Universität, Munich,
Germany

Abstract

Human resources and the management of human resources (HRM) are critical for the survival, performance and competitive advantage of firms. This entry adopts a strategic perspective about human resources and HRM. It makes a critical distinction between what people have (human capital, a firm resources) and how firms manage the resource (HRM, a firm capability). The value creation process through HRM is then discussed in the light of current approaches to human capital theory and strategic HRM. Finally, some methodological problems relating to the HRM–firm performance linkage are explained.

Definition Human resources are endowed with certain attributes, often termed human capital or KSAOs (that is, knowledge, skills, abilities, and other characteristics such as personality). Human resource management (HRM) concerns the organizational structures, policies and practices that influence organizational effectiveness through the management of people and their attributes. The aim of HRM is to provide business value. The combination of human resources and HRM is theorized to be at the core of firm performance and sustained competitive firm advantage.

Organizations depend on people's motivations to participate and to produce (March and Simon 1958). From a strategic perspective people are seen as human resources (or assets) which self-select and are selected into firms. Building upon Becker's (1962) seminal work, strategists assume that human resources are heterogeneous and endowed with different types and degrees of human capital. Human capital captures stocks of education, information and health that have been

accumulated both on and off the job (Becker 1962). Given that human resources are not randomly distributed across firms, the optimal matching of firms, workers and jobs is crucial in achieving a ► **competitive advantage**.

'Matching firms with workers would be an easy process if labor were a commodity like some other inputs. However, labor is probably the most heterogeneous of all inputs in production functions' (Lazear and Oyer 2013: 492). Because human resources are different, ► **value** creation through human resources also follows specific mechanisms. As Coff (1997: 375) mentions, 'firms cannot achieve a sustainable advantage from human assets unless they are able to cope with the associated management dilemmas. The most obvious problem is that the firm's assets walk out the door each day, leaving some question about whether they will return.' Becker (1962: 19) explained that 'Turnover becomes important when costs are imposed on workers or firms, which are precisely the effects of specific training.' In his classical model workers invest in general human capital, which has equal ► **value** in many firms and is traded in competitive markets. Because workers can realize the same rent in many firms, firms have no incentive to invest in this type of human capital. To the contrary, workers who acquire firm-specific human capital have no incentive to leave the firm because they will be less productive in other firms. Because both firms and workers have *ex post* benefits from specific training but no incentive to invest *ex ante*, firms and workers typically share both the investment and the rent, which means that some negotiating over investments and rents occurs (Lazear 2009).

Specificity is often viewed as a necessary condition for a competitive advantage (Amit and Schoemaker 1993). That is, in order to create above-average returns from human resources, joint specific investments are required. The result of such investments is a bilateral monopoly situation where the worker can realize monopoly rents from specific knowledge and where the firm has a monopsony position because no other firm will demand the firm-specific human capital at the same price. Recently, though, the notion of

firm-specific human capital has been challenged. Some authors have stressed that individuals possess portfolios of both general and specific human capital, and that the portfolio and its use by the firm determine its value (Campbell et al. 2012). Others have argued that human capital is never specific in the sense that no other firm can use it. Lazear (2009) has suggested that all human capital, is general. In this model, firms differ in their weighting of distinct human capital components. Individuals then invest in human capital components in which they have a comparative advantage; alternatively, they self-select into firms according to the given human capital weighting schemes. Gathmann and Schönberg (2010) have developed the view that human capital may be task-specific rather than firm-specific (see also Gibbons and Waldman 2004), which allows moves across occupations with similar task structures. Yamaguchi (2012) has delivered additional proof and evidence for such claims.

The proposed models assume that industries, occupations, firms or tasks require skills which individuals initially (at the time of labour market or organizational entry) possess; alternatively, they may invest in the skills *ex post* through learning on the job. The weighting schemes for certain skill uses are exogenously given (e.g., by the production technology). Thus, match quality is determined by: (1) two-sided selection decisions based on initial human capital endowments, and (2) *ex post* investment and moves on behalf of the worker. Specificity, in turn, occurs when selection or investments allow bilateral monopoly rents. This model setup is helpful in explaining mobility across firms and within occupations but leaves only little room for strategic HRM. This, in turn, is at odds with the insight that ‘Matching the right firms to the right workers (as well as matching workers to the most appropriate jobs within the firms) creates economic value of a magnitude that few other economic processes can’ (Lazear and Oyer 2013: 492). The internal labour markets view (Waldman 2013) provides an extension that may be useful for strategy scholars.

Human Resource Management

Human resource management (HRM) relates to the organizational structures, policies and practices that influence employee behaviour. Its goal is to provide business value through people management. Research in HRM is often distinguished into micro-, international and strategic approaches (Lengnick-Hall et al. 2009). Micro-HRM is concerned with individual-level issues such as the decisions to participate and to produce (March and Simon 1958). International HRM deals with people management in a cross-country environment. Weller and Gerhart (2012) consider the following questions: How much do countries differ in their use of HRM practices? To what degree do HRM practices fit certain countries and show a misfit in others, as evidenced by effectiveness outcomes? Are the relationships stable or do they change over time?

Strategic HRM centres on the value creation potential of people management. From a universalistic perspective, a general set of HRM practices, often termed ‘High Performance Work Practices’ (Huselid 1995; Becker and Gerhart 1996), is assumed, which each individually contribute to firm performance. The argument is that some HRM practices will enhance the performance of a firm, no matter under what conditions (competition, factor markets etc.) it operates. The contingency perspective takes a similar stance but assumes that HRM practices need to be aligned with the overall business strategy and the environment of the firm (external or vertical fit). The configurational approach argues that in addition to external fit, internal (or horizontal) fit also needs to be achieved. In this perspective, HRM practices need to be aligned to business and HRM strategies (external fit) and to be combined in ‘bundles’ (internal fit; Delery and Doty 1996). Coherent bundles of HRM practices raise and leverage synergies (e.g., internal career ladders combined with seniority wages). At the same time they have configurational properties (e.g., causal ambiguity; see below), which are difficult for competitors to imitate.

In the configurational approach the question of how to achieve a *sustained* competitive advantage is most prevalent (Barney 1991). It is assumed that under certain conditions it will be hard for competitors to copy particular human resources and HRM practices. Human resources and HRM are interpreted as socially complex because they operate through and create social structures (e.g., co-worker relations, organizational culture), are causally ambiguous (i.e., have cause-and-effect relations that are difficult to understand) and path-dependent (i.e., are idiosyncratically distributed because of past investments). Such imitation barriers may safeguard a competitive advantage. However, they also pose management dilemmas that need to be solved (Coff 1997).

A simple but powerful approximation of the value creation potential from people management is the product of human capital times HRM. In other words, human capital is made productive through the application of the ‘right’ HRM. Barney and Wright (1998) refer to this when they claim that the HRM department (‘big HR’) and individual agents (‘small hr’) need to be considered in combination. In the same vein the abilities–motivation–opportunities (AMO) framework (Appelbaum et al. 2000) posits that HRM enhances employee abilities (through selection and training), motivation (through incentives) and opportunities to perform (through job design). Individual attributes, then, are assumed to transform to macro-level outcomes, where HRM proximal (e.g., turnover rates, commitment, job satisfaction) and distal factors (e.g., market capitalization, or, more broadly, return on investment) are differentiated (Dyer and Reeves 1995).

Given that the matching of workers with jobs inside the firm has great potential for value creation, surprisingly little research has been conducted in this area. The internal labour markets view (Waldman 2013) appears to offer some promising ideas for future research. If the assumption of homogeneous within-firm labour demand is relaxed, one may think of large firms

(which are most often addressed by HRM theorists) as labour markets with distinct tasks, jobs, and occupational and industry settings. This means that matching human capital to tasks, jobs, occupations and industries is a crucial task for HRM. In this view, weighting schemes for human capital components will vary between and within firms, and human capital components may vary across time or be person-fixed (such as ability or personality traits), such that individuals will sometimes find it hard to rationally invest in human capital that is valued by the firm. Specificity and joint value creation therefore depend on worker investments and on horizontal (e.g., job rotation) and vertical (e.g., promotions) matching processes inside the firm.

Methodological Issues

Gerhart (2007) has summarized the empirical challenges of HRM research. Weller and Gerhart (2012) provide an overview for the international context. In both cases, two issues deserve attention: first, because HRM is multi-level, many empirical problems centre on some sort of nested data. Examples include individuals nested in firms nested in industries. The problem is that clustered data are not independent, and thus assumptions of the standard regression model are violated. Violations may result in increased type 1 error rates because the degrees of freedom differ within the data and standard errors may be biased downwards for higher-level variables.

Second, it is difficult to establish the causal link between HRM and firm performance. Since most field data are not randomly drawn from the population (i.e., ‘treatments’ like HRM practices are not randomly assigned), the HRM–performance relationship is subject to endogeneity concerns. Endogeneity may stem from various sources such as omitted variables, simultaneity or non-random measurement error. For example, Gerhart and colleagues (2000) reasoned that measurement error caused by low single-informant reliability would seriously bias the relationship

between HRM and performance outcomes. In a general sense, one promising avenue is the ‘insider econometrics’ approach (e.g., Ichniowski et al. 1997; Ichniowski and Shaw 2013). Here, time series data from several units of the same firm with sufficient variation in HRM practices over time are used. The approach avoids many of the problems of cross-sectional, single-level and multi-industry studies. However, the drawback is that results cannot be easily generalized. However, the approach is promising and should therefore be an important subject of future research.

See Also

- ▶ [Competitive Advantage](#)
- ▶ [Firm Resources](#)
- ▶ [Performance Measures](#)
- ▶ [Value](#)

References

- Amit, R., and P.J.H. Schoemaker. 1993. Strategic assets and organizational rent. *Strategic Management Journal* 14: 33–46.
- Appelbaum, E., T. Bailey, P. Berg, and A. Kalleberg. 2000. *Manufacturing advantage: Why high-performance work systems pay off*. Ithaca: Cornell University Press.
- Barney, J. 1991. Firm resources and sustained competitive advantage. *Journal of Management* 17: 99–120.
- Barney, J.B., and P.M. Wright. 1998. On becoming a strategic partner: The role of human resources in gaining competitive advantage. *Human Resource Management* 37: 31–46.
- Becker, G.S. 1962. Investment in human capital: A theoretical analysis. *Journal of Political Economy* 70: 9–49.
- Becker, B., and B. Gerhart. 1996. The impact of human resource management on organizational performance: Progress and prospects. *Academy of Management Journal* 39: 779–801.
- Campbell, B.A., R. Coff, and D. Kryscynski. 2012. Rethinking sustained competitive advantage from human capital. *Academy of Management Review* 37: 376–395.
- Coff, R.W. 1997. Human assets and management dilemmas: Coping with hazards on the road to resource-based theory. *Academy of Management Review* 22: 374–402.
- Delery, J.E., and D.H. Doty. 1996. Modes of theorizing in strategic human resource management: Test of universalistic, contingency, and configurational performance predictions. *Academy of Management Journal* 39: 802–835.
- Dyer, L., and T. Reeves. 1995. Human resource strategies and firm performance: What do we know and where do we need to go? *International Journal of Human Resource Management* 6: 656–670.
- Gathmann, C., and U. Schönberg. 2010. How general is human capital? A task-based approach. *Journal of Labor Economics* 28: 1–49.
- Gerhart, B. 2007. Modeling HRM and performance linkages. In *The Oxford handbook of human resource management*, ed. P.F. Boxall, J. Purcell, and P.M. Wright. Oxford: Oxford University Press.
- Gerhart, B., P.M. Wright, G.C. McMahan, and S.A. Snell. 2000. Measurement error in research on human resources and firm performance: How much error is there and how does it influence effect size estimates? *Personnel Psychology* 53: 803–834.
- Gibbons, R., and M. Waldman. 2004. Task-specific human capital. *American Economic Review* 94: 203–207.
- Huselid, M.A. 1995. The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal* 38: 635–672.
- Ichniowski, C., and K. Shaw. 2013. Insider econometrics: Empirical studies of how management matters. In *The handbook of organizational economics*, ed. R. Gibbons and J. Roberts. Princeton: Princeton University Press.
- Ichniowski, C., K. Shaw, and G. Prennushi. 1997. The effects of human resource management practices on productivity: A study of steel finishing lines. *American Economic Review* 87: 291–313.
- Lazear, E.P. 2009. Firm-specific human capital: A skill-weights approach. *Journal of Political Economy* 117: 914–940.
- Lazear, E.P., and P. Oyer. 2013. Personnel economics. In *The handbook of organizational economics*, ed. R. Gibbons and J. Roberts. Princeton: Princeton University Press.
- Lengnick-Hall, M.L., C.A. Lengnick-Hall, L.S. Andrade, and B. Drake. 2009. Strategic human resource management: The evolution of the field. *Human Resource Management Review* 19: 64–85.
- March, J.G., and H.A. Simon. 1958. *Organizations*. New York: Wiley.
- Waldman, M. 2013. Theory and evidence in internal labor markets. In *The handbook of organizational economics*, ed. R. Gibbons and J. Roberts. Princeton: Princeton University Press.
- Weller, I., and B. Gerhart. 2012. Empirical research issues in comparative HRM. In *Handbook of research on comparative human resource management*, ed. C. Brewster and W. Mayrhofer. Cheltenham: Edward Elgar.
- Yamaguchi, S. 2012. Tasks and heterogeneous human capital. *Journal of Labor Economics* 30: 1–53.

Hymer, Stephen Herbert (1934–1974): The MNE and International Business

Christos N. Pitelis
Brunel University London, Uxbridge, UK

Abstract

We critically assess, build upon and extend the contribution of Stephen Hymer to the theory of the multinational enterprise (MNE) and ► [international business](#) (IB) scholarship.

We claim that Hymer was able to raise questions of fundamental importance, provide answers and proceed to predictions, mostly of superior insight. We also discuss a number of limitations of his work and conclude that despite these limitations Hymer had a powerful framework and a sharp analytical mind that allowed him to become the pioneer and indeed the father figure of the theory of the MNE, FDI and IB scholarship.

We claim that Hymer's contribution was path-breaking and was built upon a solid conceptual framework. On the basis of this framework, Hymer was able to raise questions of fundamental importance, provide answers and proceed to predictions, mostly of superior insight. Hymer was not the first to write on, or about, MNEs. Contributions by, for example, Dunning (1958) and Penrose (1956), predated Hymer. Buckley (2010) provides an extensive account of pre-Hymer contributions. However, unlike earlier scholars, Hymer posed the fundamental question of why firms choose foreign direct investment (FDI) versus alternative modalities of cross-border operations such as, for example, licensing, tacit collusion, strategic alliances and the like. This is, of course, the famous Coasean question, about why firms exist, applied to the case of FDI and the MNE. It is the question of why we should internalize activities rather than use the open market (internalize is a verb that Hymer used already in his 1960 thesis: see below). In this sense,

Hymer was the first 'internalization' scholar, in the case of the MNE. Neither Dunning (1958) nor Penrose (1956) had posed this question.

In his PhD thesis, completed in 1960 and published in 1976, Hymer distinguished between FDI and portfolio investment in terms of the higher degree of control conferred to the firm through FDI. The choice of FDI versus, for example, licensing, was explained in terms of 'reduction of conflict' in international markets, benefits from exploiting monopolistic advantages intra-firm rather than interfirm and 'risk diversification'. From the three reasons, Hymer felt the last to be the least important because it did not confer control.

As early as 1960 Hymer paid particular attention to the reasons why the exploitation of monopolistic advantages might be more profitable when done intra-firm, rather than inter-firm. These involved the absence of suitable licensees (in today's terms thin or absent markets), different (honest or dishonest) perceptions of the advantage (in today's terms 'opportunistic' and non-opportunistic perception of the advantage's value) and the possibility of post-contract bilateral oligopoly or monopoly problems (Hymer 1976: 12–29).

Following the emergence of the 'internalization' (due to transaction costs) perspective, notably by Buckley and Casson (1976) and Williamson (1981), there has been some controversy as to whether Hymer pre-dated 'internalization' or not. Kindleberger (2002), Hymer's PhD thesis supervisor, claimed that the new theories simply elaborate on ideas already in Hymer's thesis, while others have claimed that, in the thesis itself, Hymer focused on structural market failures at the expense of natural (transaction costs related) market failures (notably Dunning and Rugman 1985).

In his thesis Hymer posed the 'why internalize' question, in clear terms: 'The firm is a practical device which substitutes for the market. The firm internalizes or supersedes the market' (Hymer 1976: 48).

Despite this, transaction costs-type theorizing in the thesis was minimal, if any, so at the time Dunning and Rugman's (1985) claim was in essence accurate. The unearthing of Hymer's (1990) article (in French), where he explicitly

used Coase's transaction costs approach as extant theory of the firm, alongside more traditional oligopoly theory, led in turn to claims by Casson (1990), and Horaguchi and Toyne (1990), that Hymer clearly pre-dated transaction costs/internalization analysis. For Horaguchi and Toyne, 'the genesis of transaction costs as applied to the MNE can be traced to Hymer' (1990: 487).

This claim is now uncontroversial. In the 1968 paper, Hymer has explained both horizontal integration and vertical integration, along, explicitly, Coasean lines, predating Williamson-type arguments, to include much of the jargon (e.g., specific assets, dishonest [today's 'opportunistic'] licensees, etc.) – all these are detailed in Pitelis (2002), and Dunning and Pitelis (2008, 2010). Importantly, Hymer went further in the 1968 article, also explaining FDI in terms of the speed advantages on intra-firm transfer of knowledge – an argument reminiscent of Teece (1976, 1977, 2014) and Kogut and Zander's (1993) 'evolutionary theory of the MNE'.

In subsequent contributions, Hymer (1970, 1972) built upon and extended his earlier ideas to explain the 'macrocosm' (of international political economy, or, in his terms, 'multinational corporate capital') in terms of the 'micro-cosm' (of the MNE). In this context, Hymer:

1. Built on Chandler and Redlich (1961) to propose a 'law of increasing firm size'.
2. Proposed the 'law of uneven development' between developed and developing countries (his 'core' and 'hinterland').

For Hymer, the first 'law' would tend to eventually lead to global collusive oligopoly, while, through a 'correspondence' principle, MNEs would transplant their vertical power structures to the globe, creating a vertical division of power between 'superior and inferior' states, cities and peoples. This would engender conditions of dependent and uneven development. Hymer felt these to be unsatisfactory and went on to propose that 'central planning' would be preferable to private planning by the MNEs (Dunning and Pitelis 2010).

In addition to the above, Hymer (1970, 1972) considered the product lifecycle as a push factor

for diversification and internationalization of firms in mature industries, proposed an M-form hypothesis in similar terms to Oliver Williamson's (1981) subsequent analysis, and was first to predict externalization through subcontracting, at the time that he was observing internalization and growing hierarchies, already documented by Chandler (1962). He also predicted that internationalization of production would eventually lead to global capital markets and governance (Hymer 1979).

As noted, extensive accounts of Hymer's contribution can be found in Dunning and Pitelis (2008, 2010), and in various special issues of journals, for example *Contribution to Political Economy* (2002) and *International Business Review* (2006). Below we focus critically on few important aspects, notably his life and work, analytical framework, predictions and prescriptions.

Life and Work

Hymer was born in Canada in 1934, of Eastern European Jewish descent. His father ran a small family shop. During his short life – he died in a car crash in 1974 – he received a solid education in economics, completing his now famous thesis at the Massachusetts Institute of Technology under the supervision of Charles Kindleberger. At the time the MIT Press declined to publish the thesis as a book, despite Kindleberger's support, as it was not felt to be sufficiently analytical (the thesis is rather descriptive/empirical and it is often sloppy – which in part justifies the decision). When some virtues of the thesis were later realized (as being the first attempt to explain the MNE in terms of the theory of the firm and industrial organization, not just as portfolio investment), the MIT Press eventually published it in 1976.

In his early life Hymer was said to have felt like an alien in a land of big business and government, and considered Canada to be more of a colony, but less of a state, due to the influence of American MNEs. He thus came to emphasize the importance of finance as a social power (see Cohen et al. 1979; Pitelis 2002). He became an eminent figure during his lifetime, extensively visited developing and developed countries, and he was

consulted widely, especially by governments and international organizations.

He suffered some disappointments in his professional life: he failed to get tenure at Yale, for example, and, according to Kindleberger (1984), struggled to get his ideas published in top economics journals. Hymer was married with two sons and divorced in 1973.

The 1960s and 1970s were a period of radicalism, with many people turning to Marxism. Hymer's background, his chosen topic and his times made him a serious candidate to join the Marxist ranks, as indeed he did: in 1967 he openly declared he was a Marxist. He joined the editorial board of the *American Economic Review* in 1974, the year of his death.

At the time, a leading contribution in Marxist thinking was Baran and Sweezy's (1966) famous book *Monopoly Capital*. A main claim in chapter 1 was that modern large corporations were monopolizing markets, turning most modern industries into a variant of the neoclassical model of monopoly. Hymer had previously come to this very conclusion directly from the neoclassical route, namely Bain's (1956) (whom he cites in the thesis) industrial organization-type analysis. Indeed, Hymer in 1960 is already close to being the neoclassical variant of Baran and Sweezy's Marxism, so for Hymer the intellectual step was an easy one.

Hymer's Analytical Framework

Hymer's conceptual framework is simple yet powerful. For Hymer, firms pursue high profits. For products with high fixed costs, the more they sell the higher the profit margin – this is an incentive to grow (eventually to cross borders). There are constraints, however. Expanding abroad involves costs (the now famous costs of being foreign). In Hymer's view, to offset these costs firms need monopolistic advantages. These advantages of monopoly are derived from growing domestically. For Hymer, the M-form organization, retained profits and, eventually, multinationality per se are such monopolistic advantages Hymer (1970, 1972).

Through its control potential, FDI is a powerful means of cross-border expansion. First, because of the intra-firm transfer of advantages already discussed. Second, and importantly, because, through the removal of conflict, MNEs could capture value through establishing collusive oligopolistic conditions in foreign (and domestic) countries, but also through interpenetration of investments globally. This would lead to a global monopoly situation, a major source of inefficiency in capitalism and a reason to replace it with something more benign, in his view a form of central planning! Given that a benefit of FDI was control, if firms could retain control without internalizing, they could choose to externalize – to out-source, for example. This would shift the burden of production to subcontractors, while MNEs could maintain overall control, through, for instance, ownership control of intangibles, such as brand names, and bottleneck tangibles such as the Coca-Cola secret recipe and the colours of Benetton.

Providing insights into outsourcing as early as 1971 is quite an achievement.

Some Limitations

In his focus on 'value capture', Hymer ignored the issue of 'value creation'. For example, even if one accepts that global collusive oligopoly will be the outcome of MNE actions, an important question is how efficient was the process vis-à-vis alternatives. Teece (1981) criticized Hymer's 'monopoly power' interpretation of the MNE. Teece emphasized the efficiency attributes of the MNE as a superior technology transfer vehicle. If firms acquire advantages through efficiency, and can transfer some of these across borders, this is desirable for national and international welfare.

Hymer himself acknowledged the efficiency advantages of MNEs. He chose, however, to focus on the eventual disadvantages of the equilibrium state. Subsequent writers, such as Dunning (1988), renamed advantages as 'ownership', in recognition that they can be both monopoly- and efficiency-derived. Penrose (1995) went further in claiming that advantages are definitionally derived in the first instance from efficiency, as

they derive from a process of endogenous growth that results from knowledge and innovation within firms. She went on to claim that, in their attempt to capture value, firms could use ‘relatively impregnable bases’ as well as outright monopolistic practices. Thus, the final state could be inefficient. The potential inefficiency of any equilibrium state would call for suitable regulation by the state (Penrose 1995; Pitelis 2004).

The critiques above complement the idea that eventual collusive oligopoly equilibrium is by no means a foregone conclusion (see Dunning and Pitelis 2008). Moreover, Hymer’s position fails to account for the fact that firms create and extend markets through their proactive behaviour (another Penrosean concept which is missing from Hymer’s rather static analysis). Market extension/creation, and indeed co-creation (Pitelis and Teece 2010), makes ‘global collusive oligopoly’ more difficult to sustain.

Other limitations of Hymer’s analysis and predictions involve his neglecting the role of small firms, the possibility of proactive government regulatory policy in developed countries, the possibility of developmental states in developing countries and his prescription for central planning. Dunning and Pitelis (2010) discuss these extensively. When it comes to central planning in particular, this prescription does not clearly follow from Hymer’s framework; it seems instead to be a result of ‘wishful’ thinking, engendered by ideology.

Post-Hymer, we have seen the fall of central planning in most existing socialist countries. MNEs have gone on to develop more federated/hierarchical forms of internal organization – see, for example, Birkinshaw (1997) and Hedlund (1986) – and assist the process of economic growth of many countries. Some born-global firms have appeared. So has the concept of ‘meta-nationals’ (see Doz 2004) and global ‘alliance capitalism’ (Dunning 2005), and many developing countries have joined the club of the wealthy ones, especially in the Far East, and the BRICs (Brazil, Russia, India, China). FDI was concentrated in the developed countries in the 1980s, and more recently shifted to the developing world. FDI from emerging powers increased

dramatically as small firms and clusters have acquired prominence. Governments of developed countries have improved their ability to implement regulatory policies that contribute to innovation and wealth creation. These, as well as other shifts in the global landscape and related advancements in scholarly thinking, are of importance in assessing Hymer. This is beyond the scope of this entry (but see UNCTAD 2011, 2012, 2013). Instead, we focus here on selected issues of relevance to more recent debates.

Hymer’s external market opportunity/reduction of conflict (forces of competition)-based approach pre-dates Porter’s (1980) contribution to competitive strategy. Both suffer from a difficulty in accounting for internal firm resources and a failure to explain endogenous growth and, in part, the direction of expansion. Penrose’s (1995) contribution is a natural extension and complement to Hymer’s (Pitelis 2007a). It is a great tribute to Hymer’s insight that he also pre-dated some resource-based ideas (in Hymer 1990); he also explicitly built on Coase and used transaction costs analysis (which is missing from Penrose). It is for these reasons that the two scholars together serve to provide a more complete analytical framework.

Clearly, there are challenges with an integrated Hymer–Penrose story too. For example, they both ignore intra-firm conflict and pay no attention to intra-firm decision-making. In this context, we feel that future developers of the theory of the MNE should draw on Cyert and March (1992). This is still in its infancy (for an early attempt, see Pitelis 2007b). Other important linkages, such as George Richardson’s (1972) seminal contribution on inter-firm cooperation and Nelson and Winter’s (1982) evolutionary theory of the firm, are already being explored (Pitelis and Teece 2010; Teece 2014). Developments in this direction hold significant promise for the theory of the MNE. In the emergent, more complete theory of the MNE, Hymer’s original analysis plays a prominent role. To conclude, despite its limitations Hymer’s powerful framework and a sharp analytical mind allowed him to become the pioneer and indeed the father figure of the theory of the MNE, FDI and international business scholarship.

See Also

- ▶ [International Business](#)
- ▶ [Multinational Corporations](#)
- ▶ [Penrose, Edith T. \(1914–1996\)](#)
- ▶ [Teece, David J. \(Born 1948\)](#)

References

- Bain, J.S. 1956. *Barriers to new competition: Their character and consequences for manufacturing industries*. Boston: Harvard University Press.
- Baran, P., and P. Sweezy. 1966. *Monopoly capital*. Harmondsworth: Penguin.
- Birkinshaw, J. 1997. How multinational subsidiary mandates are gained and lost. *Journal of International Business Studies* 27: 467–496.
- Buckley, P.J. 2010. The theory of international business pre-Hymer. *Journal of World Business* 46: 61–73.
- Buckley, P.J., and M.C. Casson. 1976. *The future of multinational enterprise*. London: Macmillan.
- Casson, M. 1990. 'Introduction' to the large multinational corporation, by Stephen Hymer. In *Multinational corporations*, ed. M. Casson. Aldershot: Edward Elgar.
- Chandler Jr., A.D. 1962. *Strategy and structure: Chapters in the history of the American Industrial Enterprise*. Cambridge, MA: MIT Press.
- Chandler, A.D., and F. Redlich. 1961. Recent developments in American business administration and their conceptualisation. *Business History Review* 35: 1–27.
- Cohen, R.B., N. Felton, J. Van Liere, and M. Nkosi (eds.). 1979. *The multinational corporation: A radical approach, papers by Stephen Herbert Hymer*. Cambridge: Cambridge University Press.
- Cyert, R.M., and J.G. March. [1963] 1992. *A behavioral theory of the firm*. 2nd ed. Englewood Cliffs: Prentice Hall.
- Doz, Y.L. 2004. Toward a managerial theory of the MNC. In *Theories of the multinational enterprise: Diversity, complexity and relevance*, ed. M. Hitt and J. Cheng. Amsterdam: Elsevier.
- Dunning, J.H. 1958. *American investment in British Manufacturing Industry*. London: Allen & Unwin.
- Dunning, J.H. 1988. The eclectic paradigm of international production: A restatement and some possible extensions. *Journal of International Business Studies* 19: 1–31.
- Dunning, J.H. 2005. Is global capitalism morally defensible? *Contributions to Political Economy* 24: 135–151.
- Dunning, J.H., and C.N. Pitelis. 2008. Stephen Hymer's contribution to international business scholarship: An assessment and extension. *Journal of International Business Studies* 39: 167–176.
- Dunning, J.H., and C.N. Pitelis. 2010. The political economy of globalization: Revisiting Stephen Hymer 50 years on. *Transnational Corporations* 19: 1–29.
- Dunning, J.H., and A. Rugman. 1985. The influence of Hymer's dissertation of the theory of foreign direct investment. *American Economic Review* 75: 228–239.
- Hedlund, G. 1986. The hypermodern MNC: A heterarchy? *Human Resource Management* 25: 9–36.
- Horaguchi, H., and B. Toyne. 1990. Setting the record straight: Hymer, internalization theory and transaction cost economics. *Journal of International Business Studies* 21: 487–495.
- Kindleberger, C.P. 1984. Plus ça change: A look at the new literature. In *Multinational excursions*, ed. C.P. Kindleberger. Cambridge, MA: MIT Press.
- Kindleberger, C.P. 2002. Stephen Hymer and the multinational corporation. Special issue on Hymer. *Contributions to Political Economy* 21: 5–7.
- Kogut, B., and U. Zander. 1993. Knowledge of the firm and the evolutionary theory of the multinational corporation. *Journal of International Business Studies* 24: 625–645.
- Nelson, R., and S. Winter. 1982. *An evolutionary theory of economic change*. Cambridge, MA: Harvard University Press.
- Penrose, E.T. 1956. Foreign investment and the growth of the firm. *Economic Journal* 66: 220–235.
- Penrose, E.T. [1959] 1995. *The theory of the growth of the firm*. 3rd ed. Oxford: Oxford University Press.
- Pitelis, C.N. 2002. Stephen Hymer: Life and the political economy of multinational corporate capital. *Contributions to Political Economy* 21: 9–26.
- Pitelis, C.N. 2004. Edith Penrose and the resource-based view of (international) business strategy. *International Business Review* 13: 523–532.
- Pitelis, C.N. 2007a. Edith Penrose and a learning-based perspective on the MNE and OLI. *Management International Review* 47: 207–220.
- Pitelis, C.N. 2007b. A behavioral resource-based view of the firm: The synergy of Cyert and March (1963) and Penrose (1959). *Organization Science* 18: 478–490.
- Pitelis, C.N., and D.J. Teece. 2010. Cross-border market co-creation, dynamic capabilities and the entrepreneurial theory of the multinational enterprise. *Industrial and Corporate Change* 19: 1247–1270.
- Porter, M.E. 1980. *Competitive strategy: Techniques for analyzing industries and competitors*. New York: Free Press.
- Richardson, G.B. 1972. The organisation of industry. *Economic Journal* 82: 883–896.
- Teece, D.J. 1976. *The multinational corporation and the resource cost of international technology transfer*. Cambridge, MA: Ballinger.
- Teece, D.J. 1977. Technology transfer by multinational firms: The resource cost of transferring technological know-how. *The Economic Journal* 87: 242–261.
- Teece, D.J. 1981. The multinational enterprise: Market failure and market power considerations. *Sloan Management Review* 22: 3–17.
- Teece, D.J. 2014. A dynamic capabilities-based entrepreneurial theory of the multinational enterprise. *Journal of International Business Studies* 45: 8–37.

- UNCTAD (United Nations Conference on Trade and Development). 2011. *World investment report*. Switzerland: United Nations Publication.
- UNCTAD (United Nations Conference on Trade and Development). 2012. *World investment report*. Switzerland: United Nations Publication.
- UNCTAD (United Nations Conference on Trade and Development). 2013. *World investment report*. Switzerland: United Nations Publication.
- Williamson, O.E. 1981. The modern corporation: Origins, evolution, attributes. *Journal of Economic Literature* 19: 1537–1569.
- Hymer, S.H. 1970. The efficiency (contradictions) of multinational corporations. *American Economic Review Papers and Proceedings* 60: 441–448.
- Hymer, S.H. 1972. The multinational corporation and the law of uneven development. In *Economics and world order*, ed. J.N. Bhagwati. London: Macmillan.
- Hymer, S.H. 1976. *The international operations of national firms: A study of foreign direct investment*. Cambridge, MA: MIT Press.
- Hymer, S.H. 1979. The multinational corporation and the international division of labor. In *The multinational corporation: A radical approach. Papers by Stephen Herbert Hymer*, ed. R.B. Cohen et al. Cambridge: Cambridge University Press.

Selected Works

- Hymer, S.H. [1968] 1990. The large multinational corporation. In *Multinational corporations*, ed. M. Casson. Aldershot: Edward Elgar.