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COST, VALUE AND FOREIGN MARKET ENTRY MODE: THE TRANSACTION AND THE FIRM

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This paper compares and contrasts the mode of foreign market entry decision from the transaction cost/internalization and organizational capability perspectives. Each of these perspectives operates at a different level of analysis, respectively the transaction and the firm, and consequently differs in the primary arena of attention, namely transaction characteristics and the capabilities of firms. In making the comparison, a key distinction is made between the cost and the value aspects in the management of know-how, based on which issues pertaining to the transfer of knowledge within and across firm boundaries and the exploitation and enhancement of competitive advantage are closely examined. The main purpose of this paper is to demonstrate the implications of a shift in frame from cost to value in the analysis of decisions related to firm boundaries. Entry into foreign markets is used primarily as a vehicle for the accomplishment of this purpose. The paper shows how the value-based framework of the organizational capability perspective radically and fundamentally shifts the approach towards the governance of firm boundaries and argues that, even though TC/internalization theory raises some valid concerns, the organizational capability framework may be more in tune with today's business context. Some of the assumptions of the TC/internalization perspective, both direct—–opportunism, exploitation of existing advantage—and indirect—preservation of the value of know-how across locational contexts, asymmetry between bounded rationality for transaction and production purposes—are critically examined and questioned. Implications of a shift from a cost to a value-based framework are discussed and the need for a shift in research focus is emphasized.

Global competition and technological developments have significantly altered the way in which firms conduct business. The need to simultaneously manage the multiplicity of pressures—product, market, technological, competitive—has resulted in a sharp increase in international business activity and has given impetus to a wide variety of governance arrangements, both subsidiaries and collaborations, for managing them (Contractor and Lorange, 1988). In this context, the mode of entry into a foreign market has become a frontier issue in international research and has crucial implications for competitive advantage (Wind and Perlmutter, 1977; Erramilli and Rao, 1993; Root, 1987; Davidson, 1982; Hill, Hwang, and Kim, 1990).

Research on the topic of entry mode has predominantly been from the internalization perspective (Buckley and Casson, 1976; Rugman, 1980), which is closely related to transaction cost (TC) theory (Williamson, 1975). The internalization and TC perspectives are both concerned with the minimization of TC and the conditions underlying market failure. Both analyze the characteristics of a transaction in order to decide on the most efficient, i.e., TC minimizing, governance mode,[1] the primary difference being that the focus of

Key words: foreign market entry; multinational firms; global strategy; transaction costs; firm capabilities

[1] In this paper, the terms 'mode of governance,' 'mode of entry' and 'mode of ownership are used interchangeably.

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internalization is on the market for know-how while that of TC is on more microlevel transaction characteristics such as asset specificity (Teece, 1986). Thus, internalization theory can be considered to be the TC theory of the multinational corporation (Rugman, 1986).[2]

In recent years, however, there has been increasing attention in the literature to the notion of firms competing primarily on the basis of capabilities (Prahalad and Hamel, 1990; Cantwell, 1991), and the corresponding notion of collaboration formation for the purpose of the development of a firm's capabilities (Kogut, 1988; Hamel, 1991; Mody, 1993). This line of argument is theoretically and intellectually rooted in the behavioral theory (Cyert and March, 1963) and evolutionary theory of the firm (Nelson and Winter, 1982). In this perspective, termed the organizational capability (OC) perspective in this paper, the historical dimension of a firm's activities is critical, since its past experiences engender the underlying routines on the basis of which it undertakes subsequent actions. Therefore, organizational capabilities behave both as a source of competitive advantage and as a constraint. In line with this, the critical consideration in determining the mode of entry is the compatibility between the firm's existing routines and those needed to be successful in a particular market (Johanson and Vahlne, 1977).

In general, the OC perspective has far-reaching implications in that the primary arena of attention shifts from the characteristics of the transaction to the capabilities of firms. Teece (1982) argues that the source of a firm's advantage is better understood in terms of capabilities rather than products. Relatedly, the focus of strategy shifts from downstream products to upstream capabilities, and issues related to capability accumulation and deployment become of important strategic significance (Teece, Pisano, and Shuen, 1990).

This paper examines the foreign market entry behavior of firms from these two perspectives, i.e., TC/internalization and OC.[3] Table 1 highlights some key differences in orientation between these two perspectives, the implications of which are addressed in detail in the body of the paper.

The difference between the two perspectives has significant implications for the way they approach foreign market entry decisions. As I will argue, where the internalization perspective focuses solely on the TC involved and market failure, OC looks at the limits to firms' capabilities, and hierarchical failure. Where the internalization perspective focuses only on exploitation of firm advantage, OC also looks at the development of such advantage. Where internalization focuses solely on cost minimization in transacting with a partner, OC also looks at the benefits of doing so. Critical to understanding these differences is the key distinction made between the cost and the value aspects in the management of know-how. I define value in terms of the potential rent-generating abilities of an asset or know-how.

The distinction between cost and value is a pivotal one since it causes a fundamental shift in the approach towards governance. The primary purpose of this paper is to demonstrate the implications of a shift in frame from cost to value in the analysis of decisions related to firm boundaries. Entry into foreign markets is used as a vehicle for the accomplishment of this purpose. The OC perspective broadens the focus from minimizing the (transaction) costs involved in the organization of an activity under a particular governance arrangement to also incorporate the managing of value, both its erosion and enhancement, inherent in a firm's knowledge base. In the course of making its arguments, the paper also addresses two secondary purposes: (a) to demonstrate that the OC-based logic is less restrictive than TC logic; while the TC minimization approach is driven by the assumption of opportunism, in conjunction with bounded rationality, the OC argument is centered around bounded rationality alone and operates independent of the assumption of opportunism (Kogut and Zander, 1993; Conner, 1991), (b) to examine TC and OC-based reasoning in the light of some of the results of past empirical work. Here, I demonstrate how OC logic is able to explain governance choices made under TC-dominated reasoning as well as those that TC logic faces difficulty in explaining. At times, the two explanations reinforce one another while at other times they result in differing preferences. It is argued that, even though the former raises some valid concerns, the latter may be more in tune with today's business context.

[2] In this paper, the two terms are used interchangeably.

[3] Competitive strategy-based arguments influencing entry decisions, e.g., risk sharing, co-opting or blocking competitors, are acknowledged but are not dealt with in this paper.

Table 1. Comparison of the TC/internalization and the organizational capability perspectives

	The TC/internalization perspective	The organizational capability perspective
Unit of analysis	Transaction	Firm
Primary area of focus	Transaction characteristics	Firm capabilities
Key assumption	Opportunism	Bounded rationality
Source of competitiveness	Efficient management of transactions	Development and exploitation of capabilities
Primary orientation in the management of know-how	Cost minimization	Management of value
Key consideration to choice of ownership form	TC minimization; fit between transaction characteristics and form of governance	Contributions towards and demands placed on firm's capabilities
Temporal orientation	Essentially static and equilibrium-oriented	Essentially dynamic; learning and capability building as developmental processes

The paper first briefly discusses the two broad considerations pertaining to foreign market entry. This is followed by a discussion of the key arguments underlying the OC perspective,[4] and its application to the decision regarding means of entry into a foreign market, more specifically internalization (a subsidiary) or collaboration.[5] In the subsequent section, I first argue that TC/internalization and OC operate at different levels of analysis—respectively the transaction and the firm—and consequently have a different focus of interest. The two perspectives are then compared and contrasted on specific issues related to the management of know-how. Here, the fundamental distinction in terms of cost and value approaches towards governance is used to frame the discussion. I also show in this section where the two perspectives complement one another and where they diverge. In the final section, some of the shortcomings of the internalization perspective are pointed out, and the need for greater attention to a firm's capabilities in order to attain a more complete perspective on market entry is emphasized. The paper is not intended to be a criticism of the TC approach so much as to increase awareness of its limitations in today's context.

[4] Since the TC argument is fairly well known, I discuss it in making the various arguments but do not dedicate a separate full-fledged literature review section to it in the paper.

[5] Being a comparison of the TC and OC perspectives, the paper does not cover exports as a mode of entry. This is because TC analysis of mode choice has typically been applied to the choice of wholly owned subsidiaries, joint ventures and nonequity contractual forms of collaboration such as licensing, but not exports. The reason for this is probably that a decision whether to operate in a particular market through exports or through more involved forms like the above frequently hinges on factors extraneous to TC, such as government intervention through tariffs and quotas and transportation costs.

FOREIGN MARKET ENTRY

There are two broad issues of relevance in foreign market entry decisions. The first is the motivation for firms to enter a foreign market, i.e., the entry decision itself. Broadly speaking, entry into a particular product-market is either to exploit an advantage that a firm possesses, to strengthen an existing one, or to develop a new, though normally related, one. The second issue is the means by which firms choose to participate in the particular product-market, i.e., the decision regarding the mode of entry. Though both the TC and OC perspectives represent the firm as profit-seeking entities (Winter, 1988), where firm strategy can be considered as the search for rents (Bowman, 1974; Rumelt, 1984), there is an important difference in their approach to foreign market entry. Internalization is concerned primarily with exploitation while OC is motivated by considerations of not just exploitation but also enhancement or development of capabilities.

In essence, in the internalization perspective the multinational firm is the possessor of some rent-yielding firm-specific advantage, primarily some form of know-how, and firms are motivated to enter foreign markets in order to exploit this advantage in the most efficient manner. The market for know-how, however, under the assumption of opportunistic behavior and bounded rationality by economic actors, is characterized by imperfections which can create complications in its pricing and transfer and consequently increase the associated costs of transacting with a partner (Buckley and Casson, 1976; Teece 1981). A high level of TC results in a preference for internalizing the transaction, a subsidiary being considered more efficient under such circumstances. In brief, then, the internalization perspective is primarily oriented towards the selection of the mode of entry which minimizes the TC associated with the exploitation of an existing advantage. In doing so, it is concerned with protecting the rent potential and preventing it from dissipating due to the costs of transacting with a partner.

Although the OC perspective also sees the earning of rents as the ultimate objective, its focus in entering a market is both broader and different. It is concerned with the efficient utilization of a firm's resources and capabilities as well as their effective and efficient development. A balance between exploitation and development is considered essential for the sustained earning of rents (Hedlund and Rolander, 1990; March, 1991). The development of capabilities is a concern because competing successfully in the global marketplace of today requires not a single but a complex set of capabilities. The source of these capabilities can be rooted in a firm, industry or country (Cantwell, 1991; Porter, 1990). A robust and sustainable advantage may require a firm to operate in different markets in order to develop various differing though associated capabilities, and thus benefit from the idiosyncratic skills rooted in the particular country. Therefore, for example, the heavy presence of U.S. firms in Germany in certain sectors where German technology was especially advanced, such as pharmaceuticals, can be explained by such presence being critical to build the firms' knowledge base and remain at the forefront of technological activity (Cantwell, 1989). In short, the diversity of environments in which a firm operates may be a 'key asset of the multinational firm' and 'key explanator of its ongoing success' since it provides the firm with a superior knowledge base (Ghoshal, 1987: 431).

With regard to mode of entry, the OC perspective suggests that the driving force underlying firms' mode of governance decisions may not be mere TC minimization by optimally matching the ownership form with the transaction characteristics but, rather, a broader issue of the management of a firm's capabilities (Kogut and Zander, 1992, 1993), in terms of development and deployment of its knowledge base. Here, the fit between the requirements of the particular product-market strategy and the firm's existing stock of knowledge is of primary importance in determining the appropriateness of a particular ownership form. In this regard, Teece *et al.* (1990) and Hamel (1991) view interfirm competition as essentially concerned with knowledge acquisition and development, with Hamel arguing that collaborative governance modes should not be regarded simply as a cost-efficient alternative to markets or wholly owned subsidiaries but as an alternative to other modes of knowledge acquisition.

THE ORGANIZATIONAL CAPABILITY PERSPECTIVE

The OC perspective is based on the notions of bounded rationality and incrementalism and provides a central role to organizational routines in determining firm behavior (Cyert and March, 1963; Nelson and Winter, 1982). It regards the firm essentially as a bundle of relatively static and transferable resources, which are then transformed into capabilities through dynamic and interactive firm-specific processes (Amit and Schoemaker, 1993) where individual skills, organization and technology are inextricably woven together (Nelson and Winter, 1982). Capabilities, therefore, encompass resources and infuse them with sustainable value.

Capability accumulation is a dynamic process where the information management attributes of the firm, i.e., the firm's ability to acquire, evaluate, assimilate, integrate, diffuse, deploy and exploit knowledge, is critical. This refers to the process and routines by which a firm's knowledge base is developed and integrated into the functioning of the organization, the value of current knowledge is enhanced through new combinations, and its knowledge base is deployed in order to exploit its rent-earning potential. This process is closely dependent on the relatedness of new flows of knowledge through current strategies to the existing stock of knowledge (Cool and Schendel, 1988; Johanson and Vahlne, 1977; Carlson, 1973, 1974), and is largely idiosyncratic to the firm. These information management capabilities are what makes firms 'repositories of embedded knowledge' (Badaracco 1991: 129), the embeddedness of the underlying processes both limiting transferability and imitability and, consequently, providing sustainability of rents.

The ownership decision

Some of the earliest works on the foreign market entry behavior of firms, which were rooted in the OC perspective, are those of Carlson (1966, 1973, 1974) and Aharoni (1966). Indeed, Carlson (1966) was one of the first to introduce and discuss the notion of the business firm as a bundle of tangible and intangible resources required for the organization of production and marketing, and to apply it to the international activities of firms. Since then, there has been a steady stream of work on the topic, primarily from Scandinavia (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977; Luostarinen, 1980; Johanson and Mattsson, 1988; Forsgren, 1989; Axelsson and Johanson, 1992), aimed largely at attaining a closer understanding of firms' internationalization decisions through in-depth and longitudinal study of a limited number of firms. The basic thesis across all these studies is that internationalization is essentially a path-dependent incremental process where the pattern of international involvement by a firm is a function of its past international experience.

All the above authors emphasize the nature of firm experience and the information management costs, the two being related, as critical to understanding firms' international activities. In this regard, Galbraith and Kay stress that 'the rationale for multinational strategy must be sought in terms of potential economies of information' (1986: 12) which are attained from information-based linkages among its various activities. Here, 'markets and technologies that are richly linked facilitate transferring managerial experience and knowledge' (1986: 7). From the OC perspective, then, the existing stock of a firm's resources and capabilities and the requirements of the operational context both direct and limit its strategic evaluation of a particular market entry (Tallman, 1991; Johanson and Vahlne, 1977; Luostarinen, 1980).

Market entry to exploit existing capabilities frequently necessitates associated new capabilities in order to be competitive (Haspeslagh and Jemison, 1991). Due to lack of experience in a new sphere of activity, not only does a firm incur substantially higher costs of information acquisition, interpretation and absorption (Carlson 1973, 1974; Hisey and Caves, 1985), but development and integration of new knowledge is a gradual and incremental process which would be more costly and less efficient relative to competitors who are already present and more experienced in this domain (Penrose, 1980). On the other hand, greater similarities between existing and required capabilities increase the applicability of the firm's existing expertise and the ability to relate its resources across two activities. This lowers implementation costs, since existing routines can be used, and increases the efficiency of resource utilization and the effectiveness of its transfer in-house. In the absence of such economies, potential rents would be dissipated.

From the OC perspective, then, the firm boundary issue is a capability-related one. Where the firm already has a strong knowledge base and possesses the requisite routines, internalization provides an advantage and would be the preferred manner of undertaking the activity since incremental costs are marginal. On the other hand, the capability constraint becomes important when a firm enters into unfamiliar areas of activity where the technological and market distance of the target activity is further away from the firm's store of knowledge. In such situations, an alternative is to supplement the firm's resources through 'grafting' of new knowledge from others (Huber, 1991) and subsequent integration into its knowledge base. Collaborations are a useful vehicle for enhancing knowledge in critical areas of functioning where the requisite level of knowledge is lacking and cannot be developed within an acceptable timeframe or cost.

Ownership mode decisions, therefore, are made under a calculus governed by considerations related to the development and deployment of a firm's capabilities. While investment through a wholly owned subsidiary results in largely similar routines being perpetuated, due to stickiness of know-how and path dependence, licensing on the other hand does not involve adequate interaction for significant exposure to and ingestion of information (Pisano, 1988; Vernon and Wells, 1986).

Joint ventures (JVs) can be an attractive vehicle for enhancing firms' capabilities when the development of all the necessary know-how in-house is viewed as too slow a process while licensing is viewed as relatively inadequate in terms of the more subtle and tacit aspects of the know-how (Pisano, 1988; Killing, 1994). JVs provide the structural mechanisms for fostering more intimate interaction for the interchange of knowledge (Killing, 1983; Kogut, 1988; Davies, 1977). Mechanisms such as board membership, secondment of selected personnel to key positions at various levels, adaptation of systems, etc. are more characteristic of JVs than nonequity collaborations and facilitate information flows and effective coordination. Moreover, shared ownership also creates a greater alignment of incentives. This does not deny that other interfirm alliances also provide scope for learning and capability accumulation (Hamel, 1991). The difference is a matter of degree.

COMPARISON OF THE TWO PERSPECTIVES

Both the internalization and OC perspectives provide useful insight into the mode of ownership decision. Fundamentally, however, the two perspectives differ in their level of analysis and consequent focus of interest. Internalization focuses on the transaction, with the efficient management of transactions being the source of the firm's competitiveness. The concern is accordingly with TC minimization. The OC perspective focuses on the organizational unit, which is formed through the aggregation of like transactions which have been internalized by the firm (Ulrich and Barney, 1984). The primary concern here is the attainment of competitiveness through the development and exploitation of a firm's capabilities, and ownership forms are evaluated in this light.

Chandler distinguishes between himself and Williamson (1975) on the basis of these units of analysis and argues as follows:

> I am convinced that the unit of analysis must be the firm, rather than the transaction or contractual relations entered into by the firm (1992: 99)

He also emphasizes that:

> if the firm is the unit of analysis, instead of the transaction, then the specific nature of the firm's facilities and skills becomes the *most* significant factor in determining what will be done by the firm and what in the market (1992: 86; italics added)

What this suggests is that capability considerations significantly influence boundary decisions. TC, however, limits itself to the particular transactional context and ignores or, rather, implicitly assumes the existence of the requisite capabilities for managing an internalized transaction (Conner, 1991; Demsetz, 1988; Teece, 1985; Teece *et al*., 1990). These authors point out this source of weakness in the theory and argue that, by implicitly equating production functions across firms, TC denies firm-level idiosyncratic routines and the coordinative role of management, and takes firm capabilities for granted. OC, with its logic based on the assumption of constraints on a firm's capabilities, questions this very assumption.

The differences between the two perspectives have a number of critical implications (see Table 2):

Know-how transferability across firm boundaries

The decision to internalize implies that it is beneficial for the firm to exploit its advantage itself rather than through other firms. The internalization perspective reasons that market mechanisms for the transfer of know-how fail, under the assumption of opportunism, when the know-how is of a tacit nature. This happens because the buyer is uncertain regarding its true value, and revelation of the know-how to convince the buyer of its worth paradoxically reduces the value since he then possesses it without paying for it (Buckley and Casson, 1976). Therefore, the firm finds it more efficient (i.e., less costly in a TC minimizing sense) to internalize the transaction and exploit the know-how through a subsidiary. When know-how is not tacit, contractual arrangements such as licensing would tend to be a more efficient option for exploiting the know-how (Davidson and McFetridge, 1985; Contractor, 1984; Telesio, 1979).

The critical difference between the TC and OC perspectives is that TC focuses primarily on the impact of a governance form on the costs of contracting and transacting while OC addresses

Table 2. Implications for the management of a firm's knowledge base

	The TC/internalization perspective	The organizational capability perspective
Transfer of know-how across boundaries	Market failure under assumption of opportunism	Market failure due to inherent differences in the capabilities of firms; firm specificity and imperfect imitability of know-how; opportunism not an issue
Transfer of know-how within boundaries	Assumption of perfect transferability of firm-specific know-how across different contexts	Hierarchical failure due to context specificity and imperfect mobility of know-how; opportunism not an issue
Firm-specific advantage	Emphasis on exploitation of advantage	Focus on exploitation as well as development of advantage
Orientation towards collaborations	Cost minimization; protective stance; narrow focus on the know-how at the boundary interface	Also looks at benefits; positive value-creating stance; broader focus towards the routines underlying the know-how

the impact of a governance form on the rent-generating potential of the know-how. Other than minimizing TC, there is a value aspect to the governance mode decision, the source of which lies in some competence possessed by a particular firm which has more utility and worth to that firm than to any other. In the OC view, firms' routines are at best imperfectly transferable across the boundary interface, especially for more technologically or socially complex assets. Imitation of these skills not only is most difficult, takes time and is costly, but the process is uncertain and at best imperfect since the surrounding support structure can never be copied fully as a result of differing firm histories (Cantwell, 1991). These are therefore a form of idiosyncratic rent-earning capital. In the search for rents, firms are motivated to conduct business in a manner which best preserves or enhances the value generated by such competencies.

The predominant focus on TC minimization constrains the internalization perspective from fully addressing the ultimate objective of earning rents. From the logic of TC, if a firm were willing to bear the higher cost of transacting, then collaborative governance mechanisms would at least be a viable option. Being limited to the domain of costs, this logic does not recognize that, if the rent-yielding know-how is of a tacit nature, this very characteristic not only increases the cost of transacting but it also limits the transferability of the know-how to another firm without loss of value. Inadequate capabilities of other firms could result in erosion of the rent potential if the activity is conducted through alternative governance modes.

Now let us turn to the multinational firm from the OC perspective. In his discussion of the ownership–location–internalization framework, Dunning (1988) singles out the ability of multinational firms to create and capture the transactional benefits arising from common governance of a global network as a particularly important ownership advantage. Dunning (1988) and Ghoshal (1987) have criticized extant multinational theory for not appreciating these coordinating benefits that the multinational firm possesses. They argue that organizational skills in managing the flow of information and knowledge throughout the global network can infuse an activity with value, and are the ultimate source of firm advantage. Differently put, in attempting to exploit its advantage overseas, a decision to maintain the transaction within the firm could be due to superior organization and, relatedly, a superior ability to use and generate rents from its know-how rather than TC minimization.

From the OC point of view, then, the true source of competitive advantage and sustainable rents arises not from the more embodied and visible elements of the know-how but from the supporting structure, or complementary organizational capabilities around it, that would enable exploitation of this advantage (Teece, 1986; Dunning, 1988). This distinguishes between the 'hard' and 'soft' elements of the firm's particular know-how, where the former loses significant value without the latter but the two are fused together and difficult to 'externalize' to the market due to the firm specificity of the latter.

From the OC perspective, therefore, licensing of know-how is frequently not feasible for such firm-specific idiosyncratic know-how since, the firm having invested in supporting skills, the know-how has more value to the firm than to a potential licensee who, not having the supporting skills in place, would have to bear the costs of replication and adaptation, and that too only imperfectly (Cantwell, 1991). In other words, the issue is not opportunistic behavior but rather that, intrinsically, '*the technology is simply worth less*' (italics added) to another actor (Cantwell, 1991: 50). The market does not fail due to opportunism but, rather, due to superior capabilities of the multinational in deploying its know-how (Kogut and Zander, 1994) and limitations to the capabilities of the other firm in efficiently and effectively acquiring and integrating the particular knowledge into its own functioning. *The issue, therefore, is not so much the failure of a market under the assumption of opportunism but rather the failure of a market due to inherent differences in the capabilities of firms*. This is lucidly illustrated by Madhok (1996a) through an example which applies OC logic to a transaction between two firms. Whether the buyer is opportunistic or not, the market fails because he is boundedly rational and does not possess the requisite set of capabilities to support the transaction without loss in value. In a sense, for truly tacit knowledge, the market does not exist, the reason for which has nothing to do with opportunism.

The key argument above is that of superior capabilities of the possessor of the knowledge and the costliness for others to develop the requisite capabilities. Clearly, this depends on the nature of the resources/capabilities which underlie the know-how relevant to the transaction. Broadly speaking, though a wide number of resource/capability attributes (e.g., causal ambiguity, social complexity, cospecificity, invisibility, observability, teachability) have been identified by different authors (Barney, 1991; Reed and DeFillippi, 1990; Itami, 1987; Amit and Schoemaker, 1993; Winter, 1987), in effect these share the common underlying characteristics of inimitability and immobility which result from embeddedness of the routines underlying the firm's know-how. Inimitability refers to difficulty in replication of the know-how by other firms without loss in value while immobility refers to difficulty in its transfer in-house by the same firm without loss in value (this is dealt with in the next section). Without the property of embeddedness, the know-how bundle would tend to lose its scarcity value.

Basically, any know-how can be viewed as comprised of an embedded and a generic (i.e., nonembedded) component. Being less easily imitable, firm-embedded know-how or, more appropriately, know-how characterized by a high embedded-to-generic ratio (E/G_F) would tend to be not only more value-laden but would also be more difficult to transfer to other firms without loss in value than generic know-how. This is the ownership effect. The ownership effect has direct implications for the entry decisions of a firm seeking to earn rents through the exploitation of an existing advantage. Basically, due to concerns regarding value erosion as a result of imperfect imitability, a high E/G_F tends to result in a greater preference for internalization.

> *Proposition 1: In the exploitation of an existing advantage, a high potential for erosion in the value of a firm's know-how due to the ownership effect will result in a greater preference for internalization.*

Note that the outcome of the above proposition is clearly consistent with that put forward by the TC argument. However, the logic itself is different and provides an alternative explanation which is complementary to TC. For example, empirical research reveals that collaborating is more prevalent in the case of a more mature technology or product, characterized by greater standardization, codification and diffusion of knowlege (Davidson and McFetridge, 1985; Teece, 1976). The common explanation is that the level of TC is lower in such cases since the know-how is easier to evaluate and there is less scope for opportunism (Davidson and McFetridge, 1985; Hill and Kim, 1988). From the OC perspective, however, not only do simple and articulable resources involve a relatively low-cost transaction but also, being less embedded and less firm-specific, there is less scope for erosion in value on transfer, both because the value itself is lower and since the needed skills can be more easily transferred or acquired. This makes collaborations more likely. On the other hand, not only are the costs of transacting higher when resources are more embedded, since both the buyer uncertainty problem as well as the cost of transfer are exacerbated but, also, the potential for value erosion is higher due to the firm specificity of the know-how and consequently greater intrinsic differences in capabilities.

In sum, we can see that, with respect to knowledge transfer across firm boundaries, the OC argument is compatible with TC arguments. Both predict a similar outcome, that tacitness leads to internalization. However, the value-driven argument of OC is more parsimonious in its assumptions. Bounded rationality and, consequently, intrinsic differential capabilities of firms drive the governance mode choice, with the (hierarchical) failure of other firms rather than opportunistic considerations defining such choices. For a firm, then, the primary issue from the OC perspective is fundamentally different from the internalization one. The focal concern shifts from the extent of TC saved or circumvented by not conducting the transaction through the market mechanism to the extent of value sacrificed, in terms of overall rent-generating capacity, by not conducting the transaction within the firm. This is an important shift in orientation with radical implications.

Know-how transferability within firm boundaries

Where TC is primarily concerned with the cost of knowledge transfer between two actors, arising from the potential for opportunism by a partner, OC is also concerned with knowledge transfer within a single actor's boundaries. From this perspective, a firm's know-how is experientially embedded in its routines and is largely firm and context-specific. The discussion above dealt with the firm specificity of knowledge and, associatedly, imperfect imitability. Another issue is that of the context specificity of the firm's knowledge and, associatedly, imperfect mobility. This affects the transferability of routines within the organization but across different operating contexts.

The internalization perspective fails to address this context specificity of know-how. TC logic reasons that poor separability of the underlying components of the know-how increases the costs of transfer to a partner and consequently results in a preference for internalization (Teece, 1981). Besides the buyer uncertainty problem, the difficulty in observation, measurement and contractual specification when know-how is tacit increases the potential for opportunistic behavior and hence raises the TC. This assumes, however, that such know-how preserves its rent-generating properties, and consequent value, when transferred through internal channels. The OC perspective questions this assumption and argues that a firm's know-how could suffer erosion of rent-generating potential, and consequent value, due to weak transferability and imperfect replicability in a new context (Forsgren, 1989), thus weakening its competitive advantage. Therefore, internalization in order to minimize the cost of transacting may lower TC but could also lower the rent-generating ability of the know-how, thus lowering overall value. In other words, in order to maximize overall value, the benefits of keeping the transaction within the firm to efficiently exploit the firm-specific advantage needs to be balanced against the costs of efficiency losses and reduced effectiveness due to weak transferability.

In his OLI framework, Dunning (1988) has discussed the importance of locational variables in foreign investment decisions. My treatment here of the locational effect has a subtle, though important, change in emphasis from that of Dunning. Whereas he emphasized the advantage that a particular foreign location may provide, in combination with the firm's ownership advantage, in order to create value, I emphasize the difficulties present which may weaken the rent-earning capability, and consequent value, of a firm's existing know-how. Basically, differences between home and host contexts erode the appropriateness and applicability of a firm's routines. Furthermore, they increase both implementation and adaptation costs. The net effect can be a decrease in the overall value of the know-how. In such cases, a firm may well prefer collaborative modes. In this line of argument, the cost of developing and deploying requisite capabilities in-house becomes critical since 'the choice of mode (e.g., licensing, market, direct investment) is influenced by the costs of replicating this knowledge within the firm relative to a market transaction' (Kogut, 1992: 22). Therefore, *the critical issue regarding* *the form of ownership is not failure of the market, but, rather, failure of the hierarchy in undertaking a particular product-market activity*. Once again, the assumption of opportunism is not required. It is the bounded rationality of the firm that drives the mode choice.

As in the case of firm know-how, market knowledge has both general (or generic) and more specific (or embedded) components (Johanson and Vahlne, 1977). The latter refers to the idiosyncratic ways of doing business in a country. The need for and value of context-specific routines increases with the significance of the embedded component of the market know-how for doing business in the particular host context, i.e., when the embedded-to-generic ratio of market knowledge (E/G_M) is high. This is the locational effect. When the locational effect is strong, the unique value of firm know-how tends to erode. Basically, due to concerns regarding value erosion as a result of imperfect mobility, a high E/G_M tends to result in a greater preference for collaboration.

Proposition 2: In the exploitation of an existing advantage, a high potential for erosion in the value of a firm's know-how due to the locational effect will result in a greater preference for collaboration.

The above logic reasoned why TC and OC can diverge in their overseas ownership mode preferences. This divergence in preferences largely revolves around the implicit assumption of the former that there is full preservation of value of a firm's know-how when it is internalized in order to minimize the TC associated with opportunism by a partner. However, such divergence need not always be the case. Collaboration in the presence of tacit know-how has been explained by TC theorists mainly with respect to equity JVs (Hennart, 1988). The argument is that, in the case of tacit know-how, collaborations in the form of equity JVs can be the preferred mode when both the respective product know-how and the knowledge of the market are embedded, i.e., there are tacit knowledge flows in both directions. Here, a JV is deemed to be appropriate and can be the TC minimizing organizational form since shared ownership aligns the incentives of the partners and locks them into mutual hostage positions.[6]

Clearly, in line with the theory, this TC-based explanation for JVs is driven by opportunism-related concerns. An OC-based reinterpretation of results of past empirical research using TC logic is both illustrative and informative. For example, Gomes-Casseres (1989) found that firms with more localized strategies had a preference for joint ventures while firms pursuing a global strategy, as measured by the percentage of intrasystem sales to total sales, had a preference for subsidiaries over joint ventures. The argument here is that, under global strategies, respective pursuit of localized and global optimization by the local partner and the multinational firm results in a high conflict of interest. This increases the TC and makes internalization more efficient. The OC argument here would be that, in such a case, firm routines do not need to be as consonant with the host country market as in the case of more localized strategies since the output of the operation is geared more towards the rest of the firm rather than the local market. In other words, the locational effect is low. Since the operation is relatively divorced from the local context and the market embeddedness is low, the issue of weak applicability of a firm's routines is not as critical here. As a result, loss of value due to utilization of inappropriate routines is not a major consideration.

Once again, the primary issue from the OC perspective is fundamentally different from the TC one. It shifts the focal concern from the extent of TC saved or circumvented by not conducting the transaction through the market mechanism to the extent of value, in terms of overall rent-generating capacity, sacrificed by conducting the transaction within the firm.

Juxtaposing know-how transferability within and across boundaries, we can say that the more embedded the underlying capability is within the firm or, alternatively, the greater is the firm specificity of the know-how (a high E/G_F) and the resultant ownership effect, the greater the potential for value erosion, or reduction in rent-generating potential, in transferring to a partner. The more embedded the capabilities are in the market

[6] Note, however, that the reliance on ownership precludes this logic from being applied to nonequity forms of collaboration in the case of bilateral tacit flows of know-how.

context or, alternatively, the greater is the context specificity of the know-how (a high E/G_M) and the resultant locational effect, the more the potential for value erosion in transfer within the firm. When the know-how is both firm- and context-embedded, the trade-off between the two kinds of value erosion will determine the mode of entry decision. Differently put:

> *Proposition 3a: In the exploitation of an existing advantage, where the potential for erosion in the value of a firm's know-how due to the ownership effect is greater than that due to the locational effect, i.e., $E/G_F > E/G_M$, there will be a greater preference for internalization.*

Conversely:

> *Proposition 3b: In the exploitation of an existing advantage, where the potential for erosion in the value of a firm's know-how due to the locational effect is greater than that due to the ownership effect, i.e., $E/G_M > E/G_F$, there will be a greater preference for collaboration.*

Let me illustrate the above through the example of sociocultural distance. Some studies (Gatignon and Anderson, 1988; Gomes-Casseres, 1989) have found a preference for collaborations with high sociocultural distance, while others (Bivens and Lovell, 1966) argue the opposite. Although Anderson and Gatignon (1986) attempt to explain the effect of sociocultural distance through transaction cost logic, they themselves acknowledge that the sociocultural distance argument is 'not central to transaction cost economics' (Gatignon and Anderson, 1988: 311). The arguments 'are only awkwardly incorporated into a theory of transaction costs and internalization due to market failure' and organizational capability logic seems more appropriate (Kogut 1992: 21). From the OC perspective, as explained above, when the sociocultural distance is high, alien mores and codes of communication make a firm's management techniques and procedures less appropriate (Johanson and Vahlne, 1977; Carlson, 1974). With the in-house transfer of know-how being more fraught with problems and consequent costs, the value inherent in the know-how would tend to erode and dissipate. This increases the preference for collaborative modes.

At the same time, there is a trade-off involved which needs to be recognized. In a situation of high sociocultural distance, a partner's capabilities might be limited or routines substantially different due to the different work context, which would result in an inability to absorb and exploit the know-how efficiently. In such cases, superior capabilities of the multinational firm with respect to management of its knowledge-based assets would be seen to yield greater rents instead of being dissipated due to the inadequacy of a partner's ability or incompatibility of his routines. This would result in keeping the transaction within the firm.

The trade-off between the ownership and location effect in terms of erosion in the value of a firm's know-how provides some insight into why empirical investigation into the effect of sociocultural distance on entry mode preferences has yielded ambivalent results. In a similar vein, this trade-off also helps explain why some studies (e.g., Gatignon and Anderson, 1988; Davidson and McFetridge, 1985; Kim and Hwang, 1992) have found support for the argument that the level of tacitness of the firm's know-how results in a preference for subsidiaries while others have found that this had the reverse or no influence (Swedenborg, 1979; Lall and Siddharthan, 1982; Agarwal and Ramaswami, 1992).

Exploitation vs. development of advantage

The internalization perspective is concerned with efficient exploitation of an existing firm-specific advantage and TC minimization in the pursuit of this objective. This is overly restrictive in explaining firms' market entry behavior due to the perspective's static nature and its narrow focus. It is also less than optimal in the management of a firm's knowledge base under considerations of value, not just in terms of value erosion but also of its creation and enhancement. A delicate and dynamic balance between exploitation and development of capabilities is essential for continued success of the firm. Development of capabilities is more future-oriented and opportunity-seeking and has a greater emphasis on learning (Hedlund and Rolander, 1990; March, 1991). Development provides the potential for future value which can then be exploited while exploitation realizes this value and generates the resources for future development. Sole emphasis on exploitation without development can result in eventual depletion of an existing advantage while development without exploitation results in wasteful expenditure of resources without realizing the benefits from it.

The development–exploitation dynamic has important implications for the generation and management of information flows. These flows underlie the creation, sustenance and exploitation of a firm's advantage and, consequently, the continual earning of rents. This dynamic clearly differentiates the two perspectives. The focus on rent exploitation from the internalization perspective primarily emphasizes the key competencies of the center of the system, and information flowing outward from it. This ignores the reverse flow of information into the firm and detracts from the competencies throughout the system itself (Ghoshal, 1987). In this regard, the OC perspective is broader than the internalization perspective in its approach towards information management in that it encompasses both 'inside out' or capability deployment, as well as 'outside in' or capability development and 'in between' or capability diffusion. From OC logic, then, a particular operation can be seen in the light of an investment in a future position (Johanson and Mattsson, 1988), and the value of a particular organizational form can be conceived in terms of proffering a means for capability development, or securing an option for developing and exploiting future opportunities (Kogut, 1988). This need not coincide with being the least-cost mode.

Even leading proponents of internalization theory have recognized the limitations posed by the lack of dynamism in internalization theory (Buckley, 1988). Being basically static, the internalization perspective is limited in explaining firms' governance decisions since it treats each entry as a separate and discrete event, where TC needs to be minimized, and not part of a dynamic process (Johanson and Vahlne, 1990; Gulati, 1995; Ring and Van de Ven, 1992). Moreover, in the realm of international investment, the assumption of existence and exploitation of a firm-specific advantage in a foreign market, the preservation of which is necessary in order to overcome the disadvantage of not possessing local market knowledge, does not hold for a firm that has been present in a foreign market for a while and has thereby overcome the disadvantage of not being a local firm (Forsgren, 1989; Johanson and Mattsson, 1988). It is also of limited significance for highly internationalized firms which have accumulated a broader and deeper pool of knowledge and routines through operating in a variety of product-markets, and cultivated the mechanisms for their diffusion. Furthermore, in the light of the development–exploitation dynamic as explained above, even the assumption of efficient exploitation of an existing firm-specific advantage driving foreign market entry and entry mode decisions becomes tenuous.

The development–exploitation dynamic has a direct impact on governance mode decisions. Exploration or development would tend to be a larger and more critical component of firm activities in dynamic environments, characterized by short life cycles and rapid rates of technological change, than in more stable ones. In other words, the development–exploitation ratio would tend to be higher. In this regard, and in line with their respective orientations towards firm competitiveness, the TC and OC perspectives differ in their recommendations regarding the preferred extent of internalization in such environments. OC provides an alternative rationale which contradicts the TC rationale. For example, in the early volatile stages of the product life cycle, the buyer uncertainty problem is exacerbated since, with the knowledge not yet codified and the value not yet proven, the pricing of the transaction becomes especially acute and there is more scope for opportunism (Davidson and McFetridge, 1985; Hill *et al*., 1990). This increases the associated TC, resulting in a preference for internalization. From the OC view, however, firms tend to face more stringent constraints on their capabilities in dynamic environments because of bounded rationality. The capability constraint is exacerbated in the international domain, which adds an additional dimension to the set of capabilities needed. Here, collaborations would be considered to be valuable in order to enhance their capabilities and remain competitive. The advantage of multiple collaborations is not just that of hedging against a potential breakthrough but, rather, that each of a variety of alliances helps strengthen and diversify the knowledge base of the firm and provides a broader and more robust platform for developing new capabilities (Cohen and Levinthal, 1990).

Clearly, there is greater potential for and possibility of opportunistic behavior in uncertain environments due to difficulties in contracting. Moreover, the risks are higher since unintended knowledge spillovers can adversely impact newly emerging income streams and, consequently, can erode potential rents and the future value of the know-how. However, the very fact that collaborations are increasingly prevalent, even pervasive, especially in globally dynamic and knowledge-intensive industries (Hergert and Morris, 1988; Hagedoorn, 1993), seems to suggest that firms are willing to trade off some potential losses from opportunism for the opportunity to develop their capability base. This base then forms the basis for future value and is more critical to long-term survival than short-term TC minimization. There could also be a gamble here that, due to firm specificity and dynamism, the rate of spillover would be slower than the rate of accretion of know-how, leaving the firm a step ahead. Basically, in dynamic environments, the ownership advantage of the firm may not be sufficiently strong in and of itself for the creation and realization of future value, and may need to be augmented by that of another firm which correspondingly faces capability constraints. In such situations, capability-related considerations would tend to dominate TC-related ones.

> *Proposition 4: Where the development/exploitation ratio is high, operations where the underlying motivation is capability development for the generation and realization of future value will result in a greater preference for collaborations than operations motivated by economizing on TC.*

The basic point is that even if a firm preferred internalization, in-house development would not only tend to be imperfect but, additionally, learning costs of appropriate routines would be higher in terms of time, effort and economic resources. Furthermore, while in a static environment a firm could develop the needed capabilities and underlying routines, the rate of development may be too slow to remain competitive in a dynamic environment. In such environments, characterized by a high development–exploitation ratio, there will be a greater preference for collaborative modes. The value of collaborations here would be in terms of speedier development of capabilities. This argument is supported by Hagedoorn's (1993) finding that in high-tech industries the overwhelming majority of the collaborations were motivated by capability-related considerations under a long-term perspective and a desire to develop these rather than cost-economizing ones. These considerations were less relevant in more mature industries such as chemicals.

In the scenario above, bounded rationality considerations override concerns regarding opportunism. In line with this, the relevant consideration shifts from an assessment of the extent to which uncertainty in the environment influences the cost of transacting through the market to an assessment of (1) the extent to which the firm possesses the capabilities needed to generate and realize value and consequently remain competitive in a particular product-market domain, both now and in the future, and (2) in the presence of a capability constraint, what is the best vehicle for the development of such capabilities within an acceptable timeframe and costs.

This does not mean that firms are not concerned about TC. Clearly, as mentioned, firms make trade-offs between capability and TC-related considerations and can and do take steps to minimize damages from opportunism. However, TC-related concerns may well be reflected in the details of governance rather than the choice of organizational form itself. For example, in Boeing's collaboration with the Japanese for the 767, certain operations were clearly, contractually and mutually accepted as off limits to the latter (Moxon, Roehl, and Truitt, 1988). This reflects Kogut's (1988) suggestion that TC considerations may be especially useful in bilateral bargaining within a collaboration rather than in the decision to collaborate in order to minimize on TC.

Orientation towards the benefits of collaborative activity

The focus on minimization of transaction costs becomes a major handicap in the way the TC/internalization perspective addresses interfirm relationships. With its focus on TC minimization, the benefit of a particular governance arrangement from the internalization perspective is viewed basically in terms of the reduction in TC (Hill and Kim, 1988; Madhok, 1996a). On the other hand, from the OC point of view, the focus is not merely minimizing cost but, rather, maximizing the value realized from the investment.

Therefore, an entry into a product-market is viewed in terms of an investment in future value rather than just cost (Johanson and Vahlne, 1990). With respect to collaborations, this value could be measured not only in terms of more efficient exploitation but, more importantly, also in terms of contribution to knowledge stock which can be used for future exploitation.

The difference in orientation changes the basic approach towards the management of the transaction and the relationship within which it is embedded. To restate the point of emphasis, the dominant consideration is no longer TC minimization under considerations of opportunism but rather, given the bounded rationality of firms, the development and/or deployment of a firm's capabilities in the manner which generates the greatest value. This results in a less apprehensive stance towards collaborative activity, where protective safeguards are no longer the overriding principal concern.

This difference in orientation can result in different preferences with regard to governance mode. For example, with respect to asset-specific investments, the TC argument is that these engender interdependence, inhibit adaptability and increase a firm's vulnerability to opportunism unless the transaction can be supported by the appropriate level of safeguards. This, however, increases the cost of transacting, a situation which is clearly preferable to avoid—hence, internalization (Williamson, 1975). More recently, Williamson (1991) extended the TC framework to explicitly address collaborative forms, namely hybrids, and argued that hybrids have intermediate characteristics of adaptability, ordinally somewhere between markets and hierarchies. In line with TC theory, the argument is rooted in shared ownership, opportunism and TC economizing. However, recent empirical work by Dyer (1996) and Madhok (1995a), both of which involved interviews with managers, reveals that the linear relationship between asset specificity and organization form cannot be assumed and that the pattern of interaction in buyer–seller relationships is a major factor in their orientation towards asset-specific investments and organizational form. From the OC perspective, the fundamental transformation to a small numbers situation due to asset-specific investments can, instead of a negative to be avoided, create an incentive to harness the consequent interdependence for the creation and realization of synergistic value (Johanson and Mattsson, 1987; Zajac and Olsen, 1993). Furthermore, the frequent and specialized interaction as a result of the very interdependence provides scope for developing a more mutual orientation between two actors (Johanson and Mattsson, 1987; Dyer, 1996). Greater knowledge of each other through more willing information sharing facilitates mutual adaptation. This not only enables the firms to interact more intimately and develop and exploit the underlying synergies better but, furthermore, reduces TC through more efficient interaction (Johanson and Mattsson, 1987; Jarillo, 1988; Ring and Van de Ven, 1992; Madhok 1995a, 1995b). This in turn influences the governance mode calculus.

Even though Williamson (1995) in his most recent work unequivocally accepts that firms could deliberately invest in dedicated assets where there are net benefits in doing so, his argument is still primarily dominated by the ethos of protecting against opportunism through recourse to an adequate level of safeguards. The argument, at best, shifts the prevailing orientation from protecting the unilateral value of a firm's investment to protecting the potential value from synergistic complementary investments against deterioration, this being occasioned by mutual forbearance from opportunistic behavior. This argument fails to capture the ethos of creating and fully realizing the potential for synergistic value, which is facilitated through a more mutual orientation (Madhok, 1995b; Madhok and Tallman, 1996). In a relationship characterized at best by abstinence from opportunism, not only do firms incur higher safeguarding costs (Hill, 1990; Ring and Van de Ven, 1992) but, also, voluntary commitments towards the creation of value would tend to be more tentative.

Even when the two perspectives are convergent, as in the case of JVs for bilateral tacit knowledge flows (Hennart, 1988), the underlying motivation under OC reasoning (for forming a JV) is not the containment of TC through a mutual hostage situation and incentive alignment as a result of equity sharing but, rather, an opportunity to better understand the capabilities underlying targeted areas of activity. In fact, if knowledge were so tacit, then by definition gains from opportunistic action would be marginal since the potential for rents cannot be fully exploited without the tacit knowledge of the other. From the

OC perspective, then, collaborations are seen as a useful vehicle for knowledge deployment and enhancement, a source of value rather than just cost. In line with this, the OC argument approaches the transaction in a much broader and more diffused manner than the internalization perspective. Where TC focuses narrowly on the contracted transfer of the know-how at the boundary interface, the OC perspective goes beyond the contracted transfer of a particular technology to a deeper comprehension of the relevant knowledge (Inkpen and Killing, 1991; Hamel, 1991) through understanding of the surrounding routines, or support infrastructure, themselves, such as what kinds of management systems they use or how they cultivate relationships. The difference in orientation from just cost to value changes the stance toward collaborative activity. Basically:

> *Proposition 5: An operation motivated by value-based considerations will result in both a greater proclivity towards collaborating as well as a more positive stance towards collaborations than one motivated by TC economizing considerations.*

In essence, given a decision to collaborate, the focus shifts from TC minimization and protective safeguards, which can hinder value creation, to the manner in which the firm can best create and realize value through such collaborations. This in turn has implications with respect to ownership mode decisions.

In sum, in this section, I have compared various issues pertaining to the management of know-how, in terms of erosion and enhancement, and the associated cost and value considerations. In doing so, I explained at some length the logic of OC in informing ownership mode choices. The theoretical lens of TC and OC both lead to the same prediction in the case of Proposition 1. In other cases, they may or may not agree. However, recent empirical findings and casual observation (e.g., popularity of collaborations) seem to support OC-based explanations. If OC-based explanations are able to explain ownership mode preferences more generally, i.e., both those that can be explained under TC-based logic and those that TC-based logic faces difficulty in explaining, then it must be considered to be theoretically more robust.

Clearly, the significance of OC-related considerations in determining the ownership mode choice will vary across circumstances. The potential for value erosion or the need for value enhancement depends on both firm and partner characteristics as well as the product-market environment that the firm operates in. With regard to firm characteristics, the nature and pattern of experience in operating in a particular product-market is important. Past experience in the particular product-market, or in closely related ones, contributes to a firm's capabilities in operating in such markets. A related and important issue in this regard is the firm's internal structure and management mechanisms. For example, a federated structure would be much less likely to enjoy the benefits of diverse and varied experience by its component units, and the added value associated with this, than would a network structure (Bartlett and Ghoshal, 1989). In exploiting a particular advantage, therefore, the stronger ownership effect and weaker locational effect would tend to result in firms with the former kind of structure being somewhat less prone towards collaborating than the former.

Another important issue is the particular product-market of concern. First, the product-market environment would influence the extent to which operating routines across countries may be similar or different. For example, routines for manufacturing semiconductor chips may not vary much across countries. On the other hand, food products would be more market-embedded, resulting in greater potential for value erosion when relying solely on internal firm routines. Second, more mature industries would tend to be characterized by wider diffusion of know-how than newer ones. In such a case, intrinsic differences between capabilities of firms would be less serious an issue and may alleviate to some extent concerns about value erosion. In a similar vein, such concerns would tend to be greater in the case of knowledge-intensive products than more commodity-like ones. A third important product-market characteristic is the dynamism of the relevant environment. The firm's past pattern of experience, as well as the nature and rate of change in the product-market environment, determines the capability gap faced by the firm, while the extent of competition influences the time available to fill the gap.

A third issue is that of the capabilities of the partner. Partner capabilities could be rooted both in the country of operation as well as in the individual firm's sophistication, and directly affect the extent of value erosion on transfer or the value enhancement as a result of synergistic complementarities. This becomes especially important in newer and knowledge-intensive industries.

ASSESSMENT AND IMPLICATIONS FOR THE MANAGEMENT OF FIRM BOUNDARIES

The OC perspective is an interesting and potentially powerful alternative to the focus of the internalization perspective in the choice of governance mode decision. In the previous section, this paper made the argument that the choice of market entry modes by firms is based not just on transaction characteristics but on those organizational capabilities already mastered and those sought by the firm. In doing so, issues pertaining to the transfer of knowledge within and across firm boundaries and the exploitation and enhancement of competitive advantage were closely examined. Also, an important distinction was made between the cost and the value aspects in the management of know-how.

The distinction between cost and value is an important one since the earning of rents through cost minimization alone is overly restrictive. In discussing the choice of governance form, Hennart uses cost-based reasoning and posits that the costs of relevance to the decision include transaction costs, costs associated with government intervention and costs associated with cultural differences (which he dismisses). He states:

> All the other reasons why costs differ between firms would seem to have *no* bearing on the choice of organizational form. For example, differences in costs that derive from possession of unreproducible assets do *not* affect the choice between integrating into that activity (FDI) or contracting with it, since they do *not* vary with changes in the governance structure. (1989: 216; emphasis added)

Clearly, I disagree. This logic ignores intrinsic differences in the capabilities of firms, and the value implications of the stated assets. In my opinion, this is an erroneous and improper framing of the issue.

A major problem with TC logic is that it is 'overdetermined,' due to its assumption of opportunism (Kogut and Zander 1993: 629). The more central operative assumption from the OC perspective is not opportunism but bounded rationality on the part of firms in the management of their knowledge base. The presence of bounded rationality imposes constraints on firms' capabilities and makes the acquisition of such capabilities costly. The OC argument does not deny opportunism but, rather, questions its heretofore unquestioned primacy, and even necessity, in mode of governance decisions. Though Kogut and Zander (1993) pointed this out with respect to the multinational firm's know-how, their argument was limited to firms' relative efficiency *vis-à-vis* other firms in managing know-how, or the ownership effect (my Proposition 1). This neither recognizes explicitly that the ownership effect can be seriously eroded by the locational effect nor does it address the issue of capability development other than through subsidiaries themselves. I have shown how bounded rationality considerations prevail more generally, both in the case of the ownership and location effect as well as for the exploitation and development of advantages.

Though TC- and OC-related considerations are both clearly relevant in the ownership mode decision, the literature has been dominated by TC-related arguments. In my opinion and in the light of the arguments made in this paper, TC logic, with its narrow focus on (transaction) cost minimization under the assumption of opportunism, is inadequate in and of itself in explaining multinational firm behavior and offers at best a partial lens on the foreign market entry decisions of firms. As I have argued elsewhere, the notion of the firm as a bundle of opportunism-driven cost-minimizing transactions is a shallow and incomplete basis for a theory of the firm, and of economic organization in general, since it basically ignores the essential notion of the firm as a bundle of knowledge (Madhok, 1996a). The central assumption of opportunism is unduly restrictive and biases and limits TC's analysis of the governance mode calculus. Capability-related considerations, pertaining to both the focal firm and the partner, are poorly addressed by TC reasoning. These considerations, both costs and benefits, have significant implications for the management of knowledge flows, both in terms of efficiency and effectiveness. A further limitation is TC's static approach which does not locate the decision within the evolutionary process of the firm. Firms do not just incur costs, they make investments which are the basis for future value. Though there is a trade-off between the cost of exploiting existing routines and developing new ones, both are important and necessary.

The sharp increase in collaborative activity, especially in globally dynamic and knowledge-intensive industries where TC tends to be high and difficult to determine *ex ante*, challenges simplistic TC arguments and demands greater attention to the process of capability development and deployment by firms. It also reflects a shift from a primarily inward-looking cost focus towards a more positive external orientation where firms compete on value. Here, a strategy of focusing on core value-laden capabilities, and leveraging these through the benefits of collaboration, may be a superior one in order to remain competitive. In fact, a response of internalization in the face of high TC may be inappropriate since it would sacrifice the benefits of focus and collaboration. From the OC perspective, the choice of organizational modes like market, hierarchy and hybrids needs to be considered not in terms of products and processes but in terms of activities needed to bridge the gap between objectives and capabilities (Dunning, 1988). In line with the notion of firms as repositories of productive knowledge (Demsetz, 1988), where knowledge resources are the primary concern, collaborations involve the restructuring of the information boundaries—both product and market-related—of the firm, and managing collaborative relationships is frequently a process of managing knowledge flows (Badaracco, 1991).

What the above discussion clearly suggests is that, more and more, ownership mode decisions are being influenced by issues pertaining to firms' capabilities rather than, or, in spite of TC. In line with this, firms are increasingly willing to make trade-offs and may be less concerned about opportunistic behavior and TC minimization than with knowledge development and positioning in order to remain competitive. In other words, *considerations related to efficiently and effectively deploying and developing a firm's capabilities under conditions of bounded rationality rather than those related to the level of TC and the efficiency of the transaction under the assumption of opportunism are increasingly critical in determining the boundaries of the firm* and, relatedly, its shape, size and scope. From this point of view, the focus shifts toward issues pertaining to failure of firms' hierarchies in undertaking a particular product-market activity under considerations of value rather than failure of markets due to opportunism and mere transaction costs. This is a fundamental shift in orientation with profound implications for governance mode decisions.

The importance of OC in influencing firms' entry mode decisions is consistent with Chandler's emphasis that 'an understanding of the changing boundaries of the firm required an awareness of the specific capabilities of the firm' (1992: 89). It is important to note though that OC- and TC-related concerns can be interdependent and that firm characteristics themselves influence the level and significance of TC faced or perceived by firms in contractual relations. Otherwise put, heterogeneity across firms results in their facing different levels of TC in undertaking transactions with similar characteristics. This in turn has implications for entry decisions.

The examples of experience and size are illustrative. A closely related aspect of international experience is the transfer of know-how internationally. Studies (Teece, 1976; Davidson and McFetridge, 1985) have found that prior entries and know-how transfer through a partner increased the probability of subsequent transfers through similar mechanisms. This can be explained by the development and refinement of routines for the organization and management of transactions across firm boundaries (Westney, 1988; Mody, 1993; Tallman and Shenkar, 1994). With more experience at managing relationships, mechanisms for transfer and learning become routinized, making management of the relationship and ingestion of external information easier. Such routines reduce the level of TC faced in subsequent collaborations and lower barriers to formation of less internalized governance modes. A prominent example of a firm which has developed the expertise to effectively manage and benefit from its wide network of collaborative relationships, and therefore displays a propensity for doing so, is Corning (see Corning: A network of alliances—HBS Case No. 391-102).

Another common attribute of firm heterogeneity is size. Clearly, size matters. Large firms tend to have more slack than smaller firms and are more able and willing to commit substantial resources for the purposes of exploration and capability development. Also, they tend to be involved in a more diverse set of activities and product-market environments than smaller firms. With more slack and multiple technological cores, large firms tend to be less concerned about leakage, especially to smaller partners (Doz, 1988), and are more concerned with overall competitive positioning than with the TC associated with any one collaboration (Osborn and Baughn, 1990). Here, the dyadic interaction with a partner may be viewed not in terms of localized efficiency through TC minimization, which may be suboptimal for the firm as a whole, but in terms of contributing to its capabilities in global competition.

Clearly, what the above examples show is not that transaction costs are not important but that the level of TC faced by a firm is not independent of the organizational capabilities of the firm. A more complete understanding of firm boundaries needs to address both perspectives and recognize their complementarities, contradictions, interdependence and trade-offs.

The OC perspective is an essential complement to the internalization perspective. The shift in focus from market failure to organizational capabilities changes the level of analysis and has significant research implications, both in terms of the investigative framework as well as the focus of research. For example, there is a need to pay more specific attention to various considerations pertinent to the management of value inherent in a firm's knowledge base. Nevertheless, in spite of the increasing importance of OC, research on the mode of foreign market entry in the past decade has tended to focus to a large extent on transaction cost-related issues (e.g., Gomes-Casseres, 1989; Davidson and McFetridge, 1985; Gatignon and Anderson, 1988) and has tended to lag behind the structural shift occurring in the business world due to globalization and technological dynamism, with its consequent impact on competitive dynamics and the capabilities of firms.

That empirical research on the OC perspective has been somewhat limited, especially relative to TC, is but to be expected given that the perspective has only recently gained prominence and has been attracting concerted research attention for barely a decade, most of which has been dedicated to conceptual development. Yet, both earlier and more recent research (Collis, 1991; Tallman, 1991; Chang, 1995) on foreign market entry from the OC perspective has found empirical support for OC-based arguments. Moreover, in contrast to the TC studies on entry mode, much of the OC-related research, especially the ongoing Scandinavian stream, is based on observations of a small number of firms over time and on information provided by managers themselves. In this sense, they are closer to the phenomenon of interest than the TC studies on the topic and perhaps of more relevance and meaning to management. In fact, my interviews with managers (Madhok, 1995a, 1996b) revealed a decidedly weak level of concern over opportunism, especially in light of the importance accorded to it in TC theory, and a predominant emphasis on the benefits of collaboration rather than cost.

The paucity in research is probably also exacerbated by the difficulty of measurement. For example, the value embedded in a firm's capabilities can be more of a challenge to accurately measure than the costs of transacting. In fact, even TC-based research was limited in its early years due to measurement difficulties. Typically, in order to get around the problem of measurement, experience has been used as a proxy for the presence or absence of capabilities. Clearly, in spite of the theoretical promise shown by the OC perspective, more ambitious efforts towards more careful and sophisticated measurement are necessary in order to offer empirical validity for its relevance. Until researchers get a handle on measuring characteristics like imitability, ambiguity and, in general, embeddedness, and the value associated with these characteristics, progress in the field will remain somewhat constrained.

I have suggested some contingencies, in terms of firm, partner and product-market characteristics, which may influence the generation and erosion of value. These and other contingencies need to be carefully investigated. I have also suggested that firms make trade-offs: between value and cost considerations, between the ownership and location effects, between capability exploitation and development, between TC and capability-related considerations. When are such trade-offs made? Under what circumstances? How are they managed? These are important research questions worthy of immediate research attention.

I hope this paper provokes further thought in this regard.

Since the shift in emphasis from opportunism to bounded rationality and from cost to value radically and fundamentally changes the approach towards the analysis of boundary decisions, the OC perspective also has major managerial implications. First, it demands a careful scrutiny of the manner in which a firm manages its knowledge base for the purpose of the sustained earning of rents. Second, boundary decisions made in the light of the OC perspective compel firms to recognize the limits to their (and other firms') capabilities and consequently focus on what they are able to do well, build upon it, and, if need be, complement this through collaborations with others who focus accordingly on their strengths, i.e., a strategy of specialization and interdependence rather than self-reliance. Such collaborations can be valuable and even essential in order to remain competitive. In fact, given the increasing capability constraints confronted by firms in today's business environment, internalization in order to maintain competitiveness through the TC economizing organizational form may paradoxically erode competitivenes. This is so because the logic implicitly assumes that the firm has the capabilities to conduct the activity internally in a competitive manner (which in turn implicitly assumes a rationality which is less bounded for production than for transactional purposes), an increasingly dubious assumption given the increasing technological complexity and intense nature of competition today. Third, the shift in frame from cost to value alters the cognitive orientation towards collaborations. It suggests that greater attention needs to be paid towards the management of the relationship itself in order to reduce the costs and realize the gains from it. In contrasting it to TC, the basic orientation here could be described more appropriately as a prudent and cautious rather than a suspicious one.

CONCLUDING REMARKS

In conclusion, whereas the implicit default mode in TC theory is the market, failure of which due to transaction characteristics results in more hierarchical forms of governance, the implicit default mode for OC is the hierarchy, failure of which due to capability constraints results in more market-like forms of governance. This is an important shift in orientation. I contend that the value-based logic of the OC perspective offers a more powerful, theoretically more robust and, generally, more realistic explanation of firms' market entry decisions than TC/internalization theory. This is so for the following reasons. First, it is able to explain as much as TC-driven logic with respect to governance choices pertaining to know-how transfer and, more generally, to the management of a firm's knowledge base. Second, it is able to explain governance decisions which TC has some difficulty in explaining. Third, its dynamic nature makes it more suitable to explain modern economic activity than the rather static and structural perspective of TC reasoning. As a result, it seems to be a more accurate explanator of the recent explosive increase of interfirm collaborations, both national and international. Finally, it can do the above with more parsimonious and less restrictive assumptions than TC logic. Its explanations are independent of opportunism, which may or may not exist. Where it does exist, either it is superfluous or, alternatively, the related concerns are traded off for longer-term benefits governed by value-driven considerations.

I would like to emphasize that I do not question TC theory itself, which is undoubtedly a useful lens to understand the organization of economic activity. What I do question is the tendency of researchers to embrace the TC framework for virtually any and all boundary decisions. A more prudent approach would be to critically examine and question some of the assumptions, both direct—opportunism, exploitation of existing advantage—and indirect—preservation of the value of know-how across locational contexts—underlying the particular boundary phenomenon of interest, in this case boundary decisions pertaining to foreign market entry, to assess the extent of its applicability. An interesting and somewhat provocative question that can be posed in the context of this paper is that if, as suggested, TC is more applicable in guiding the details of governance rather than the choice of form *per se*, could we researchers in our zeal be, at times, misapplying the framework to the latter arena? Should we be refocusing ourselves in this regard and redirecting our efforts towards the management of collaborative relationships in order to create and/or realize the potential value rather than proposing to avoid entering into them in the presence of high TC?

I would like to close with two comments. First, though it is quite clear that OC arguments are especially pertinent in more dynamic environments, it is worth noting that, in today's fast-paced and knowledge-based economy, even so-called static environments are becoming increasingly dynamic and firms in such environments are being forced to compete not on the basis of cost but on overall value (D'Aveni, 1994). Second, although this paper purports to deal with foreign market entry, which provided a vehicle for explicating many of the arguments, it is clear that the key issues discussed are, with minor adaptations, both relevant and applicable to firms' boundary decisions more broadly. This extends the generalizability of the arguments.

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