



IPL
instituto politécnico
de leiria

VERTICAL INTEGRATION FOR FULL OUTSOURCING: GROWTH AND INTERNATIONALIZATION OF A PORTUGUESE PACKAGING FIRM

Manuel Portugal Ferreira
Instituto Politécnico de Leiria, Portugal

Sungu Armagan
Florida International University, USA

Dan Li
Indiana University, USA

working paper



 **Glob
advantage**

Working paper n° 04/2007

globADVANTAGE
Center of Research in International Business & Strategy

INDEA - *Campus 5*

Rua das Olhalvas

Instituto Politécnico de Leiria

2414 - 016 Leiria

PORTUGAL

Tel. (+351) 244 845 051

Fax. (+351) 244 845 059

E-mail: globadvantage@ipleiria.pt

Webpage: www.globadvantage.ipleiria.pt

WORKING PAPER N° 04/2007

September 2007

**Vertical integration for full outsourcing:
Growth and internationalization of a Portuguese
packaging firm**

Manuel Portugal Ferreira

Escola Superior de Tecnologia e Gestão
Campus 2
Instituto Politécnico de Leiria
Morro do Lena - Alto Vieiro
Apartado 4163, 2411-901 Leiria, Portugal
Phone: 011-351-244-843317
Fax: 011-351-244-820310
E-mail: portugal@estg.ipleiria.pt

Sungu Armagan

Department of Management and International Business
College of Business Administration
Florida International University
11200 SW 8th Street, RB 344A
Miami, FL 33199
Tel. 305-348-3305
Fax. 305-348-6146
E-mail: sungu.armagan@business.fiu.edu

Dan Li

Kelley School of Business, Indiana University
Business, Suite 630, 1309 East Tenth Street
Bloomington, Indiana 47405-1701
Phone: 812-855-5967
Fax: 812-855-4246
Email: lid@indiana.edu

2007

**Vertical integration for full outsourcing:
Growth and internationalization of a Portuguese packaging firm**

ABSTRACT

Based on a case study of a Portuguese packaging firm, this paper examines how vertical integration of the supplier serves as a vehicle for the full outsourcing of the client firms' needs in a solution that reduces transaction costs, favors specialization, and permits small and medium-sized firms to develop competencies that may be exploited in a wide array of projects. Vertical integration by the supplier (a governance decision) is a strategic response to changes in the sourcing model of the clients. Client-supplier relationships have inter-spatial and inter-temporal value that surpasses spot market exchanges.

Keywords: strategic outsourcing, vertical integration, internationalization, case study

INTRODUCTION

A growing number of firms are outsourcing the majority of their traditional activities to focus internally on only a few. For example, NIKE, Inc., focuses on pre- and post-production, and outsources 100% of its shoe manufacture (Quinn & Hilmer, 1995). In fact, according to Corbett & Associates (1999), outsourcing has risen 18% across industries in 1999-2000. The rise in industrial outsourcing is further remarkable when looking at the US food metal packaging industry which was dominated by self-production of the producers of final goods (54%) in 1985, but by 1996, the US metal packaging industry was dominated by two multinational enterprises (MNEs): Silgan Container (39%) and Crown Cork & Seal (30%), with a joint market share of 69% (source: The Canmaker, July 1997). In industries such as the auto industry, supply chains are being redesigned. For example, automobile assemblers no longer have equity stakes in joint ventures that supply components specific to their auto models but instead outsource to independent suppliers the manufacture of a variety of components (Hennart, 1988). Outsourcing relationships seem increasingly based on stable network models of inter-firm relationships, rather than on arm's length exchanges that facilitate inter-firm sharing of proprietary knowledge, and the development of new product offerings, and benefits the firms involved (Dyer & Nobeoka, 2000).

Sourcing models, or client-suppliers relations, have been extensively researched within the realms of strategic management literature. The typical vertical integration, which achieved its height in Ford Motor Co. River Rouge complex, has been gradually replaced by flexible organizational formats (Buckley & Casson, 1998) that promote the specialization of the partner firms. Recognizing

hybrid models to organizing transactions, management scholars now focus on cooperative relationships (Madhok & Tallman, 1998; Williamson, 1985). Under certain situations, cooperative relationships can increase joint efficiency, foster innovation, allow the partners to concentrate on their core capabilities (Prahalad & Hamel, 1990; Hamel, 1991), reduce firms' investment in specialized assets, and mitigate transaction costs (Williamson, 1985). Sourcing models seem to be idiosyncratic to, and contingent on, inter-temporal and inter-spatial relationships client-supplier. Sourcing models depend on factors such as the focal firm's resources (Barney, 1991), dynamic capabilities (Teece et al, 1997), technological change (Afuah, 2001) and uncertainty (Teece, 1992), learning intent (Powell, 1998), supply-side uncertainties (Harrigan, 1985), the ability to appropriate the returns from research and development (Teece, 1992), and the characteristics of the transactions (Williamson, 1985; Hennart, 1991). Both client and supplier firms seem to have interest in stabilizing the relationship and create trust to override potential opportunistic behaviors (Gulati, 1995; Granovetter, 1985). In sum, firms' sourcing decisions are contingent upon a myriad of factors that lead to hierarchical, hybrid, or market-based governance forms of activities up and down the product value chain.

In this paper, we suggest that the traditional analysis of benefits and hazards of vertical integration and outsourcing *per se* using a transaction costs perspective is insufficient. From a dynamic perspective, we argue that vertical integration by the supplier (i.e., governance model decision) may be a strategic response to changes in the sourcing model of the client industries (sourcing model). We support our analysis on the case study of a medium-sized Portuguese

metallic packaging manufacturer, COLEP. We observe that governance decisions can neither be exclusively based on the benefits and hazards of each organizational form, nor on the economics of the product and inter-firm transactions. The supplier's governance decisions need to consider the co-evolution of the client firm and its environment, as well as the potential to generate firm-specific advantages (e.g. skills, knowledge, capabilities) that may be exploited beyond traditional national boundaries. Echoing Osegowitsch and Madhok (2003), we conclude that vertical integration strategies are far from dead, and rather contemporary vertical integration is driven by learning objectives, the development of capabilities that may be exploited in multiple markets and projects, and the need to adapt to new sourcing paradigms of the client firms.

LITERATURE AND CASE STUDY

In the next sections we integrate research on vertical integration, transaction cost theory, and models of strategic outsourcing with the analysis of the case study of COLEP.

The process of collecting firm-specific information involved two main sources: (a) primary sources through open-ended, unstructured and conversational interviews in the firm followed by visits to the company's facilities; (b) secondary sources such as company reports, magazines, promotional handouts, previous studies, and personal contacts with industry specialists. The data gathering procedure was consistent with Eisenhardt (1989) and Yin (1994) on case study research.

COLEP, a Portuguese packaging company, was founded in 1965 as a metallic packaging manufacturer. COLEP gradually widened its product and activity portfolio through vertical integration of the packaging value chain. Founded as a decorative cans producer for industrial products, COLEP integrated lithography (in 1970), the production of aerosol containers (1972), the manufacture of plastic components (1973), contract filling of aerosol cans (1975), production of plastic containers (1982), contract filling of liquids (1983), and, in 1984, the production of metallic containers for food products (source: company reports). These activities comprise the entire value chain of selected product segments. Thus, vertical integration allows COLEP to offer a *full service* that corresponds to the (*full*) *outsourcing*¹ needs of selected products and activities of client firms. In 1975, COLEP established a partnership with the multinational Johnson Wax (JW), and, in 1993, acquired Johnson Wax's Spanish contract-filling subsidiary in Valdemoro. More recently, COLEP advanced its internationalization strategy with a *greenfield* operation in Poland.

The industry

The metal packaging industry is very heterogeneous, with significant variations in the final product, and where standardization in some segments co-exists with differentiation in others. In such an industry it is important that firms encounter an unique positioning amidst competitors (Caves & Porter, 1977; Porter, 1980; Reger & Huff, 1993). COLEP's distinctiveness is built on a high level of vertical integration. Although there are numerous manufacturers of metal packaging and plastic components, and contract fillers, there is no other firm (at

¹ The majority of activities outsourced by COLEP are manufacturing related.

least in the EU) that carries in-house such wide array of activities of the packaging value chain: from lithography to distribution (Martins, 1996).

For example, in the metal packaging industry we find small niche players such as Ormis, CMB/Colep or Vivancos in the production of containers for a narrow market segment (i.e., canned fish goods). Other firms, such as Neorelva, A.Freitas and Ferbal are specialists in metal containers for industrial products (e.g., paints, varnishes) and manufacture only in one country. Most contract fillers such as Fimper are small and do not manufacture the containers. The segments of cosmetics, hygiene, and consumer goods are dominated by self-production of the manufacturers. Finally, MNEs such as Lever, Procter & Gamble, Johnson or Gillette tend to focus on R&D, formulation and filling of their products, privileging outsourcing of small batches of mature products. It is in the full outsourcing of these batches that small to medium enterprises may find a viable niche.

Vertical Integration

A firm is vertically integrated when it owns or controls the assets in successive stages of the value chain. That is, if it has two or more adjacent economic activities under its ownership control, and uses the outputs of backward stages as inputs in forward stages (Fronmueller & Reed, 1996). There is substantial incentive for firms to vertically integrate, as indicated in prior literature. The incentive to vertically integrate depends on the type of production involved, the extent of transaction costs, the amount of specialized assets, the degree of market power at each stage of production, the separability of activities, and the amount of uncertainty concerning prices and costs. Costs may be

decreased by avoiding market costs (Jones & Hill, 1988), by eliminating the distortion in input costs caused by imperfect competition in the upstream market (Vernon & Graham, 1971; Westfield, 1981), by reducing transaction costs (Jones & Hill, 1988; Mahoney, 1992; Williamson, 1971), by decreasing uncertainty or asymmetric information, resulting in a more efficient use of inputs (Green, 1974; Riordan & Sappington, 1987), and by protecting proprietary technology (Jones & Hill, 1988).

In addition, vertical integration strategies benefit firms by reducing or eliminating firm's dependence on external agents. Reducing the dependence on external agents is particularly important in cartelized markets, and when the access to inputs suffers from small numbers bargaining (Williamson, 1985). Vertical integration can also increase profits through higher prices by creating barriers to entry (Bain, 1956; Salop & Scheffman, 1983), allowing price discrimination (Perry, 1980; Stigler, 1951), reducing service and advertising externalities (Jones & Hill, 1988; Perry & Groff, 1985), or providing a firm with power over buyers or suppliers (Porter, 1980).

The benefits for the firm accrue as higher efficiency through the control of the value chain (Reeve, 1990), higher flexibility (Richardson, 1996), and ability to increase the value added of the products manufactured. This is more likely to occur in highly regulated industries, unstable environments, or/and as a result of the nature of the product and of the manufacturing technologies (Madhok & Tallman, 1998).

Although the benefits of vertical integration, namely in permitting firms to overcome many imperfections in the market for intermediate inputs (Hennart,

1982; Rugman, 1981; Afuah, 2001), have been recognized by transaction cost economics (Williamson, 1985), vertical integration is a "two-edged" sword (Afuah, 2001). This has been evidenced by the mixed empirical results on the performance implications of vertical integration. Vertical integration may not be a superior organizational form in unstable environments because it creates rigidities (Teece, 1992), competency traps (Levinthal & March, 1993), administrative burdens (Williamson, 1985), and increase firms' likelihood of failure in the presence of technological changes (Afuah, 2001).

The disadvantages of vertical integration emerge, essentially, from the insulation of the firm. First, the firm looking inward may be limited to local search behaviors (Rosenkopf & Nerkar, 2001) and fail to capture market changes (Richardson, 1996) that occur beyond its immediate landscape (Levinthal, 1997; March, 1991). Second, the management of a vertically integrated firm is more complex, and may result in administrative inefficiencies, and possibly higher production costs (Mahoney, 1992). Third, firms benefit more from vertical integration the smaller are differences among the minimum efficient scales of the stages of production integrated and the scale of operation of the firm (Casson & Associates, 1986). At the outset, the firm should only focus on those activities that contribute to achieve its objectives, and that are supported by the firm's capabilities (Hamel, 1991; Teece et al., 1997) or firm-specific knowledge (Grant, 1996).

In the metal packaging industry, and particularly in the case of Colep, we observe interesting features of the benefits of vertical integration worth revealing. COLEP's vertical integration is a response to both its clients' needs, and

its internal efficiency requirements. The clients seek partners to whom they might outsource the entire value chain of selected products (generally small to medium batches of uniform products, or products in which they have a competitive disadvantage). Internally, vertical integration permits COLEP to increase the products' value added, and to overcome market imperfections in inputs (e.g. lithography). For example, although manufacturing of metallic containers is COLEP's traditional business, COLEP has been shifting its strategy to concentrate on the contract-filling segment (roughly 40% of the revenues in 1996) and aerosols, which are higher value added segments. The success of this strategy is evident in the increased sales from 15 million dollars in 1985 to 90 millions in 1998 (an annual average increase of 33%). In addition, foreign business accounts for an increased share of the revenue from 17% in 1985 to about 55% in 1998.

Transaction Costs

Transaction cost theory (Williamson, 1985) is frequently used to assess the relative merits of vertical integration *vis a vis* other governance models. Transaction costs suggests that the choice of governance model depends on the assessment of uncertainty relating inputs, frequency of exchanges between client and supplier, and asset specificity (Williamson, 1985; Afuah, 2001). In addition, transaction costs theory relies on two basic assumptions on human nature: bounded rationality and opportunism (Barney & Hesterly, 1996). According to the transaction cost theory, firms benefit from vertical integration if this solution reduces transaction and production costs; if it prevents the hazards from bounded rationality, opportunistic behaviors of partners, unequal bargaining

power of the partners, and reduces the search and contract costs associated to future transactions.

Transaction costs supported by COLEP's clients are lessened for a variety of reasons. First, the risk of opportunistic behaviors by COLEP is low. Even considering that COLEP has access to the chemical formula of the contract filling products, possible opportunistic behaviors could only provide short-term gains because COLEP's reputation would be damaged (Gulati, 1998) if, for example, it breached a contract. Furthermore, the risk of opportunistic behaviors is reduced because the clients outsource the production of mature products, where competitive advantage no longer relies on the exclusive control of know how (Vernon, 1966). In fact, COLEP has maintained some ties for more than thirty years, which reflects its ability to create stable, durable, and trusting relationships (Ring & Van de Ven, 1992; Granovetter, 1985) that reduce transaction costs when the exchange frequency is high and the client made some commitment (Ghemawat, 1991) to the relationship.

Second, transaction costs are reduced because the assets are *not specific* to the transaction. Williamson (1985) argued that hierarchical governance is the most efficient structure when the transactions are recurrent and the investments are specific to the transaction. COLEP's assets are easily redeployed to any client or product with minimal adjustments. Therefore, COLEP has alternative uses for its assets without a significant loss of value or productivity. In fact, COLEP works within polygamous relations (Jones et al, 1997) and supplies several competing firms from which it accesses proprietary knowledge. On the other hand, clients do

not make irreversible commitments to the relation because their assets (i.e., knowledge) may be adjusted to other suppliers (Bensaou & Anderson, 1999).

Third, COLEP is able to reduce *transportation costs* by vertically integrating. How is this done? It has actually to do with the economics of the packaging. The costs accruing from the transportation of containers to the customer are the main barrier to the international expansion of the metallic packaging producers. Packaging seems to be immobile to long distance transportation. However, this problem may be mitigated by either transporting a higher value added product (for which vertical integration of adjacent value activities is a solution) or minimizing geographic distance to the client. Only products with high value added, such as full aerosols, are mobile to distant markets: UK, France, Poland, Russia, and the US.

Strategic Outsourcing

Firms worldwide are challenged to reconsider their organizational forms and competitive landscape (Schendel, 1995) due to the deregulation of markets, rapid technological change, and reduction of transaction costs emerging from the new communication technologies (Dunning, 1995; Combs & Metcalfe, 2000). To these trends firms respond by increasing disaggregation of the value chain (Zenger & Hesterly, 1998) and creating novel relational models based on strategic outsourcing schemas (Gulati, 1998; Dyer & Nobeoka, 2000). These responses help firms focus on their knowledge base (Grant, 1996) while resorting to external agents (i.e., suppliers) for specialized skills (Dyer & Nobeoka, 2000), and using governance models that favor flexibility and responsiveness to market changes (Quinn & Hilmer, 1994; Dyer & Singh, 1998).

Models of strategic outsourcing tend to be based on stable collaborative relationships with a few (eventually only one) selected suppliers. Instead of relying on multiple suppliers and being subject to potentially opportunistic short-term behaviors (Williamson, 1985), the client firm is tied to one supplier with whom it shares know-how, information, and interdependence. Thus, strategic outsourcing is not based on arm's length relationships, where the client has bargaining power over the supplier, but rather on relational capital with entrusted, selected, and supportive suppliers (Ring & Van de Ven, 1992; Uzzi, 1996). The outcome is that firms internalize only the activities in which they have a competitive advantage, and that are of strategic importance (Prahalad & Hamel, 1990; Quinn & Hilmer, 1994; Teece, 1992), or activities that are critical sources of vulnerability (Quinn & Hilmer, 1994). Conversely, firms externalize (or contract in the market) to outside firms productions that are not strategically important, where they do possess a competitive advantage, and where suppliers are efficient. In the case of metallic container manufacturing, the control of the production process is not critical and does not seem to provide the client a competitive advantage. In addition, in the case of COLEP, a stable model of outsourcing seems warranted because the clients (particularly MNEs) need to transfer some proprietary knowledge (e.g. chemical formulas) for the contract filling operations. Finally, because there are other potential suppliers of the containers besides COLEP, the outsourcing of packaging does not entail a vulnerability, or a disadvantageous bargaining position.

However, effective outsourcing is not outsourcing as much as possible; effective outsourcing is about achieving the very best long-term risk-adjusted

rate of return. The costs of outsourcing stem from searching, contracting, monitoring, enforcing contracts, and the hazards of outsourcing emerge primarily from opportunistic behaviors of the outsourced suppliers (Williamson, 1985). The risks of these sourcing strategies materialize in potential hold-up costs gestated by the outsourcing regimes (Williamson, 1985) and their instability. For example, a recent report by Dun & Bradstreet (Ozanne, 2000) notes that more than 20% of the outsourcing relationships fail within two years, and 50% within five. However, models of strategic outsourcing entail resilience of the relationship client-supplier that is seemingly at odds with standard economic rationale of self-interest seeking behavior by clients and suppliers (see Uzzi, 1996). Thus, strategic outsourcing relies on the expectation of a repeated game in an embedded cooperative relationship, where one might expect cooperation to persist when self-interest is between achieved through cooperation (Uzzi, 1996). Several of COLEP's relationships with clients have been lasting for the last thirty years, which in itself is an evidence that the returns from the cooperation are high.

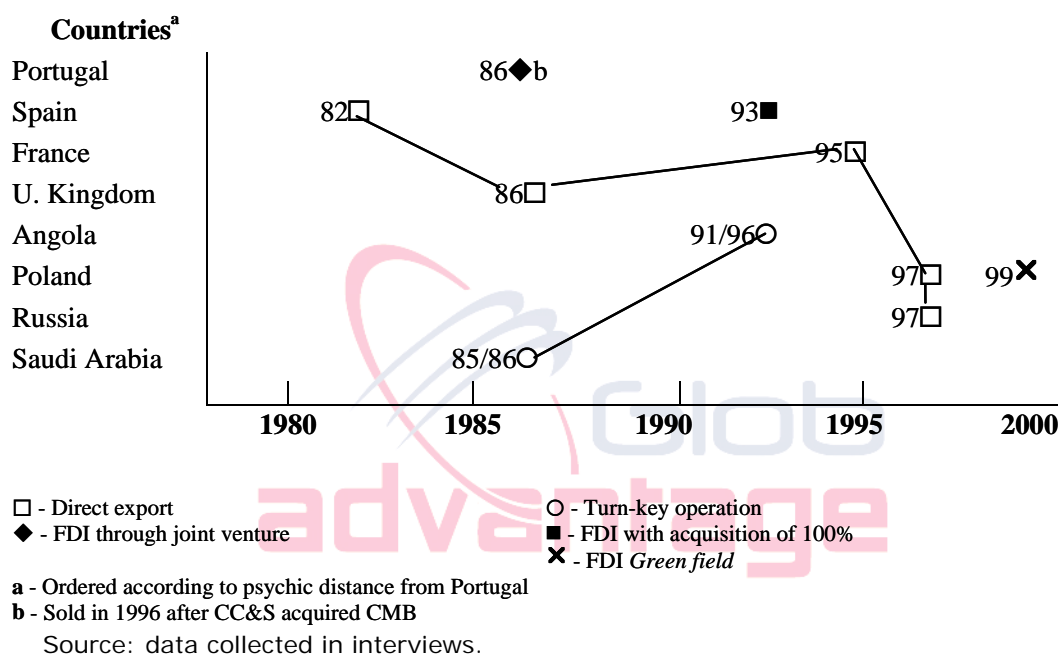
In sum, strategic outsourcing is an intermediate degree of externalization of production (or other activities) that the firm is not able, is not efficient, or does not want to carry in-house, but where pure off-the-shelf recruiting might involve risks of strategic nature, or superior costs. In other words, strategic outsourcing involves shifting activities from within the internal boundary of the firm to trusted external agents in a long-term orientation that involves exchange of firm-specific information and knowledge (Uzzi, 1996).

COLEP's Internationalization

The literature has recognized that the modes of foreign operation tend to evolve sequentially from exports to partnerships (e.g., joint ventures, strategic alliances), and to foreign direct investment (e.g., greenfield, acquisition of incumbent firms) (Johanson & Vahlne, 1977, 1990). Alternative explanations for firms' internationalization stress internationalization as the mechanism for the exploitation and appropriation of returns from innovation (Cagusvil, 1980; Rugman, 1981; Hennart, 1982), as an oligopolistic reaction to competitors' strategies (Kindleberger, 1969; Knickerbocker, 1973), product adoption (Vernon, 1966), or simply a follow the client approach (Li & Guisinger, 1992). Recent studies devoted attentions to the internationalization of small and medium-sized firms with limited international experience (Oviatt & McDougall, 1994). These firms do not have slack financial and human resources to single-handedly sustain the onus of international expansion, and are more dependent on their network of "facilitating" ties than large firms (Ellis, 2000). Oviatt and McDougall (1994) argued that the traditional factors that characterized the evolutionary model are no longer present (e.g., transportation and communication costs are decreasing), which raises the question of what the current factors are that drive firms to internalize activities across geographic markets. The more flexible models of the MNE (Buckley & Casson, 1998) rely upon the skills and capabilities the focal firm may exploit abroad, and the international specialization of the firm. Flexible firms require a focus on the core competences (Prahalad & Hamel, 1990) and increased magnitude and frequency of collaboration with other firms (Contractor & Lorange, 1988).

COLEP's internationalization reflects the internationalization process proposed in prior research. It was initially reactive, initiated in the simple supply of foreign firms in Portugal, but it evolved through partnerships at home, an acquisition abroad, and a greenfield investment. Figure 1 depicts COLEP's gradual internationalization process.

FIGURE 1. COLEP's internationalization process



The following sub-sections describe succinctly COLEP's major internationalization steps and the characteristics of the entry modes adopted. COLEP's internationalization highlights the development of firm-specific capabilities, and how the firm is able to exploit its advantages across markets.

Partnerships at home

Partnerships in the home market frequently contribute to develop firm's capabilities and growth (Root, 1994). Small firms' capabilities are often

developed passively through the supply of MNEs in the home market. This was the case with COLEP's supply of Shell, British Petroleum, Lever, Johnson Wax, Colgate-Palmolive, Mobil, and Reckitt & Colman. However, COLEP's knowledge, quality standards, and know-how were originally developed through the supply of large national companies such as Carnes Nobre, Victor Guedes, Cin, Robbialac, and Petrogal. Several of these partnerships persisted for the last thirty years, which is in conflict with the claim that about 50% of the outsourcing partnerships do not last beyond five years (Ozanne, 2000). The supply of clients at home might be leveraged to supply foreign clients through exports.

COLEP's equity joint venture in 1986 with the multinational Carnaud MetalBox (CMB), the CMB-COLEP, to manufacture easy-opening metallic cans for the Portuguese canned fish industry (e.g. sardines) represented a significant move and learning experience for COLEP. Joint ventures are mechanisms for learning (Hamel, 1991; Gulati, 1998). The joint venture CMB-COLEP dominated the Portuguese domestic market until Crown Cork & Seal took over CMB and acquired COLEP's share of the joint venture. CMB-COLEP was also a defensive oligopolistic reaction (Knickerbocker, 1973) by COLEP to protect the domestic market because CMB already owned six subsidiaries in the neighboring Spanish market.

Turnkey operations

Vertical integration presupposes firm-specific advantages (or ownership advantages - Dunning, 1998) of some kind that is either based on intangible or tangible resources (Barney, 1991), or on relational capital (Uzzi, 1996). Through the vertical integration of virtually all stages of the package value chain COLEP

developed intensive manufacturing and technical knowledge. In addition, the stable business relationships with reputable clients (some in the oil business) provided COLEP with reputation spillovers and made it an attractive partner for an array of projects. These two factors, knowledge and reputation, seem to have driven two turnkey operations contracts for the oil industry; one for the "Savola Company" in Saudi Arabia in 1985-86, and the other for "Van Leer" in Angola in 1991-96.

Turnkey operations are another internationalization model used by COLEP reflecting the exploitation of the firm's capabilities (March, 1991). The construction of metal packaging factories is only feasible for highly reputed firms that possess the resources, technological capacity, know-how, and the reputation to be a credible partner for large scale projects. In fact, these two turnkey contracts originated long-term relationships that extended to the education of human resources, and technical and maintenance assistance.

Acquisition in Spain

In 1993, COLEP acquired Johnson Wax's Spanish contract filler subsidiary. This subsidiary was exclusively a contract filler of mass consumption products, and was endowed with technology not yet known to COLEP. The acquisition of incumbent firms is a particularly interesting entry strategy when the acquired firm possesses superior resources or technology, because in these cases, acquisitions are vehicles for learning (Barkema & Vermeulen, 1998). The acquisition of this subsidiary emerged from Johnson Wax's efforts to rationalize its European production and concentrate manufacturing activity in Netherlands,

and was preceded by COLEP's exports of metallic containers to the Spanish market.

Several reasons lie behind the acquisition in Spain. First, it increased COLEP's production capacity in contract filling - the activity that has the highest value added. Currently, COLEP's manufacturing capacity surpasses 160 million containers, endowing it the largest European contract filler. Second, the acquisition brought an inflow of technology and know-how in distribution since the Spanish subsidiary had developed a logistics system with its own fleet of trucks and multiple distribution platforms in Iberia. Third, the acquisition allowed COLEP to exploit scale and scope economies in the production of metallic containers, filling, and distribution. Fourth, the acquisition placed COLEP closer to major markets (e.g., France, UK), which is particularly important for relatively immobile products such as packaging. Finally, it avoided the acquisition of JW's subsidiary by a competitor whose rivalry would likely to be felt in the Portuguese market as well.

Greenfield investment in Poland

Greenfield operations tend to be utilized when the focal firm has some firm-specific advantage that is best appropriated through internalization, when the characteristics of the product or of the host market do not permit service at a distance (e.g., exports), or when there is no available target incumbent for an acquisition (Root, 1994). Although greenfield investments permit full control over the new subsidiary they also entail an irreversible commitment to the host market (Root, 1994). Hence, it is not unusual for greenfield investments to be preceded by exports to the host country or partnerships with local firms (Root,

1994). COLEP had previous direct and indirect exports to Poland prior to the greenfield entry. Specifically, COLEP exported selected metallic containers to UK contract fillers that re-exported them to Poland already full. Poland is an attractive market due to its proximity to other Northern and Eastern Europe countries. It represented about 4% of the exports of EU producers in 1994 (source: SEFEL). Furthermore, investing in Poland meant an opportunity to participate in the outburst of the Eastern countries' economic development.

There are also other external factors that explain the greenfield investment in a manufacturing subsidiary in Poland. First is the availability of raw and intermediate products of reasonable quality. Second is a favorable labor market (both in availability and quality). Third is the prospect for Poland joining the EU, which it did in 2005. Besides, transportation costs represent 20% to 25% of the total cost in some product lines conferring proximity to clients essential to improve firm's competitiveness.

DISCUSSION & THEORY ADVANCEMENT

Prior literature has advised firms to concentrate on cost-saving and core-competence-exploitation when making decisions on vertical integration and outsourcing. Based on a case study of COLEP, we argue that such analysis of benefits and hazards of vertical integration and outsourcing is insufficient. From a dynamic perspective, we posit that vertical integration by the supplier may be a strategic response to changes in the sourcing model of the client industries. Suppliers may follow a diverse strategy, as in the case of COLEP, to accommodate changes in the clients' range of activities (Bensaou & Anderson, 1999). Thus, vertical integration can be an appropriate strategy for suppliers to

tap into the newly open markets emerging from the disaggregation of the MNEs activities (Zenger & Hesterly, 1998) in what Dunning (1995) called the age of 'alliance capitalism'.

Vertical integration by suppliers may be a strategic choice to respond to the growing des-internalization and international specialization of MNEs' activities. Through vertical integration suppliers may assume the clients' full product value chain activities. COLEP developed a broad array of capabilities that facilitated the expansion to foreign markets both through the full supply of its clients and through the development of special contracts (e.g. the turnkey operations). The internalization of sequential product value chain activities permits fuller utilization of unequal minimum efficient scales of the activities internalized with cost economies benefits, which are the basis for cost-driven competitive advantages.

Providing a *full service* to its clients COLEP approaches an in-sourcing solution characterized by stability, trust, and low transaction costs, despite some level of asset specificity and significant transfers of knowledge. This model builds relational capital despite the "polygamous" character of the relationships (Jones et al., 1997). The polygamous character of the relations of COLEP with its clients is a distinctive advantage of COLEP and illustrates a model that sustains stable relationships client-supplier that contrasts with the occasional outsourcing or arm's length exchanges. A set of theoretically-driven propositions may be drawn:

Proposition 1. *Vertical integration can be used as strategic responses to the change of a firm's upstream/downstream business models.*

Proposition 2. *Outsourcing can be used strategic responses to the change of a firm's upstream/downstream business models.*

Firms emerging from small, quasi-first world, countries such as Portugal, are pushed to leave the country's political boundaries and search for clients abroad. This exit is made easier whenever the firm has some credible form of differentiation. Simultaneously, one needs to consider the nature of the product. When the nature of the product hinders the service of markets at a distance, such as is the case with metallic containers, the firm's internationalization may benefit from developing a full service strategy through vertical integration, manufacturing of a wide array of products, and focus on the higher value added activities. This was COLEP's strategy: to partner for the full outsourcing of its clients' needs, which required developing a high level of vertical integration.

The internationalization path is the result of internal strategies, and external constraints and opportunities (Root, 1994). Motives for internationalization vary considerably among firms, and frequently path dependent choices or strategies impact on the future internationalization of the firm (Root, 1994; Johanson & Vahlne, 1977). For example, COLEP's internationalization path was not independent of the historical political constraints in the Portuguese market in the 70's. When in 1975 Johnson Wax sought to enter the Portuguese market the high political risk (in 1974 the Portuguese revolution ended 40 years of an autocratic regime) hindered Johnson Wax from taking the risk accruing from foreign direct investment operations in Portugal. The solution Johnson Wax found was to develop a domestic producer through some technology transfer. In addition, COLEP's vertical integration seems to reflect substantial supply-side inefficiencies in the Portuguese market for intermediate inputs. These inefficiencies stemmed from a highly cartelized market. For example, the lithography was concentrated

on a few small-sized producers that had low production capacity, insufficient quality, and obsolete technology.

Proposition 3. *The resource endowment of a firm's home country influences the firm's vertical integration decisions in its domestic and international operations.*

Contributions. This case has potential interest for managerial and regulation policies. Innovation and development of internal competencies are indispensable for the generation of competitive advantages, and these competencies may be exploitable in foreign markets. Similar firms need to evaluate (a) the level of vertical integration and autonomy for the subsidiaries, (b) the management of the client portfolio, and (c) the level of defensive investment needed. The former may lead to international alignments customers-supplier. The value of the relationship customer-vendor surpasses the net present benefits of the contracts. The trust (Granovetter, 1985) between client and supplier may permit the replication of the relational model in other markets, embodying a powerful lever for the internationalization of the firm. It is reasonable to assume that this is particularly important for small firms with limited international experience. The internationalization of firms from numerous industries may be vastly facilitated by the creation of stable relationships with MNEs that will help reduce the risks, and costs, associated to the presence in foreign markets. Industrial government-led policies may intervene in the creation of these ties in the domestic market.

Our study also offers implications for future academic research. The propositions derived from this case study need to be advanced further and empirically investigated in a large sample, in order to create knowledge more

generable to other firms. [MORE] Given the development of hybrid relationships between markets and hierarchies, it is also interesting to study the degree of stability of the relationships with MNEs through licensing contracts, or other governance forms. Finally, the extent to which cooperation in the domestic market may be a lever for international expansion warrants additional research.

CONCLUSION

To conclude, this study contributes to the broader discussion of where one may draw the boundaries of the firm. Specifically, we noted that contemporary vertical integration may be examined beyond the traditional transaction costs between agents, rather as a manner to develop firm-specific capabilities that can be exploited within and outside the traditional national and technological boundaries. The choice between *in* and *out* sourcing, or any hybrid form emerges from the evaluation of the relative costs and benefits of the alternatives, including those that result from the appropriation of specific advantages.

This case study presents evidence that vertical integration permits suppliers to develop competencies that encourage new forms of business (e.g. turnkey operations) in multiple markets. The model chosen by the focal firm is designed with a level of considerable vertical integration that corresponds to the full externalization of the clients' manufacturing activities. This is interesting in an era of alliance capitalism (Dunning, 1995) and permits even small firms to develop differentiated competitive positions in the industry. These positions may constitute the basis for firms' survival and growth.

REFERENCES

- Afuah, A. (2001) Dynamic boundaries of the firm: Are firms better off being vertically integrated in the face of a technological change?, Academy of Management Journal, 44 (6): 1211-1228.
- Barney, J. (1991) Firm resources and sustained competitive advantage. Journal of Management, 17 (1): 99-120.
- Barkema, H. & Vermeulen, F. (1998) International expansion through start-up or acquisition: A learning perspective, Academy of Management Journal, 41 (1): 7-26.
- Buckley, P. and Casson, M. (1998) Models of the multinational enterprise. Journal of International Business Studies, 29 (1): 21-44.
- Cagusvil, S. (1980) On the internationalization process of firms. European Research, 8 (6): 273-281.
- Casson, M. & Associates (1986) Multinationals and world trade: Vertical integration and the division of labor in world industries, London: Allen & Unwin.
- Caves, R. & Porter, M. (1977) From entry barriers to mobility barriers: conjectural decisions and contrived deterrence to new competition. Quarterly Journal of Economics, 91: 241-262.
- Combs, R. & Metcalfe, S. (2000) Organizing for innovation: Coordinating distributed innovation capabilities. In Foss, N. and Mahnke, V. (Eds) Competence, governance and entrepreneurship, Oxford University Press.
- Contractor, F. & Lorange, P. (1988) Cooperative strategies in international business. Lexington Books, Lexington, MA.
- Corbett, M. & Associates (1999) The 1999 outsourcing trends report, LaGrangeville, New York.
- Dunning, J. (1998) Location and the Multinational Enterprise: A Neglected Factor?, Journal of International Business Studies, 29 (1): 45-66.
- Dunning, J. (1995) Reappraising the eclectic paradigm in an age of alliance capitalism. Journal of International Business Studies, Third quarter, 461-491.
- Dyer, J. & Nobeoka, K. (2000) Creating and maintaining a high-performance knowledge-sharing network: The Toyota case. Strategic Management Journal, 21 (3): 345-
- Dyer, J. & Singh, H. (1998) The relational view; cooperative strategy and sources of interorganizational competitive advantage. Academy of Management Review, 23 (4): 660-679.
- Eisenhart, K. (1989) Building theories from case study research. Academy of Management Review, 14 (4): 532-550.
- Ellis, P. (2000) Social ties and foreign market entry. Journal of International Business Studies, 31 (3): 443-469.
- Fronmueller, M. & Reed, R. (1996) The competitive advantage potential of vertical integration, Omega, 24 (6): 715-726.
- Gankema, H., Snuit, H. & Van Dijken, K. (1997) The internationalization process of small and medium-sized enterprises: an evaluation of the stage theory, In Donckels, R. and Miettinen, A. (Eds.), Entrepreneurship and SME research: On its way to the next millennium. Aldershot: Ashgate Publishing Ltd., 185-197.

- Ghemawat, P. (1991) Commitment: The dynamic of strategy. The Free Press, New York.
- Granovetter, M. (1985) Economic action and social structure: The problem of embeddedness. American Journal of Sociology, 91 (3): 481-510.
- Grant, R. (1996) Toward a knowledge-based theory of the firm. Strategic Management Journal, 17: 109-122.
- Gulati, R. (1995) Does familiarity breed trust? The implications of repeated ties for contractual choices in alliances. Academy of Management Journal, 38 (1): 85-112.
- Gulati, R. (1998) Alliances and networks. Strategic Management Journal, 19 (4): 293-317.
- Hamel, G. (1991) Competition for Competence and Inter-Partner Learning Within International Strategic Alliances. Strategic Management Journal, 12: 83-103.
- Harrigan, K. (1985) Vertical integration and corporate strategy. Academy of Management Journal, 28 (2): 397-426.
- Hennart, J-F. (1982) A Theory of the Multinational Enterprise. Ann Arbor, MI., University of Michigan Press.
- Hennart, J. F. (1988) A transaction costs theory of equity joint ventures. Strategic Management Journal, 9 361-374.
- Hennart, J.F. (1991) The transaction costs theory of joint ventures: An empirical study of Japanese subsidiaries in the US. Management Science,
- Johanson, J., & Vahlne, J. (1977) The internationalization process of the firm: A model of knowledge development and increasing foreign market commitment. Journal of International Business Studies, 8 (1): 23-32.
- Johanson, J., & Vahlne, J. (1990) The mechanisms of internationalization. International Marketing Review, 7 (4): 11-24.
- Johanson, J., & Widenshiem-Paul, P. (1975) The internationalization of the firm: Four Swedish cases. In Peter Buckley (Ed.) The internationalization of the firm: A reader, Academic Press.
- Jones, C., Hesterly, W. & Borgatti, S. (1997) A general theory of network governance: Exchange conditions and social mechanisms. Academy of Management Review, 22 (4): 911-945.
- Kindleberger, C. (1969) American business abroad. New Haven: Yale University Press.
- Knickerbocker, F. (1973) Oligopolistic reaction and multinational enterprise. Cambridge, MA: Harvard University Press.
- Levinthal, D. & March, J. (1993) The myopia of learning, Strategic Management Journal, 14: 95-113.
- Li, J-T. & Guisinger, S. (1992) The globalization of service multinationals in the "triad" regions: Japan, Western Europe and North America. Journal of International Business Studies, fourth quarter, 675-696.
- Madhok, A. & Tallman, S. (1998) Resources, transactions and rents: Managing value through interfirm collaborative relationships. Organization Science, 9 (3): 326-339.
- Mahoney, J. (1992) The choice of organizational form: Vertical integration versus other methods of vertical integration. Strategic Management Journal, 13 (8): 559-584.
- March, J. (1991) Exploration and exploitation in organizational learning, Organization Science, 2 (1): 71-87.

- Martins, J. (1996) Integração vertical, Uma aplicação ao caso da COLEP Portugal. unpublished masters dissertation, School of Economics of the University of Oporto, Portugal.
- Nelson, R. & Winter, S. (1982) An Evolutionary Theory of Economic Change. Cambridge, MA, Belknap Press.
- Osegowitsch, T. & Madhok, A. (2003) Vertical integration is dead, or is it? Business Horizons, 46 (2): 25-34.
- Oviatt, B. & McDougall, P. (1994) Towards a theory of international new ventures. Journal of International Business Studies, 25 (1): 45-64.
- Ozanne, M. (2000). Dun & Bradstreet barometer of global sourcing. Dun & Bradstreet.
- Porter, M. (1980) Competitive Strategy. New York: Free Press.
- Powell, W. 1998. Learning from collaboration: Knowledge and networks in the biotechnology and pharmaceutical industries. California Management Review, 40 (3): 224-240.
- Prahalad, C. & Hamel, G. (1990). The core competence of the corporation. Harvard Business Review, May-June, 79-91.
- Quinn, J. & Hilmer, F. (1994) Strategic outsourcing. Sloan Management Review, Summer, 43-55.
- Quinn, J. & Hilmer, F. (1995) Strategic outsourcing. The McKinsey Quarterly, 1: 48-70.
- Richardson, J. (1996) Vertical integration and rapid response in fashion apparel. Organization Science, 7 (4): 400-412.
- Ring, P. & Van de Ven, A. (1992) Structuring cooperative relationships between organizations. Strategic Management Journal, 13: 483-498.
- Root, F. (1994) Entry Strategies for International Markets. Lexington Books, Washington, D.C.
- Rosenkopf, L. & Nerkar, A. (2001) Beyond local search: Boundary-spanning, exploration, and impact in the optical disk industry, Strategic Management Journal, 22 (4): 287-306.
- Levinthal, D. (1997) Adaptation on rugged landscapes. Management Science, 43 (7): 934-950.
- Rugman, A. (1981) Inside the Multinationals: The Economics of Internal Markets. London, Croom Helm.
- Schendel, D. (1995) Strategy futures: What's left to worry about? Advances in Strategic Management, IIB: 143-188.
- Stinchcombe, A. (1965) Social structure and organizations, In James March (Ed.) Handbook of Organizations. 142-193, Chicago, Rand McNally.
- Teece, D. (1992) Competition, cooperation, and innovation: organizational arrangements for regimes of rapid technological progress. Journal of Economic Behavior and Organization, 18 (1): 1-25.
- Teece, D., Pisano, G. & Shuen, A. (1997) Dynamic capabilities and strategic management. Strategic Management Journal, 18 (7): 509-533.
- Uzzi, B. (1996) The sources and consequences of embeddedness for the economic performance of organizations: The network effect. American Sociological Review, 61: 674-698.

- Vernon, R. (1966) International investment, and international trade in the product cycle. Quarterly Journal of Economics, 80 (2): 190-207.
- Williamson, O. (1985) Economic Institutions of capitalism. New York, Free Press.
- Yin, R. (1994) Case Study Research: Design and Methods. 2nd ed, Thousand Oaks, CA: Sage Publications.
- Zenger, T. & Hesterly, W. (1998) The disaggregation of corporations: Selective intervention, high-powered incentives, and molecular units. Organization Science, 8 (3): 209-222.

