Title	A RECONSIDERATION OF THE THEORY OF THE MULTINATIONAL CORPORATION
Sub Title	
Author	HALLWOOD, C. Paul
Publisher	Keio Economic Society, Keio University
Publication year	1994
Jtitle	Keio economic studies Vol.31, No.2 (1994.) ,p.1- 11
JaLC DOI	
Abstract	This paper considers what qualifications need to be made to the acknowledged market failure, or, internalization theory, of the multinational corporation. It is argued that acknowledged theory needs to be amended on two counts. First, drawing on the new 'resource view' of the firm, it argued that production cost differences and other competitive advantages possessed by firms can also explain the motivation to internationalize production. Secondly, utilizing the measurement cost theory of organizational design, it is argued that production may be internationalized purely in order to enhance market efficacy and not to replace arm's length markets through internalization.
Notes	
Genre	Journal Article
URL	https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AA00260492-19940002-0001

A RECONSIDERATION OF THE THEORY OF THE MULTINATIONAL CORPORATION

C. Paul HALLWOOD*

Abstract: This paper considers what qualifications need to be made to the acknowledged market failure, or, internalization theory, of the multinational corporation. It is argued that acknowledged theory needs to be amended on two counts. First, drawing on the new 'resource view' of the firm, it argued that production cost differences and other competitive advantages possessed by firms can also explain the motivation to internationalize production. Secondly, utilizing the measurement cost theory of organizational design, it is argued that production may be internationalized purely in order to enhance market efficacy and not to replace arm's length markets through internalization.

Key-words: multinational corporation, evolutionary theory of the firm, strategic assets.
JEL classification: D23, F23, L80.

The acknowledged theory of the multinational corporation recognises that a necessary condition for the existence of such firms is that licence markets for knowledge-based intermediate products and services are afflicted by some sort of market failure.[1] Such failures could be due to the public good nature of knowledge (especially the non-excludability aspect), and the presence of risk or uncertainty due to an absence of a complete set of futures markets, asymmetric information, bounded rationality or a potential for opportunism. Seminal contributions to acknowledged theory were made by Hymer (1976), Johnson (1970), Buckley and Casson (1976), Dunning (1981) and Williamson (1981). According to acknowledged theory, market failures cause arm's length licence markets to be afflicted by high transaction costs as transactors in them have incentives to invest in information-collection in an effort to reduce market imperfections or to create safeguard mechanisms. For example, a licensor could invest in the 'policing' of the quality of goods or services produced under licence by a licensee—so as to

* Department of Economics, University of Connecticut, Avery Point, Groton, Connecticut 06340, U.S.A.

[1] We recognize, of course, that foreign markets may also be serviced through exports from the home country. So a further necessary condition for the establishment of a subsidiary is that that mode of organization is preferable on a basis of cost advantage to exporting. But this bilateral comparison is not the subject of this paper. It is merely assumed that the exporting alternative is ruled out for some reason—perhaps because of tariffs, prohibitive transport costs, or, the product may have to be produced at the point where it is consumed, as with many services.

avoid the external diseconomies arising from poor quality—in order to protect organizational rents. However, these transaction costs can be avoided by internalizing a transaction-impaired arm's length market simply by establishing a distant affiliate rather than utilizing an independent, foreign, licensor. Of course, market related transaction costs would be replaced by transaction costs of internal governance such as the cost of accounting or costs related to principal-agent, moral hazard, problems. Acknowledged theory of the multinational corporation tends to gloss over these costs but the message is still clear; a firm will internalize when internal transaction costs are lower than external transaction costs. Rugman (1980, 1986) went as far as to describe this internalization theory as an all encompassing or 'general theory' of the multinational corporation.

This paper asks what qualifications, if any, have to be made to this 'general theory' in the light of research on the organization of production that has appeared over the last decade or so? It will be shown in the remainder of this paper, that acknolwedged theory does indeed need to be qualified on two broad counts. First, the acknowledged theory of the multinational corporation must incorporate recent research—that has mainly appeared in the business economics literature—on the firm as a bundle of strategic assets that are unique to individual firms. One important implication of this research is that firms in the same industry are unlikely to have identical production functions. Secondly, acknowledged theory should incorporate certain implications that can follow from the internationalization of production in a follow-the-customer model of the multinational corporation—such as when Japanese suppliers of intermediate inputs to Japanese automobile and consumer electronics assemblers follow their Japanese customers, the assemblers, to Europe—which has been a marked feature of inward direct foreign investment into Europe beginning in the early-1980s. The main concept that I will use to explain the relevance of this phenomenon for the acknowledged theory of the multinational corporation is that of measurement cost economizing (measurement costs are incurred for example when inspecting a good prior to purchase[2]). And, although this concept was at first rather unexceptionally introduced into the literature on the multinational corporation over a decade ago, I will utilize it in a way that qualifies acknowledged theory.

1. STRATEGIC ASSETS AND THE PRODUCTION FUNCTION

The acknowledged theory of the multinational corporation assumes that in a given line of business, firms have identical access to information relating to the production function as well as identical access to factor markets. Accordingly, economy of scale considerations aside, indigeneous firms and a subsidiary of a multinational corporation have the same costs of production (as defined by a long

[2] Measurement costs need not be trivial. An oil company for example may spend over $100,000 per contract to have consultant engineers ascertain whether a contractor has delivered a service exactly as contracted for (Hallwood, 1990).

run average cost curve for example). Thus, taking account of the extra costs of doing business in a foreign country (due to e.g., the additional cost of international communication), acknowledged theory asserts that the subsidiary must be the *higher* cost producer. It claims, therefore, that a *necessary* condition for the existence of a foreign subsidiary is that it must have some transaction cost advantage over the alternative organizational arrangements of supplying a foreign market through the medium of a licenced indigenous producer.

However, recent research in the area of business organization strongly questions whether firms really do have identical access to information, especially information on the production function, that influences their competitive advantages.[3] In the new 'resource view' of the firm, the firm is made the fundamental unit of analysis, rather than the industry—as in much of industrial organization theory, or the transaction as in transaction cost economics. In the resource view, the firm is seen as a bundle of strategic assets. Strategic assets are broadly divided into 'resources' (i.e., stocks of available factors), and 'core competencies'. The latter term encompasses "a firm's capacity to deploy resources" (Amit and Schoemaker, 1993). That is, a core competency can take the form of an organizational ability that may not be possessed by other firms. It is the possession of specific core competencies rather than primary factors of production that is seen as a firm's main distinguishing feature. Core competencies are utilized to organize a set of resources that may well be readily available to other firms on 'the market'. Examples of strategic assets include a firm's technical capacity, its practices of brand management, a favorable cost structure, an R&D capability, high employee-morale, fast product development cycles, control of distribution channels, a large user base, reputation and high quality personnel. Schoemaker (1992) sees one of Honda's main competencies as its capability to design and manufacture high quality engines; while Apple Computer's core competencies are seen as its reputation for user-friendly products, a culture of risk-taking, the pursuance of bold visions, state-of-the-art technology and design and a loyal customer base. Prahalad and Hamel (1990) define a firm's core competencies as being both dynamic, especially the ability to adapt to changing strategic industry factors which affect industry-level profitability (such as an ability to adapt to changing customers needs, which in the follow-the-customer model discussed later includes the responsiveness to relocate with the customer); and as collective learning: "on how to coordinate diverse production skills and to investigate multiple streams of technologies" (p. 82). Recent literature on the Japanese firm, stresses that their competitive advantage is greatly enhanced by their unique innovations in organizational design (see *inter alia*, Aoki, 1990; Minker, 1993).

Strategic assets bestow on a firm its competitive advantages, and determine its ability to earn organizational rents. To do so, at least in the short run, strategic assets must be non-tradeable, inimitable and non-substitutable. Non-tradeability

[3] In fact, Demsetz as long ago as 1982 had raised just this point, arguing that informational barriers to entry would mean that production functions were not identical.

may be due to either factor-market imperfections or to what I call the 'inherent non-separability' of particular types of knowledge from the firm which created them—of which more in a moment. Inimitability according to Dierickx and Cool (1989) is due to one of several factors: for example, time compression diseconomies (that is, R & D cannot be hurried), interconnectedness of asset stocks (e.g., a large existing customer, base may help to promote technological change through customers' suggestions), causal ambiguity (where other firms are unsure about what to imitate) and isolating mechanisms such as property rights. Non-substitutability means that some other competency cannot stand in for the critical competency owned by a rival firm.

An unsettled point in the strategic asset literature which is of relevance here because its bears on the theory of the multinational corporation, is whether the non-transferability of core competencies is due to inherent non-separability or only to high transaction costs in the factor markets for strategic assets. The relevance of this debate to our discussion is as follows: if strategic assets cannot be purchased 'off the shelf' due only to market failures we remain squarely with the acknowledged theory of the multinational corporation. For example, in Dunning's (1988) eclectic paradigm the multinational corporation exists because of ownership, location and internalization advantages. Strategic assets fall under ownership advantages and factor-market failures under internalization benefits. However, as Chandler (1992) so strongly argues, "the basic technological characteristics of an industry in which the firms operated at the time of going overseas were more important than imperfect information in determining the number and location of plants built abroad" (p. 89). This was because "often suppliers and distributors had neither sufficient knowledge of the novel and complex products nor the facilities required to handle them efficiently" (p. 87). What Chandler is saying is that a modern firm is unique, with specific needs for intermediate inputs related to this uniqueness.

The study of the development of the early days of American automobile industry by Langlois and Robertson (1989) bears this out. Their thesis is that in an evolutionary environment, a leading automobile producer such as Ford often had no alternative but to produce various intermediate for inputs itself because no outside supplier had the requisite capability to do so. Also, according to Womack, Jones and Roos (1990) Eiji Toyoda and Taiichi Ohno at the Toyota Motor Company in Japan, when they were in the evolutionary process of developing the new and original organizational structures of their company, had to do so on their own. There simply were no independent management consultancies or any other firms which could have sold them the requisite information. Toyoda and Ohno created an organizational core competency which was entirely specific to their own company. Even to this day, their management practices, even the conceptually simple kanban system, have been found to be difficult to copy by other firms. Furthermore, once having created a unique organizational system—and it took them much more than a decade to perfect it, they then

possessed a strategic asset not possessed by any rival. It bestowed upon the Toyota Motor Company enormous competivive advantage, and gave it the capability to earn large organizational rents.

Kogut and Zander (1992, 1993), like other theorists in the business organization field, stress the idea that knowledge-transfer is cheapter within an organization than between organizations; and they suggest that at least some rent-earning knowledge is inherently non-transferable. They say that often a firm's knowledge is tacit and that "knowledge is embedded in the organizational principles by which people cooperate within organizations" (p. 383). Being tacit this knowledge, while useful, is not clearly defined and as such cannot be packaged and priced prior to transfer. That is, knowledge is the inseparable property of its creator and owner—rather as is a person's IQ. For Kogut and Zander (1992) knowledge takes the form of 'information' (which may be readily written down—as in a blue print), and as 'knowhow' (i.e. the ability to apply information[4]). It is the latter form of knowledge that is sometimes non-transferable. Langlois (1993) picks out judgement as the inherently non-contractible competency. Lei and Slocum (1992) define competencies as being embodied in organizational-learning and, importantly, are path dependent. That is, competencies are developed in an evolutionary process, with the future endowment not being knowable today. Thus, at the Toyota Motor Company organizational innovation grows out of the innovations that have preceded it.

Path dependency implies that investment in new competencies is likely to be complementary to a firm's existing stock of strategic assets. That is, a complementary investment will have a higher expected rate of return, and may also be less risky, that a 'blue sky' non-complementary investment. Furthermore, if firms own individually unique sets of strategic assets, complementarily implies that a newly created strategic asset will have a higher expected rate of return for the firm that created it than for any other firm. This feature alone discourages transfer, say, under a licence agreement, because a licensee will be unable to earn the maximum possible rent from it.

However, Dierickx and Cool (1989) and Barney (1986), *inter alia*, stress that knowledge cannot be bought off the shelf not because of inherent non-transferability but because of the existence of factor market imperfections, which give rise to high transaction costs. Dierickx and Cool argue that if factor markets were perfect, a firm that owned a strategic asset could just as well yield as much rent from it by selling it to another firm than by itself deploying it in production. Peteraf (1993) defines the four cornerstones of this factor market-failure view as embedded in the strategic asset theory of the firm. First, firms are heterogeneous with respect to their endowments of strategic assets. Secondly, there are *ex post* limits to competition for strategic assets due to both

[4] The distinction between information and know how is readily understood by any inexperienced baker that has set out to make bread using a recipe but without the know how of how best to combine the ingredients—which only learnt through experience.

product market imperfections and to inimitability—so that a firm's organizational rents are not necessarily competed away. Thirdly, strategic assets are imperfectly mobile due, e.g., to an owner's high switching costs. And, fourthly, there are *ex ante* limits to competition for strategic assets—so as not to bid up factor prices.

We can affect a rapprochement between these two different views on the non-tradeability of strategic assets; one emphasizing inherent non-transferability and the other factor market failures. Barney (1986) points out that organizational rents would be zero in perfect factor markets (with the factors rather than the organization in which thy work earning the rents). However, he also argues that even with perfect factor markets a firm may still earn organizational rents because of its superior insight into the value of each of its strategic assets simply because it is likely to have better information on its existing portfolio of strategic assets than does any other firm. We may incorporate this insight into the efficient market hypothesis widely used in finance theory.[5] That is, it is quite possible that the market price of a strategic asset fully incorporates all *publicly* available information (i.e., it is semi-strong form efficient), yet the market may not be strong-form efficient because of the existence of insider information—the originator of a particular strategic asset having greater insight into its potential complementarities with other strategic assets. This implies that the market prices of a strategic asset do not necessarily incorporate *all* information, so the market price undervalues the asset, leaving the firm with insider information earning organizational rents.

An important implication of this discussion about the possession by firms of unique strategic assets is that it may be the case that it will be the subsidiary that is the *low* cost producer, not a host country indigeneous firm. This is simply because the latter firms lack the necessary complementary firm-specific strategic assets. Or it could be that what is important to a firm's competitive advantage is its ability to produce high or reliable-quality goods or services or to be able to deliver to a precise time schedule. But that host country firms do not have the requisite strategic assets to achieve consistently the same high standards. It naturally follows that a subsidiary may be established by a multinational corporation to economize production costs—or, to reproduce these other competitive factors—rather than because of any transaction cost considerations. Indeed, transaction cost could be zero but the establishment of a subsidiary might still be the best way to maximize the organizational rents that may be earned from a firm's strategic assets. Looked at another way, organizational rents earned through a subsidiary may very well be higher than the maximum royalty payments that could potentially be made by a relatively high-cost or otherwise uncompetitive host country indigenous producer that uses the strategic assets under licence. The implication is that positive transaction costs are not necessary for the existence of the multinational corporation, production cost differences may be sufficient.

[5] The efficient market hypothesis is discussed in many finance texts. See for example, Hallwood and MacDonald (1994, chapter 11).

2. MEASUREMENT COST IN A THEORY OF THE MULTINATIONAL CORPORATION

The concept of measurement costs relates to the measurement of attributes of goods or services exchanged between a pair of transactors. Any transactor will want to inspect attributes to ensure that value received is equal to value contracted for. The term 'measurement' cost is due to Barzel (1982). McManus (1972) had developed a similar concept calling it 'enforcement cost'—which is the cost of enforcing a bargain. Casson (1982) coined the term 'monitoring cost' in his study of the international hotel business, but monitoring and measurement costs amount to the same thing. In each of these three studies the existence of measurement costs is argued to lead to organizational innovations in order to economize them. Product warranties are one such obvious case which are aimed at reducing the need to inspect goods, at cost, before purchase. The creation of reputation is another such measurement cost economizing device. Casson (1982) uses the measurement cost economizing properties of an established reputation to explain the competitive advantage of an international hotel group such as Hilton Hotels over indigenous host country hotels. The argument is simply that internationally mobile customers, having experienced quality of service in one location, know what to expect when using a member of the same hotel chain in another city. Against this they would have to invest in measurement costs before choosing to use the services of a previously unused indigenous hotel. Hallwood (1990) has used a similar argument to explain some of the competitive advantages of the internationalized suppliers of services and other inputs into offshore oil gathering. The customers, the international oil companies, having transacted with the internationalized suppliers in other locations, can reduce measurement costs by using these same suppliers in a new location rather than using previously untried indigenous host country suppliers—should they exist.

Both this oil industry case, the case of Japanese internationalized production in Europe mentioned earlier, and that of international hotel chains, can be characterized as 'follow-the-customer' examples of the multinational corporation—production is internationalized by the suppliers due to the international mobility of the customers. These cases are rather different when compared with the internationalization of production into a non-geographically mobile market as represented, say, by a given national market for consumer goods. In the latter the customers are not geographically mobile.

Hence, measurement costs arise because information on product quality and other attributes is not freely available, and we have said, that the internationalization of production is one organizational device for economizing measurement costs. But can measurement cost economizing represent a significant qualification to the acknowledged theory of the multinational corporation? After all, it might appear that the existence of measurement costs amount to just another market failure. Careful analysis yields an answer in the affirmative.

Recall that the acknowledged theory of the multinational corporation asserts that the multinational corporation is an organizational response to imperfections in arm's length (potential) licence markets. That is, the market of concern is that between a 'mother' firm and a potential foreign licensee, and not that between the licensee and its final customers. But our discussion of the multinational corporation as an organizational innovation in the circumstance of follow-the-customer rests on imperfections in the market between a subsidiary and these final customers. In fact, in the follow-the-customer model, as is illustrated by our three industry examples, production is internationalized primarily not to foreclose or internalize an arm's length market, it occurs rather to enhance the efficacy of an arm's length market by reducing customers' measurement costs.

The next question is whether measurement cost economizing is a sufficient reason for internationalization, or is a market failure in the first market, that between the 'mother' firm and its subsidiary also necessary? We can assume that a 'mother' firm, the owner of a strategic asset from which it wants to earn organizational rents by using it in conjunction with other assets in a foreign market, has as its objective function the maximization of these rents. It is, therefore, concerned with whether the organizational rent that it earns is greater when collected through the medium of a subsidiary compared with through the medium of a licence agreement with an independent firm.

The acknolwdged theory of the multinational corporation asserts that if the licence market is not transactionally impaired the 'mother' firm will choose the latter medium. But a number of points can be made about this conclusion. In the first place it takes a naive view of 'transactional impairment'. As we argued earlier, a factor market may be semi-strong form efficient, with the price of a strategic asset incorporating all publicly available information, yet organizational rents may be higher when earned through the medium of a subsidiary because the market is not strong form efficient. That is to say, the subsidiary is able to earn higher organizational rents for the 'mother' firm because, being a part of the 'mother' firms's organization, it is able to benefit from insider knowledge about complementarities with the 'mother' firm's other strategic assets.

A related point concerns the heterogeneity of sets of strategic assets across the universe of firms in a given industry. As we argued earlier, strategic assets are developed over time in a path dependent evolutionary process. Thus, firms are likely to invest sequentially in the creation of new strategic assets that are complementary to their existing set of strategic assets. Hence, a potential arm's length licensee, with a non-conguent set of strategic assets is unlikely to be able to offer licence fees as great as the organizational rents that the 'mother' firm can earn through setting up its own subsidiary in a foreign country. I will offer two clear examples of this non-complementarity problem. First, when oil companies set up a demand for technologically specialized goods and services in a new global location, even in an industrially advanced country such as Britain, there are no indigenous companies that would be so receptive of these specialized technologies

as to be able to pay sufficiently high licence fees. Their very unfamiliarity with the specialized technology means that they would not be able to maximize the competitive advantages that may be derived therefrom. A second example concerns the direct foreign investment in Europe by Japanese automobile and consumer electronics firms. As described by the Japanese Foreign Trade Organization (Jetro, 1990), Japanese assembly companies in these industries have taken with them from Japan large numbers of their suppliers of intermediate inputs. This is a 'classic' follow-the-customer configuration. One reason as to why this has happened is that the follower firms have unique sets of strategic assets. These have been built up over many years of prior trade with the assemblers, perhaps, within the special organizational confines of a Kieretsu. We can expect therefore, that the Japanese suppliers' strategic assets mesh closely with those of their Japanese customers. Again, because each firm's strategic assets are unique, those owned by the Japanese follower firms are non-congruent with those possessed by (potential) host country licensees. And, because of the lack of identical complementarily between strategic assets at the firm level, a potential licensee will not be able to offer sufficiently high licence fees. This is true even if the licence market is not transactional impaired.

There is another class of arguments discussed in more detail in Hallwood (1994) which also qualify the acknowledge theory of the multinational corporation. Briefly, the argument can be cast as an answer to this question: if the market for a firm-specific advantages is perfect—so that it can be purchased from the 'mother' firm at the competitive price through an arm's length market—are their any reasons which might block the takeover of a subsidiary by another firm? On the face of it, under these circumstances, it would appear that a sell-off would maximize the mother-firm's organizational rents (just as acknowledged theory asserts), especially if it is true that operating a subsidiary at great distance is expensive. However, even laying aside non-congruence of strategic assets, there is the question of the durability of the strategic asset 'reputation' when it is transferred from one ownership to another. Thus, when a subsidiary economizes measurement costs because it benefits from the established reputation of being a member of a specific ownership group, this reputation may be denuded if ownership is transferred to another firm. Customers, knowing that a transfer of ownership has taken place, may be skeptical of the ability of the new firm to maintain quality of service. If the new firm is to retain customers it must compensate them by lowering sales prices. Knowing this in advance, a potential purchaser of a subsidiary would not be able to offer in the buyout as much as the (discounted) value of expected rents earned buy the mother firm through the subsidiary. Thus, the subsidiary is retained, despite the perfection of the market for intermediate inputs.

Generally, what can be offered in a buyout of a subsidiary by interests indigenous to a host country depends upon expected prices and costs and, as strategic assets are not homogeneously distributed across firms, including the strategic asset 'reputation', there is really no reason to suppose that the maximum offered

buyout-price must be at least as great as the expected discounted value of a subsidiary's rents.

CONCLUSIONS

This paper has offered some qualifications to the acknowledged theory of the multinational corporation. The main argument is that transactional failures of the type admitted by acknowledged theory are not necessary for a foreign subsidiary to be retained by a 'mother' firm—i.e., for the multinational corporation to exist. Drawing on the concepts of strategic assets, the path dependency, or, evolutionary nature of their development, and their inherent non-tradeability, it was argued that production cost differences between firms may be sufficient to explain the choice of a subsidiary over the alternative of licencing. This view fully concurs with some recent work by economic historians such as Chandler (1992) on the motivation for internationalization. The paper also drew on the concept of measurement cost economizing, combined it with the strategic asset view of the firm, to conclude that, again, transactional impairment of (potential) licence markets is not a necessary condition for the existence of the multinational corporation.

University of Connecticut

REFERENCES

Amit, R. and Schoemaker, P. J. H. (1993), "Strategic Assets and Organizational Rent", *Strategic Management Journal*, 14(1), 33–46.

Aoki, M. (1990), "Towards an Economic Model of The Japanese Firm", *Journal of Economic Literature*, 28, March, 1–27.

Barney, J. B. (1986), "Strategic Factor Markets: Expectations, Luck and Businese Strategy", *Management Science*, 32(10), 1231–1241.

Barzel, Y. (1982), "Measurement Cost and the Organization of Markets", *Journal of Law and Economics*, Vol. 25, April, pp. 27–48.

Buckley, P. J. and Casson, M. (1976), *The Future of the Multinational Enterprise*, Holmes and Meir Publishers, New York.

Casson, M. (1982), "Transaction Costs and the Theory of the Multinational Enterprise", in A. M. Rugman (ed), *New Theories of the Multinational Enterprize*, St. Martins Press, New York, pp. 24–43.

Chandler, A. D. (1992), "Organizational Capabilities and the Economic History of the International Enterprise", *Journal of Economic Perspectives*, 6(3), 79–100.

Demsetz, H. (1982), "Barriers to Entry", *American Economic Review*, Vol. 72(1), March, pp. 47–57.

Dierickx, I. and Cool, K. (1989), "Asset Stock Accumulation and Sustainability of Competitive Advantage", *Management Science*, 35(12), 1505–1511.

Dunning, J. H. (1988), "The Eclectic Paradigm of International Production: A Restatement and Some Possible Extensions", *Journal of Business Studies*, Spring, pp. 1–31.

Dunning, J. H. (1981), *International Production and the Multinational Enterprize*, Allen and Unwin, London.

Hallwood, C. P. (1994), "An Observation on the Transaction Cost Theory of the (Multinational)

Firm", *Journal of Institutional and Theoretical Economics*, 150(2), June, 351–362.
Hallwood, C. P. and MacDonald, R. (1994), *International Money and Finance*, Blackwells, Oxford.
Hallwood, C. P. (1990), *Transaction Costs and Trade Between Multinational Corporations: A Study of the Offshore Oil Supply Industry*, Unwin Hyman, London.
Hymer, S. H. (1976), *The International Operation of National Firms: A Study of Direct Foreign Investment*, MIT Press, Cambridge.
Jetro (1990), *Current Situation of Business Operations of Japanese-Manufacturing Enterprises in Europe*, The 6th Survey Report, International Economic and Trade Information Centre, London.
Johnson, H. G. (1970), "The Efficiency and Welfare Implications of the Multinational Enterprize", in C. P. Kindleberger, "The International Corporation: A Symposium", MIT Press, Cambridge.
Kogut, B. and Zander, U. (1993), "Knowledge of the Firm and the Evolutionary Theory of the Multinational Corporation", *Journal of International Business Studies*, 24(4), 625–644.
Kogut, B. and Zander, U. (1992), "Knowledge of the Firm, Combinative Capabilities, and the Replication of Technology", *Organization Science*, 3, 383–397.
Langlois, R. N. (1993), "Capabilities and Coherence in Firms and Markets", *Conference on Evolutionary and Resource-based Approaches to Strategy*, Copenhangen, August.
Langlois, R. N. and Robertson, P. L. (1989), "Explaining Vertical Integration: Lessons from the American Automobile Industry", *Journal of Ecnomic History*, 49(2), 361–375.
Lei, D. and Slocum, J. W. (1992), "Global Strategy, Competence Building and Strategic Alliances", *California Management Review*, Fall, 35(1), 81–97.
McManus, J. C. (1972), "The Theory of the International Firm". In G. Paquaet (editor), *The Multinational Firm and the Nation State*, Collier-McMillan, Toronto.
Minkler, A. P. (1993), "The Problem with Dispersed Knowledge: Firms in Theory and Practice", *Kyklos*, 46(6), 569–587.
Peteraf, M. A. (1993), "The Cornerstones of Competitive Advantage", *Strategic Management Journal*, 13(3), 179–191.
Prahalad, C. K. and Hamel, G. (1990), "The Core Competencies of the Corporation", *Harvard Business Review*, May–June, 90(3), 79–91.
Rugman, A. M. (1986), "New Theories of the Multinational Enterprize: An Assessment of Internalization Theory", *Bulletin of Economic Research*, 38(2), 101–117.
Rugman, A. M. (1980), "Internalization as a General Theory of Foreign Direct Investment: A Re-Appraisal of the Literature", *Weltwirtschaftliches Archiv*, Band 116, Heft 2, pp. 365–379.
Schoemaker, P. J. H. (1992), "How to Link Strategic Vision to Core Capabilities", *Sloan Management Review*, 34(1), Fall, 67–81.
Williamson, O. E. (1981), "The Modern Corporation: Origins, Evolution, Attributes", *Journal of Economic Literature*, Vol. XIX (December), pp. 1537–1568.
Womack, J. P., Jones, D. T., and Roos, D. (1991), *The Machine that Changed the World*, Harper Perennial, New York.