A RESOURCE-BASED TELEOLOGICAL ANALYSIS OF THE INTERNATIONALIZATION PROCESS *

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Abstract

We study the process models underlying the internationalization process of the firm. We integrate previous explanations of the internationalization process (product life cycle, incremental, innovation-related, and evolutionary structure) within a general framework and discuss the emergent teleological process view of internationalization. In this view, which builds on the resource-based theory of firm growth, the firm extends into foreign markets in order to achieve an objective, value creation, through the use or development of resources, and selects the methods and modes that enable this. We illustrate the teleological process through analysis of the internationalization process of the Mexican cement firm Cemex.

(100 words)

Key words: internationalization process, teleology, resource-based theory, international management

How do companies internationalize? This question is at the core of the international management literature and of studies within this field of the operations of firms in different countries. The objective of this paper is to shed light on this question. Internationalization is the process of "increasing involvement in international operations" (Welch and Luostarinen, 1988: 360), where the firm transfers products, services and resources across countries, and is thus required to select which countries to operate in and the mode of operation (Andersen, 1997: 29). The analysis of internationalization has generated an extensive stream of research. This research has focused primarily on the entry of the firm into the country through foreign direct investment (FDI) (for a recent review of the literature see Dunning, 2001), and the transformation of the organization, particularly its structure and processes (for a recent review of the literature see Westney and Zaheer, 2001). However, the process of internationalization, that is, the manner in which the firm alters its involvement in international operations over time, including not only investments but also trade, has been subject to fewer analyses, and there are disparities in the findings that would benefit from reexamination.

Although there are several models of the internationalization process in the literature (life cycle, incremental, innovation-related, and evolutionary structure), the most influential model has been the incremental internationalization model (Johanson and Valhne, 1977; Johanson and Wiedersheim-Paul, 1975), or Uppsala model, developed over three decades ago by researchers at Uppsala University in Sweden; however, this model may require revision. The model, which follows a behavioral economics approach (Cyert and March, 1963), argues for an incremental internationalization process, where the company expands into foreign markets as it learns the requirements for international operations through trial-and-error (Johanson and Valhne, 1990). Although the model has been refined in later studies (Johanson and Valhne, 1990; Eriksson, Johanson, Majkgard, and Sharma, 1997), empirical studies have yielded mixed support. Some studies find that firms follow a gradual internationalization process (Eriksson, Johanson, Majkgard, and Sharma, 1997; Kwon and Hu, 1995; Welch and Luostarien, 1988; Young, Huang, and McDermott, 1996) while others find no support for the model (Benito and Gripsrud, 1992; Fina and Rugman, 1996; Millington and Bayliss, 1990; Sullivan and Bauerschmidt, 1990; Turnbull, 1987). Additionally, there is increasing empirical evidence that does not fit within the model (Barkema and Drogendijk, 2001; Oviatt and McDougall, 1994, 1997). Moreover, the model has been subject to criticism that it does not consider the market and economic environment, that it is limited to the initial stages of internationalization, that it is overly deterministic, and that it does not consider other modes of development such as acquisitions (Andersen, 1993, 1997; Melin, 1992). Furthermore, and more importantly in the context of this paper, it is not clear which process model of organizational change is used; it appears at times to follow a life cycle process and at other times to follow a teleological process (Forsgren, 2002). In summary, there is growing concern with the incremental internationalization process model. A reexamination of the process is clearly needed.

We recast the internationalization process under an alternative theoretical light, the resource-based theory of firm growth (Penrose, 1959) in its recent application to international management (Kogut and Zander, 1993; Madhok, 1997; Peng, 2001; Tallman, 1991). In this paper we make explicit the teleological process model or organizational change underlying the resource-based theory, which allows us to generate a better understanding of the internationalization process. We argue that the internationalization of the firm is based on the search for the creation of value (Moran and Ghoshal, 1999) through the development, transfer and use of resources in and across countries. This objective, the creation of value, guides the transformation of the firm's international operations. Therefore, there is no *a priori* prescribed manner to undertake the internationalization of the firm, but rather a set of principles that guides the evaluation of the actions of the firm (Van de Ven and Poole, 1995) and the possibility of multiple, rather than merely unitary, progression (Van de Ven, 1992). Thus, although we agree with the underlying principles of the incremental internationalization process, specifically the discussion of the generation of knowledge through internal development (Johanson and Vahlne, 1977), we depart from the life cycle approach taken within this model to explain the internationalization process (Forsgren, 2002), its claim that internationalization occurs through trial-and-error (Eriksson, Johanson, Majkard, and Sharma, 2000: 29), and the fact that the model does not include strategic decision-making (Johanson and Valhne, 1990: 12).

We illustrate our arguments that the internationalization process is teleological through the analysis of the internationalization process of Cemex, a Mexican cement firm that began as a domestic producer and became the third largest cement producer in the world in less than a decade. The study of this firm illustrates the usefulness of the resource-based approach and a teleological process argument for understanding the internationalization process.

The remainder of the paper is organized as follows. In the next section the different explanations of the internationalization process are reviewed, highlighting the assumptions about the theory of process underlying each of these explanations. We then extend the resource-based theory to the internationalization of the firm, explaining how this theory generates a teleological explanation of the internationalization process. Next, we present the internationalization process of Cemex as an illustration of the resource-based theory and associated teleological account. We conclude by discussing the implications of the arguments presented here.

THE INTERNATIONALIZATION PROCESS AND PROCESS MODELS

There are four main process models of organizational change (Van de Ven, 1992; Van de Ven and Poole, 1995): life cycle, evolutionary, dialectic, or teleological. Life cycle models present a sequence of linear and irreversible stages that enable the entity to grow as a function of its development or of characteristics present since its inception. Evolutionary models argue for selection among competitors within a population according to the sequence of variation, selection, and retention events. Dialectical models view the transformation of the entity as part of the conflict among forces, and the confrontation of the thesis and antithesis, which is solved through the synthesis. Finally, teleological models argue for the purposeful transformation of the entity to achieve a desired objective through the establishment of a goal, implementation, and the adaptation of means in order to achieve the goal. Table 1 presents these four process models of organizational change according to their prescription of a manner of change and to the purposefulness of the change.

The historical review of the different internationalization process models enables us to identify their underlying process model of organizational change. We now discuss the existing internationalization process models: the product cycle model (Vernon, 1966), the innovation-related model (Bilkey and Tesar, 1977; Cavusgil, 1980; Czinkota, 1982; Reid, 1981), the incremental internationalization model (Johanson and Valhne, 1977; Johanson and Wiedersheim-Paul, 1975), and the evolutionary structure model (Stopford and Wells, 1972; Bartlett and Ghoshal, 1989). We explain the basis for their classification into one of the four models of organizational change illustrated in Table 1. An analysis demonstrates the possibility of developing a teleological explanation of the internationalization process, which we do in the next section by applying the resource-based theory to the internationalization process.

Insert Table 1 here

The earliest account of the internationalization process was the product cycle model (Vernon, 1966, 1979), which is a life-cycle explanation of the process of organizational change. The internationalization process of the firm is considered part of the life cycle of the product (Vernon, 1966). Sales and production move across countries based on the stages of the product: introduction, growth, maturity, and decline. In the introduction stage, the firm develops an innovation and introduces the product in the home country, undertaking some exports in order to gain economies of scale. In the growth stage, the firm exports and later develops production facilities as demand builds in other countries. In the maturity stage, the firm moves production to countries with low-cost labor as markets saturate and the product standardizes. Finally, in the decline stage, the firm closes production in the home country as demand disappears and imports from less developed economies the now-standardized product. The author of the original paper propounding this theory later revised the model in light of developments in international business such as the shortening of life cycles or the existence of multinational enterprises that move innovations across markets, limiting the scope of its applicability (Vernon, 1979). The model, however, is more an account of the movement of production across countries at the industry level rather than an account of the internationalization of the firm (Melin, 1992).

The incremental internationalization process model (Johanson and Valne, 1977; Johanson and Wiedersheim-Paul, 1975) follows a life cycle process model of organizational change, including some teleological concepts (Forsgren, 2002). The firm internationalizes incrementally by increasing its international commitment in stages (no export activities, export via independent representatives (agents), sales/marketing subsidiary, and production/ manufacturing subsidiary) and gradually entering countries that are further away in terms of psychic distance (Johanson and Wiedersheim-Paul, 1975). The model has a strong life cycle view of the internationalization process (Forsgren, 2002), as it “expects that the internationalization process, once it has started, will tend to proceed regardless of whether strategic decisions in that direction are made or not” (Johanson and Valhne, 1990: 12). More specifically, “regarding the first establishment of sales subsidiaries, they do not seem to have been a step in a conscious and goal directed internationalization” (Johanson and Vahlne, 1977: 25). However, the model claims that the objective of the firm is to increase in value, thus apparently indicating a teleological process (Forsgren, 2002). Over time, the company builds the experiential knowledge necessary to compete in the market (Johanson and Vahlne, 1977), developing its internationalization effort on a trial-and-error basis (Eriksson, Johanson, Majkard, and Sharma, 2000: 29) through a cycle of interactions between state (market commitment and market knowledge) and change (commitment decisions and current activities) aspects (Johanson and Valhne, 1977; 1990). Nevertheless, although teleological notions would help improve the model, it is still primarily a life cycle model (Forsgren, 2002). Moreover, as indicated before, although the model has been further refined (Eriksson, Majkgard, and Sharma, 2000; Eriksson, Johanson, Majkard, and Sharma, 2000; Hadjikhani, 1997), it has been subject to the criticism that it is overly deterministic, that it does not consider the market and economic environment, that it is limited to the initial stages of internationalization, and that it does not consider other models of development, such as acquisitions (Andersen, 1993, 1997; Melin, 1992).

Innovation-related models (Bilkey and Tesar, 1977; Cavusgil, 1980; Czinkota, 1982; Reid, 1981) are dialectical process models of organizational change. They argue for a view of internationalization as the adoption of an innovation in the firm. Similarly to incremental internationalization process researchers, they build on behavioral economics (Cyert and March, 1963), and argue that internationalization is the outcome of an information processing approach where the company alters attitudes and beliefs about foreign markets. The firm is initially uninterested in exporting. However, sporadic orders from external markets place demands on the attention of managers. As the firm starts exporting, the conflict between domestic-oriented managers and the demands of foreign markets increases. Over time, the firm revises its expectations regarding foreign markets and actively seeks internationalization. Thus, the battle between domestic and foreign markets for the attention of managers results in the transformation of attitudes. That is, the conflict between the existing thesis of managers focused on the domestic market and the antithesis of the demands of external markets is solved in the synthesis of internationalization. The transformation of managerial attitudes over time is reflected in the internationalization of the firm proceeding through several stages (which vary according to author), from firms that are not interested in foreign markets to firms that are highly involved in exporting. The models have been seen as a refinement of the incremental internationalization process, classifying firms according to characteristics rather than studying their internationalization over time, and they are seen as limited to the initial exporting effort rather than offering a complete account of the internationalization process (Andersen, 1993).

Evolutionary structure models (Stopford and Wells, 1972; Bartlett and Ghoshal, 1989) follow an evolutionary process model of organizational change, with some dialectical notions of transformation. The models attempt to account for the transformation of the organizational structure of the multinational enterprise (MNE) as the international operations of the firm increase in importance, moving from an international division to a product or area structure (Stopford and Wells, 1972). Once the firm is a large MNE, the structure might further evolve towards a transnational structure in order to take advantage of both the integration and the local responsiveness of the operations (Bartlett and Ghoshal, 1989). Later studies have analyzed the evolution of the structure in connection with the objectives of the firm (Malnight, 1995), with change among phases reflecting dialectical conflicts between the current organization of activities and emerging pressures. Although the models tend to not present an explicit evolutionary motor of transformation following the stages of variation, selection, and retention, they can be interpreted under this model of organizational change (Westney and Zaheer, 2001). The models are primarily focused on the transformation of the structure of the firm and the relationships among parts of the company as a whole, rather than the transformation of the underlying activities within each of the operations in different countries. Thus, they are not direct explanations of the internationalization process of the firm, but rather account for the transformation of the structure as internationalization occurs.

The application of the resource-based theory to the internationalization process, which will later be discussed in detail, follows a teleological process model or organizational change. The firm internationalizes in order to achieve an explicit objective, the creation of value, planning and taking the necessary steps to obtain that objective, and changing its actions over time as both it and its environment are transformed. It achieves this by developing, transferring, and using resources, especially knowledge, in and across countries (Kogut and Zander, 1993). It evaluates the motivations, methods, and modes of internationalization depending on their ability to achieve value based on the resource set of the firm (Madhok, 1997; Tallman, 1991). Although teleology stresses the purposiveness as a motor of change, it does not negate limits to action. The organization's environment and resources constraint what the entity can accomplish. Institutions and other actors in the environment embody some constraints. The entity does not override these constraints, but makes use of them to accomplish its purposes (Van de Ven and Poole, 1995). Thus, these arguments complement previous analyses that examined the dynamics of the foreign direct investment process (Chang, 1995; Chang and Rosenzweig, 2001; Kogut, 1983; Kogut and Chang, 1996) to consider not only investment but also trade as part of the internationalization process. Thus they highlight the process theory behind the international expansion of the firm within the resource-based explanation.

Solving the Paradox: Integrating Alternative Models of the Internationalization Process

The literature review emphasizes the richness and disparity in the various approaches to explaining the internationalization process. This disparity stems from their foundation on diverse process models of organizational change. The fragmentation of approaches provides an opportunity for integration, which could lead to a better understanding of the process of internationalization. Thus, we argue that it is possible to integrate the various models and “solve the paradox” that they present as alternative explanations for the same phenomenon (Poole and Van de Ven, 1989).

We integrate the alternative internationalization models by arguing that they apply to different levels of analysis. That is, they are “spatially” separated (Poole and Van de Ven, 1989: 566). Figure 1 illustrates their integration into a nested hierarchy of levels (Van de Ven and Grazman, 1999): the transformation of managerial attitudes in the innovation-related models, the transformation of the foreign operation in the incremental internationalization model, the transformation of the overall set of firm activities in the resource-based model, the transformation of overall firm structure in the evolutionary structure model, and the transformation of the location of production in the industry in the product cycle model.

Insert Figure 1 here

First, the innovation-related models apply at the level of managerial attitudes. The conflict between attention and external pressures is solved with the transformation of managers' attitudes towards the internationalization of the firm through the thesis-antithesis-synthesis process.

Second, the incremental internationalization model applies at the level of the operation of the firm in terms of the commitment to a particular market, as well as at the managerial level in terms of their knowledge and learning. Once the internationalization process starts, it follows a predetermined set of stages in a life cycle fashion that transforms the operation of the firm in the host country. The incremental approach enables managers to learn about foreign markets and develop the tacit knowledge that is necessary to operate abroad. Although the incremental internationalization model provides a criterion for selecting among countries (Johanson and Wiedersheim-Paul, 1975), the explanatory power of the model resides primarily at the level of the sequence of activities in the specific operation in the host country, rather than at the level of the overall operations of the firm. Most of the empirical literature has focused on testing the former level rather than the latter.

Third, the resource-based model applies at the level of the firm as a whole, as well as at the level of the different operations. The transformation of firm activities is guided by a search for the creation of value through a teleological process of plan-do-check-act, where the firm adapts its activities as the resources and competitive conditions match one another. This adaptation occurs both in the firm as a whole and in the different operations in each of the countries in which it operates. The creation of value in the firm leads to the selection of countries in which to operate, methods of operation, and connections among operations in the firm, while the creation of value in each specific foreign operation leads to the selection of methods of operation and the promotion of connections with other parts of the firm.

Fourth, the evolutionary structure model applies at the level of the company overall. The increase in international operations and in the pressure to integrate operations while benefiting from the responsiveness to local conditions induces the transformation of the overall structure of the firm, in order to promote linkages among operations and facilitate the transfer of resources, especially knowledge. Thus, structural evolution occurs at the level of the firm overall, rather than at the level of the particular operations. This approach is intimately connected to the resource-based model, as the transformations in strategy are tied to changes in the structure (Chandler, 1962).

Finally, the product cycle model claims that the transformation of production location at the industry level follows a life cycle model through the introduction-growth-maturity-decline stages. Thus, the movement of production into foreign markets applies not only to one firm in particular, but to its industry as a whole, as competitors follow similar predetermined moves of production within the life cycle of the product.

In summary, the alternative approaches to explaining the internationalization process can be integrated if they are viewed as explanations that apply at different levels of analysis, although such integration has its limits. A caveat on the integration of models is that such integration can only occur when considering internationalization processes motivated by the use of resources abroad, that is, when analyzing firms that have already developed ownership advantages that they use to enter foreign markets (Dunning, 1977; Hymer, 1976). The life cycle, incremental, and innovation-related, and to some extent the evolutionary structure and resource-based models, include implicitly the notion that the firm has already developed resources that can be used in other countries, such as technological innovations not available to domestic competitors in the foreign market. These resources facilitate the entry through foreign direct investment into foreign markets. However, the firm may also expand to develop resources or defend resources, as discussed below; these possibilities are explicitly addressed in the resource-based model. Thus, as well as applying both at the firm level and the foreign operation level, the resource-based explanation and its associated teleological explanation might have a broader scope of action than other models of the internationalization process, since they allow for a variety of motives for foreign expansion. This larger explanatory scope might lead to a synthesis that solves the paradox of the existence of different explanations for the same phenomenon (Poole and Van de Ven, 1989: 567).

THE RESOURCE-BASED TELEOLOGICAL ANALYSIS OF THE INTERNATIONALIZATION PROCESS

The application of the resource-based theory to the internationalization of the firm enables us to develop new insights into the internationalization process. The resource-based theory and its modern incarnation, the resource-based view (Wernerfelt, 1984), have emerged as an important explanation of firm behavior (Conner, 1991). Proponents of these theories argue that firms are composed of resources that managers and employees use in the activities of the company (Penrose, 1959). In this paper we define resources as tangible and intangible firm assets tied semi-permanently to the firm (Wernerfelt, 1984).

When considered from the point of view of the resource-based theory, the firm internationalizes for reasons related to its resource set, in an attempt to create value. The firm is a mechanism for the creation of value (Moran and Ghoshal, 1999) that complements the market, although it is superior to the market in the creation of resources, especially knowledge (Conner and Prahalad, 1996; Kogut and Zander, 1992, 1996; Nahapiet and Ghoshal, 1998). The expansion of the firm is undertaken in order to achieve value creation through the development, use, and transfer of resources across industries (Penrose, 1959) and, in the case of internationalization, across countries (Kogut and Zander, 1993).

Within the resource-based theory, the internationalization process of the firm is a teleological process of organizational change. The teleological transformation of the firm is based on the assumption that the "developing entity is purposeful and adaptive. It socially constructs an envisioned end state and selects from alternatives a course of action to reach it" (Van de Ven, 1992, pp. 178). Thus, the expansion of the firm into other countries is motivated by an overarching final objective, the creation of value. The different internationalization motivations, methods, and modes are evaluated in terms of their ability to achieve that objective. The process allows for the transformation of the firm as the environment changes, not assuming a necessary sequence of stages, but rather a set of standards and objectives by which to evaluate the actions and modify them accordingly (Van de Ven, 1992). Thus, we should expect an equifinality in the process of transformation rather than similarity in the transformation process. There are no predetermined stages that must be followed, but rather a set of possible paths between which the firm chooses based on the creation of value, taking into account its resource et and the conditions of the environment. The internationalization process requires a sequence of decisions about motivations, method, and modes.

The first choice to make is the motivation that impels the firm to expand its scope to foreign markets, which is related to the creation of value and the resource set of the firm. There are several possibilities: 1) the creation of value through the use of resources that have already been developed, transferring these resources to foreign markets; b) the creation of value through the development of resources abroad and their transferal back to the original market; or c) the creation of value through the defense of existing resources by moving abroad and following competitors or clients. Although we discuss them separately, these three motivations can be simultaneous drivers for involvement in foreign markets, and can change over time as the firm operates abroad (Chang and Rosenzweig, 2001; Madhok, 1997).

First, a firm internationalizes to create additional value by *using resources*. The company develops resources in one country to operate and achieve a competitive advantage and associated rents, and expands, in the case of internationalization to other countries, to obtain higher returns on the resources already developed (Penrose, 1959). To achieve this, the resources that are already developed must have three characteristics. First, they must be available in excess so that they can be used in the expansion (Chatterjee and Wernerfelt, 1991; Penrose, 1959), or alternatively they must not be consumed by use, as is the case, for example, with knowledge (Kogut and Zander, 1992). Second, they must be transferable to other countries (Kogut and Zander, 1993; Rugman and Verbeke, 1992), either directly, such as in licensing or investment, or indirectly, such as in products and services. Third, the resources, or their application in the manufacture of products and services, must be valued in the foreign market. The claim that international expansion is motivated by the desire to use resources tends to underlie the majority of the literature on internationalization, not only the resource-based literature, but also the internalization literature (Buckley and Casson, 1976; Dunning, 1977) and the transaction cost literature (Caves, 1982; Hennart, 1982; Rugman, 1981; Teece, 1986) where the firm is assumed to have some kind of advantage that leads it to enter foreign markets. However, this is not the only motivation for internationalization.

A second motivation for firms to internationalize is the desire to create value by *developing resources.* The firm operates in one country and expands into others in order to obtain access to existing resources that are in better conditions than in the home country. The access to these location resources, such as natural resources, efficiency, or strategic assets or capabilities (Dunning, 1993), helps the firm develop its own resources and competitive advantage. In some cases the resources that the firm needs are not available in the home country but exist only in certain locations, and the company has to seek them out, especially when they are unevenly distributed across the globe, as is the case, for example, for natural resources. In most other cases, the company internationalizes to obtain developed rather than endowed location resources that are in better conditions than in the home country. For example, the company may go abroad to obtain access to knowledge, either technological developments (Cantwell, 2001; Kuemmerle, 1999), or client preferences and trends (Kotabe, 2001). A company may also go abroad to seek out finance, not only access to foreign capital markets, but also the ability to reduce tax payments (Rugman and Eden, 1985). The firm benefits from the access to location resources abroad if they are in better conditions than in other locations, which in some cases might require complementary resources, and if it can also transfer them to other operations, which is not always possible (Rugman and Verbeke, 1992).

Third, a firm internationalizes to create value by *protecting resources*. In this case, the company follows the international moves of competitors (Knickerbocker, 1973) or clients, in order to avoid losing existing investments in resources in other locations. In the case where a company follows competitors, it internationalizes to prevent competitors from achieving higher returns on existing resources or access to advantageous foreign location resources. If competitors achieve an edge, this might lead to the loss of the advantage provided by the resources of the firm in its other locations. In the case where a company follows clients, it internationalizes to avoid losing the relationship with its clients, while also benefiting from expanding operations into foreign markets.

The second decision that must be taken, after the motivation for internationalization has been chosen, is the selection of the country into which to expand in order to generate value. Country selection depends on the motivation for the internationalization of the firm, which can vary according to the country, and on the characteristics of the country in terms of the institutional and competitive environments, which influence the ability of the firm to achieve its ultimate goal, value creation. For example, a firm that wants to develop technological resources would select countries with a developed technological infrastructure (Nelson, 1993).

The third choice that must be made, once the motivation for internationalization and the particular country have been selected, is the appropriate method of internationalization to enable value creation, trade or foreign direct investment. The selection between the two methods of internationalization would depend on the ability of the firm to transfer resources across countries, either directly within the firm using foreign direct investment (Kogut and Zander, 1993), or indirectly, using trade, through products that embody the advantages provided by the resources of the firm. Additional factors, such as the level of internationalization of the firm in other countries with similar conditions, would also influence method selection (Barkema and Vermeulen, 1998).

The fourth decision in the sequence is the selection of appropriate modes of internationalization (internal development, alliance to other firms, or purchase) to enable value creation. In addition to the motivation and methods chosen, selection of modes in FDI depends on both the characteristics of existing resources in the firm, taking into account their transferability across countries (Kogut and Zander, 1993; Rugman and Verbeke, 1992), their changes over time (Chang, 1995; Chang and Rosenzweig, 2001), or the need for additional resources (Hennart and Reddy, 1997), and on the characteristics of the environment, not only competitive (Hennart and Reddy, 1997) but also institutional conditions, such as culture (Kogut and Singh, 1988), and thus create value. Additionally, transaction cost considerations might influence the specific mode of internationalization (Madhok, 1997).

This sequence of decisions is reevaluated as the conditions of the competitive and institutional environments of foreign operations and the characteristics of the resources of the firm change. On the one hand, changes in the institutional or competitive environment alter the value that the firm might obtain from existing resources, thus inducing it to reevaluate the internationalization strategy, not only in terms of the activities undertaken in existing operations, but also the presence in the foreign market (Baden-Fuller and Stopford, 1991). In the most extreme case, the firm might choose to sever its commitment to the country and withdraw, either by divestment or closure (Mata & Portugal, 2000). On the other hand, changes in the resource set of the firm over time leads to the modification of the international operation (Birkinshaw and Hood, 1998; Chang, 1995). As the company develops resources, its relative competitive advantage changes, which enables it to alter its foreign operations.

THE INTERNATIONALIZATION PROCESS OF CEMEX

We illustrate the applicability of the teleological model underlying the resource-based theory of internationalization by analyzing the internationalization process of Cemex. We chose to analyze Cemex in part because the firm managed to internationalize very successfully, going from the twenty-eighth largest cement producer in the world to the third largest in less than a decade, and thus being subject to theoretical sampling (Yin, 1994).

Cemex was founded in 1906 as Cementos Mexicanos with the opening of a plant in northern Mexico. The transformation that enabled it to become the third largest cement firm in the world in the late 1990s started in Mexico in the late 1980s. It was initiated after a change in CEO in 1985, and was influenced by the transformation of the Mexican market in the 1980s. The transformation of the Mexican economy in the 1980s forced Cemex to reduce its costs. The Mexican government adopted a system of price controls in 1987 to combat inflation. Cement prices were capped well below international prices, resulting in a severe reduction in Cemex's profitability. In 1989, the new national administration placed greater emphasis on voluntary price controls, allowing Cemex to increase prices, although the government still monitored them. Complete price deregulation occurred in 1992. However, Cemex had been reducing costs, and by then its production costs were the lowest in North America. During this time, which saw the emergence of the North American Free Trade Agreement (NAFTA), which would reduce tariffs further and expand the market, Cemex invested heavily in automation and information technology (IT).

The development of IT in Cemex has been unusual among cement firms (The Economist, 2001; Ramírez Tamayo, 2001; Slywotzky and Morrison, 2000) and forms a key part of the explanation for its success in internationalizing. In 1987, Cemex began connecting its operations with the design and deployment of a satellite communications system called CemexNet, which allowed users to bypass Mexico's unreliable phone system. E-mail was implemented in 1991 (Dolan, 1998). In 1994, a team from Cemex visited the operations at Federal Express, Exxon, and the 911 emergency phone number centers in Houston to learn about sophisticated logistics from, according to CEO Zambrano, "places where systematically they handle what can't be predicted" (Merz, 1998; Slywotzky and Morrison, 2000). Continued investments in IT made

Cemex the leading user in the industry. The company derives four significant benefits from the intensive use of IT: reduced overhead, real-time information of all operations, improved service in the ready-mix segment, and easier absorption of acquisition targets.

The resource transformation achieved by Cemex was accompanied by the redefinition of its activities in Mexico. The firm divested non-cement activities and started a program of acquisitions of domestic competitors that allowed it to achieve domestic dominance. After reducing costs, implementing advanced information technologies, and controlling the domestic market through the acquisition of a string of smaller firms and the two largest competitors, Cemex moved abroad in earnest.

Internationalization Process

Cemex's initial involvement in international markets was in the United States. Cemex commenced internationalization in 1976 with exportation, and in 1986 set up distribution centers in collaboration with a local firm. Expansion into the United States made the most economic sense, since Cemex plants located in northern Mexico had a natural market for distribution that spanned across the border into the southern United States. Cemex deepened its distribution network in the late 1980s through a series of collaborations and acquisitions, exporting cement from Mexico due to its much lower production costs, which offset the transportation costs. Cemex's increasing commitment towards the United States was interrupted in 1990 when an antidumping order by the US International Trade Commission (ITC) imposed duties of 58 percent on its exports to the United States. In 1992, the General Agreement on Tariffs and Trade (GATT) found no injury to the US producers and requested the ITC to revoke the antidumping duties to Mexican producers. Nonetheless, in 1995, the US Department of Commerce increased duties to 62%. These measures induced the firm to continue its expansion in the United States by acquiring a production plant in 1994. In 2000, it bought the second largest cement firm, which had 12 manufacturing plants.

In 1992, Cemex surprised the global cement industry by acquiring Valenciana and Sanson, Spain's largest cement companies. With these acquisitions, Cemex increased its total capacity by 43 percent. The acquisitions enabled Cemex to enter the European Community before it became the European Union in 1993, when there was fear that it could become "fortress Europe", leaving Cemex outside this vast market. The Spanish market was similar to Mexico's in that bagged cement was one of the most important product segments.

Cemex continued its international expansion, mainly through acquisitions of ongoing operations. By 2001, it had made a total of 16 major acquisitions in different geographical markets and was producing in 33 countries and trading with about 60 (Cemex, 2001; Ramírez Tamayo, 2001). By this time it was the third largest cement producer, and the most efficient in terms of return on assets and operating margins (The Economist, 2001), being a leader in most of the markets in which it competed. Table 2 summarizes Cemex's internationalization process.

Insert Table 2 here

Analysis of Cemex's Internationalization: A Teleological Process

Cemex's internationalization process reflects a teleological process model of organizational change. First**,** the process of geographical expansion was done with one objective in mind, to increase value and reduce the firm's dependence on the Mexican market. That is, it was purposeful. The firm entered countries where it could create value in a strategic manner rather than as part of a trial-and-error process devoid of strategic content. CEO Zambrano refers to the 1980s as an uncertain time for Cemex that triggered a big push into foreign markets: "In the early 1980s, I learned a big lesson when I saw some companies here in Mexico falling. That's when I said I have to find which are the keys to success in a company like Cemex." The two keys he specified were "focus and size" (Dolan, 1998). On the major acquisitions in Spain, Zambrano at that time said that, "We had to become one of the biggest global companies… If we didn't, someone undoubtedly would have acquired us" (McCarthy, 1993: 27), and, "Had we not gone into Spain (at this time), we would be left out forever" (Sarathy, 1999:16). Zambrano also cited the acquisitions as a protective move against the possibility of a price war at home (McCarthy, 1993). The company transformed its operations in the home market, achieved domestic dominance through acquisitions, and became world-class in the internal handling of information through its investments in IT.

Second, the company did not follow a sequence of stages or incremental development of resources. It acquired the tangible resources necessary to produce in the foreign country, while transferring intangible resources (IT and operations knowledge) that had been developed in the domestic market in the course of the consolidation of its presence there. Cemex's top management expressed confidence in the firm's advantages throughout their internationalization process. After the first acquisition in Spain, Zambrano commented that, "For Spaniards the idea of a Mexican company coming to Spain and changing top management, 500 years after the conquest of Mexico was unthinkable. They said a Mexican company couldn't manage in Europe. But we increased our operating margin in Spain by more than three times in three years. We made the company much better than before, but also made it much better than our competitors in Europe" (Dombey, 1997: 36). Their confidence in their superior IT resources has also been evident. Jose Domene, the president of the international division, has said, "I am always surprised that our competitors have next to no computers. It means that the headquarters has only last month’s operating figures. I can look at last night’s at the touch of a button” (Dombey, 1997: 38). Hence, Cemex entered directly into markets through foreign direct investment, with the objective of controlling a large proportion of the market rather than expanding on a trial-and-error basis using exports first. However, the lack of incremental internationalization does not invalidate the theory that firms internationalize incrementally using internal development (Johanson and Valnhe, 1977). It suggests that the model presents a limited picture of the range of potential firm actions. The analyses of the internationalization processes within each country presented in Table 2 indicate that there were no incremental stages of involvement and that alternative methods of entry and expansion were used.

Finally, most countries were not chosen on the basis of the psychic distance (Johanson and Wiedersheim-Paul, 1975) and associated cultural distance (Kogut and Singh, 1988), but rather on the basis of the creation of value, based on the needs of the potential clients that Cemex could support. Entry into the United States suggests a familiarity with doing business there. For example, CEO Zambrano said in 1993 that, “You go to the Southern US cities and talk to the people there”; and “they are used to doing business with Mexicans, and their economies are highly linked to ours. Already, there is a regional mini-trade zone that has developed. Because of that, we treat Arizona’s markets much the same as those in Chihuahua; Baja’s as the same as Southern California; and Southern Texas’ the same as Monterrey. That’s the way we’ve been positioning ourselves in this part of the world’” (McCarthy, 1993: 27). Nevertheless, entry was primarily determined by economic considerations of proximity to the production plants rather than cultural ones. The economically viable distribution area for Cemex plants in northern Mexico led to the natural extension across the border into the southern United States. Ventures further north into the US heartland could only be accomplished with plants in the United States, as transportation costs from Mexico would make such distribution unprofitable.

Country selection was mainly driven by similarity to Mexico's economic and competitive conditions, rather than to its culture. The Mexican market is significantly different from other large developed markets. While most cement around the world is usually sold as a commodity, in Mexico a significant share of the cement sold is purchased in branded bags, since small contractors and individuals are responsible for much of the construction business. In the 1990s, Cemex estimated that about 75 percent of Mexican demand was from this retail sector. In 2000, Cemex total sales in this sector still comprised 65 percent (Cemex, 2000; Sarathy, 1999). Cemex's global expansion has focused on developing economies with high growth markets with existing or potential use of bagged cement, rather than a mainly bulk market; this enables Cemex to brand its products. "We like the demographics of the emerging market. They tend to have a very large proportion of young people - so they need homes. Infrastructure is not there, and it needs to be built," says Jose Domene, president of Cemex International Division (Dombey; 1997: 37). Thus, the expansion reflected a selection of countries where the firm could create value, moving across very different cultural backgrounds but with similar economic and institutional conditions. Hence, although the psychic distance and associated socio-cultural distance influence internationalization, these are not the primary determinants of country selection. The economic characteristics of the country are key, especially in terms of the level of development and the use of the product, which enable the firm to create value.

In summary, we argue that the process of internationalization is best understood as a teleological process, as the analysis of the internationalization process of Cemex illustrates. The firm expanded into foreign markets in order to achieve value creation, selecting countries and methods that facilitated this value creation. The firm did not expand following the product life cycle of cement as in the life cycle model (Vernon, 1966), since cement is a commodity that is produced throughout the world. Nor did it expand following a life cycle through trial-and-error without strategic direction as in the incremental internationalization model (Johanson and Vahlne, 1977; Johanson and Wiedersheim-Paul, 1975), since the company selected countries in order to achieve its strategy, and selected the best method to attain this strategy. Likewise, it did not use a dialectic process as part of the solution of the conflict between external market demands and internal attitudes (Bilkey and Tesar, 1977; Cavusgil, 1980; Czinkota, 1982; Reid, 1981), as there was little conflict in exporting but an underlying economic motivation guiding the expansion. Finally, it did not follow and evolutionary process of variation, selection, and retention in the transformation of its structure, although the transformation of activities accompanied changes in the structure (Malnight, 1995; Stopford and Wells, 1972). Therefore, although the underlying drivers of the internationalization process discussed in previous models can still be valuable, the specific lenses through which to observe organizational change (Van de Ven, 1992) need to be rethought. The teleological model appears to be better for explaining change in the internationalization of firms.

CONCLUSIONS

In this paper, the internationalization process of the firm is discussed. It is argued that, from the point of view of the resource-based theory, internationalization follows a teleological process of firm transformation. The resource-based teleological process model was discussed and compared to other models of the internationalization process: product cycle, incremental internationalization, innovation-related, and evolutionary structure models. Its application was illustrated through the analysis of the internationalization process of the Mexican cement firm Cemex.

The paper contributes to the literature of international management by providing an alternative view of the process of internationalization that resolves the limitations of the received literature, as existing models are being increasingly criticized (Andersen, 1993, 1997; Forsgren, 2002; Melin, 1992). The application of the resource-based theory to the analysis of internationalization considers the conditions of the market and economic environment in evaluating the international expansion, applies to both the initial stages of internationalization and later stages where the firm is a large MNE with operations in different countries, is not deterministic in its predictions, and considers other modes of development such as acquisitions and alliances. Furthermore, and more importantly in the context of this paper, it is clear which process theory is used, that is, the teleological process theory, which can in many cases provide a more realistic account of the internationalization of the firm (Forsgren, 2002). The key element of a teleological process is purpose. But, as discussed above, teleology does not negate external limits to action (Van de Ven and Poole, 1995). Furthermore, the best intentions do not always work due to internal limitations (e.g. cognitive biases, incorrect diagnosis, acontextualism, or lack of resources). Linking a teleological view of change with the resource-based theory allows a better overall understanding of purposive processes of organizational change. In doing so, the paper continues the extension of the resource-based theory into the field of international management and thus improves our understanding of the internationalization process.

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TABLE 1

Models of internationalization process according to the type of change they represent

		Process of change (how)	
		Prescribed	Non prescribed
Purposeful change (why)	Yes	LIFE CYCLE (Change to achieve growth following the predetermined life cycle) PRODUCT CYCLE MODEL (Vernon, 1966, 1979) INCREMENTAL INTERNATIONALIZATION MODEL (Johanson and Valhne, 1977, 1990; Johanson and Wiedersheim-Paul, 1975)	TELEOLOGICAL (Change to achieve a desired goal following no prescribed manner) RESOURCE-BASED MODEL (This paper)
	No	EVOLUTIONARY STRUCTURE MODELS (Stopford and Wells, 1972; Bartlett & Ghoshal, 1989) EVOLUTIONARY (Change with no established objective following a variation-selection-retention cycle)	INNOVATION-RELATED MODELS (Bilkey and Tesar, 1977; Cavusgil, 1980; Czinkota, 1982; Reid, 1981) DIALECTIC (Change with no predetermined objective but outcome of conflict, following no prescribed manner)

FIGURE 1

Solving the paradox: Integrating alternative internationalization process models in nested levels

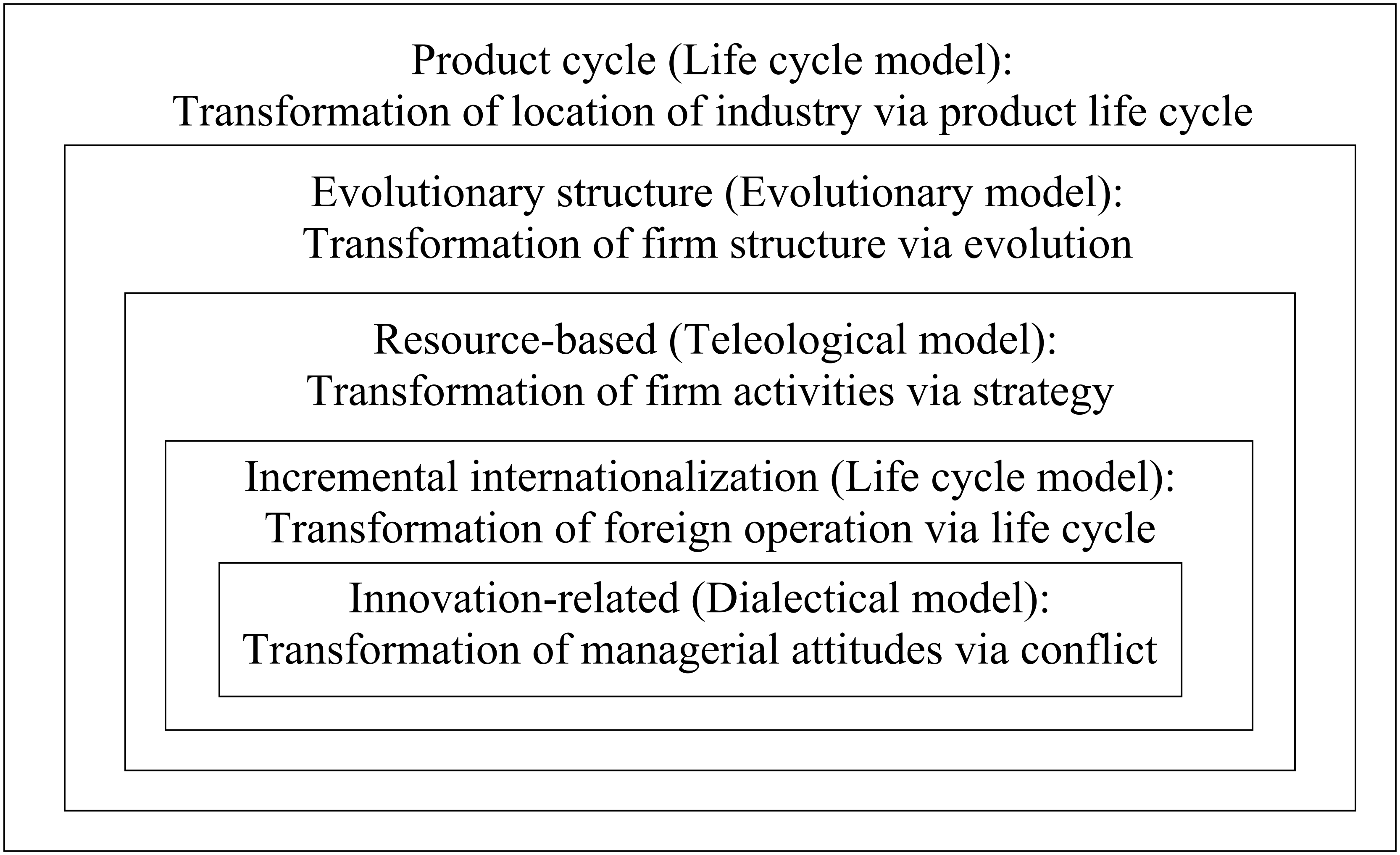

TABLE 2

Overall internationalization process of Cemex (Temporal sequence of expansion into countries)

		Year																	
		1976	..	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
America	USA	E		S(A), S(A)		S(P),P(P)	P(P),P(P)	S(P)				P(P)						P(P)	D
	Caribbean								E		P(A)	P(P)							
	Trinidad and Tobago											P(A)							
	Cuba											S(A)							
	Dominican Republic												P(P)						
	Haiti																S(P)		
	Venezuela											P(P)							
	Panama											P(P)							
	Colombia													P(P)					
	Costa Rica																P(P)		
	Chile																P(A)		
	Nicaragua																	P(A)	
Europe	Spain									P(P)									
Asia	Far East								E										
	Philippines														P(A)		P(P),P(P)P(P**)		
	Indonesia															P(A),P(A*)			
	Taiwan																	S(A)	
	Thailand																		P(P)
	Bangladesh																	P(G)	
Africa	Egypt													E			P(P)P(P*)		

Codification:

E:Exports	S(G): Sales Subsidiary (greenfield)	P(G): Production Subsidiary (greenfield)	D:Divestiture
	S(P): Sales Subsidiary (purchase)	P(P): Production Subsidiary (purchase)	
	S(A): Sales Subsidiary (alliance/JV)	P(A): Production Subsidiary (alliance/JV)	

(*): increase in participation
(**): decrease in participation