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RESEARCH ON CORPORATE UNBUNDLING:
A SYNTHESIS

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Abstract

Unbundling operations, understood as the parent company's disposal and sale of assets, facilities, product lines, subsidiaries, divisions and business units, are emerging as a central topic of research in several areas. Yet a synthesis is still lacking, and differences in the terminology have created confusion. This paper stimulates and facilitates future research by unpacking the nature of unbundling operations. We suggest that outcomes of unbundling may be mediated by variables, such as factors at process and management level, which have been greatly neglected in existing research. The paper builds a framework on antecedents, process and outcomes of unbundling by integrating empirical findings and theoretical contributions. Furthermore, it identifies gaps in the existing literature and offers suggestions for future research on unbundling

Keywords: Corporate strategy, restructuring, divestiture, divestment.

RESEARCH ON CORPORATE UNBUNDLING: A SYNTHESIS[1]

Introduction

Unbundling operations, understood as the parent company's disposal and sale of assets, facilities, product lines, subsidiaries, divisions and business units, are emerging as a central topic in several fields of research, such as strategic management (Capron, Mitchell, & Swaminathan, 2001; Harrigan, 1981; Hopkins, 1991; McGahan & Villalonga, 2003a; Porter, 1987; Singh, 1993), finance (Berry, 2003; Boudreaux, 1975; Rosenfeld, 1984; Schipper & Smith, 1986; Trifts, Sicherman, Roenfeldt, & de Cossio, 1990; Vijh, 2002) and organizational behavior (Aron, 1991; Baker, Gibbons, & Murphy, 1999; Bergh, 1995; Gopinath & Becker, 2000; Seward & Walsh, 1996).

Previous empirical studies have focused mostly on stock market reactions to announcements of the unbundling operation and consequent variations in stock prices. As companies pursue objectives that go beyond the maximization of shareholders' wealth, it is important to include also strategic and organizational reasoning and consequences in this area of study. Unbundling operations are more than just financing operations. They are means and not only ends, as they affect the long-term evolution of the firm. In this paper, we address unbundling mainly from the strategic management perspective.

From a strategic perspective, it is still not clear whether unbundling is merely a reflection of the economic cycle (Aron, 1991; Duhaime & Grant, 1984; Garvin, 1983; Ito, 1995), a means to correct or reverse previous strategic decisions (e.g. diversification) (Hitt, Hoskisson, Johnson, & Moesel, 1996; Hoskisson, Johnson, & Moesel, 1994; Markides, 1992a; Porter, 1987; Seth & Easterwood, 1993), or a proactive strategic option (McGahan & Villalonga, 2003b).

Previous work in strategy has portrayed unbundling as a reaction to an error of judgment by management at the time of the original acquisition (Porter, 1987), or as a readjustment of the company's business focus in order to increase its economic value or competitive position. Following this line of thinking, divestitures have been described as the inverse of acquisitions (Hayes, 1972), the suggestion being that a firm will make up for an unsuccessful acquisition by simply "reversing" the purchase, i.e. disposing of the acquired business. More recent studies, however, suggest that mergers and acquisitions are not the inverse of divestitures, but strategic alternatives (McGahan *et al.*, 2003b).

Despite the increasing attention given to unbundling operations in both scholarly (Johnson, 1996; Markides, 1992a; Porter, 1987) and managerial journals (Dranikoff, Koller, & Schneider, 2002; Garvin, 1983), the question of whether unbundling operations are essentially corrective or proactive in nature remains unsettled (Eisenhardt & Brown, 1999). The literature on unbundling is still limited, compared to the large number of studies on mergers and acquisitions (Datta, Pinches, & Narayanan, 1992; Trautwein, 1990). This is

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reflected in the variety of terms used to describe the phenomenon. Many authors use the terms divestiture and divestment as synonyms, and therefore fail to distinguish between the two phenomena. Mixing divestments and divestitures in the same database, for example, can bias the results of empirical studies. We believe that a more systematic approach is needed to understand the antecedents, the process, and the outcomes of unbundling operations. We review existing research, first, to evaluate the current state of knowledge on this topic, and second, to provide an integrative framework for exploring the relationship between antecedents, process and outcomes of unbundling. We do so by integrating empirical findings and theoretical contributions into a researchable whole.

In this paper we argue that: i) failure to distinguish between divestments and divestitures has created and may still create confusion both at the level of theoretical constructs and at the level of empirical research; and ii) outcomes of unbundling may be mediated by variables neglected in current studies, such as factors at process and management level. These issues may explain why the debate between advocates and critics of unbundling is still open. In general, advocates of unbundling claim that unbundling results in a leaner and more efficient organization (Singh, 1993). Critics contend that it damages the company (Seth *et al.*, 1993).

This paper is organized as follows. First, we attempt to clarify definitional ambiguities on unbundling. We propose a hierarchical structure to classify definitions of unbundling, ranging from restructuring to the different unbundling modes. We also propose an analytical schema that organizes unbundling according to the reasons for the operation. Second, we offer a framework for categorizing research on unbundling. More specifically, within this framework we establish two broad categories of unbundling research: “theme oriented” studies and “linkage exploring” studies. In a next step we attempt to identify dominant patterns and gaps in current literature. In the conclusions, we suggest some areas for future research.

DEFINITIONAL ASPECTS

As a review of the literature reveals, a variety of terms has been used to describe unbundling activities. While some authors use the broad term “unbundling” to describe more narrow concepts such as downscoping (Johnson, 1996), others make no distinction between divesting assets and divesting business units (Capron *et al.*, 2001).

In this section, we attempt to clarify the concept of unbundling and distinguish between unbundling modes. First, we differentiate between the broad concept of restructuring and unbundling. Then, we explicitly distinguish between divestiture and divestment. We argue that a divestment (sale of corporate assets) differs from a divestiture (sale of a subsidiary or a business unit) in terms of economic, strategic and organizational antecedents, process, and outcomes.

Restructuring

Modifications of the firm’s assets, capital structure or organizational structure fall into the general concept of restructuring (Bowman, Singh, Useem, & Bhadury, 1999; Singh, 1993). Broadly speaking, restructuring refers to the transformation of corporate structure (Bowman & Singh, 1990), reconfiguration (Bowman & Singh, 1993), refocusing (Markides, 1995), downscoping (Hitt, Hoskisson, Harrison, & Summers, 1994; Johnson, 1996), patching (Eisenhardt *et al.*, 1999; Siggelkow, 2002), or return to core competencies (Prahalad & Hamel, 1990). Restructuring involves changes in the mix of assets owned by a firm or the lines of business in which a firm operates (Bowman *et al.*, 1999). Advocates of restructuring

claim that the result of restructuring operations is a leaner and more efficient organization (Singh, 1993). Critics contend that restructuring damages the company and its stakeholders, including employees and shareholders (Seth *et al.*, 1993).

Typically, the decision to develop a new configuration of the corporation's assets and/or lines of business involves the unbundling of peripheral corporate operations, through divestiture and divestment. Thus, unbundling operations are a vital part of corporations' restructuring strategies (Capron *et al.*, 2001; Johnson, 1996; Singh, 1993).

Unbundling

The terms divestiture and divestment are often used interchangeably to describe an unbundling operation. We argue that it is important to distinguish between the divestiture of business units and the divestment of physical assets in order to avoid confusion both at the level of theoretical constructs and at the level of empirical research. Failure to distinguish between these two phenomena can bias the results of empirical studies, for example. It is important that researchers triangulate data sources and compare database information with firms' announcements in newspapers and other publications, to be sure to include in their sample only divestments or divestitures[2].

Divestment: The term divestment often is used to refer without distinction to the sale of parts of a company, be it simply physical assets, or an entire business division, subsidiary, or product line. A more accurate definition describes divestment as the partial or complete sale or disposal of physical and organizational assets, shut-down of facilities, and workforce reduction (Capron *et al.,* 2001). Nees (1978) sees divestment as a series of independent steps over time and across the various levels of the organization as a consequence of discontinuance of one of the firm's activities.

Divestiture: Divestiture refers to an alteration of the firm's productive portfolio: a firm disposes of a division, a business unit, a product line or a subsidiary, offering it on the market (Rosenfeld, 1984). Hite and Owers (1983) add economic aspects to this definition: a divestiture entails the exchange of the productive or operative cash flows associated with the divested assets for cash, other operating assets, or securities of the acquired firm.

The distinction between divestment and divestiture is important also because of a key structural aspect. With a divestiture –though not with a divestment– the parent creates a new company, which is able to operate more or less autonomously (Garvin, 1983). Although the divestment of assets is unquestionably an important strategic choice (Lowe *et al.*, 2005), the focus in this paper is on divestitures of business units, subsidiaries and product lines.

Modes of divestiture

Divestitures include sell-offs, spin-offs, spin-outs, carve-outs, split-offs, split-ups, leveraged buy-outs, and management buy-outs. In each of these divesting modes, the parent undergoes an unbundling operation for different reasons and in search of different objectives and therefore maintains a specific relationship with the divested unit.

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[2] Lowe and Veloso (2005) suggest another distinction to be made in the analysis of unbundling. They propose that assets and subsidiaries that were integrated in the parent through an acquisition are then divested for reasons unrelated to the firm's strategy per se. Conversely, assets and subsidiaries which are the result of the parent's investments are then divested for strategic reasons (Lowe *et al.*, 2005). In this paper, we do not consider this subtle distinction in our definitions of divestment and divestiture.

A firm engages in a *sell-off* when it sells a division, business unit, product line or subsidiary to another firm in exchange for cash. The sold assets are absorbed by the acquiring firm and become part of it (Hearth & Zaima, 1984; Rosenfeld, 1984). In general, sell-off divisions are low-value assets and operate in industries different from the other parent industries (Powers, 2001). After the sell-off, the parent has no connection with the divested unit.

In the other modes of divestiture, typically the parent identifies and pursues new opportunities and creates a new venture, which often retains connections with the parent company and operates as a semi-autonomous entity with little management support for risk taking and creativity (Birkinshaw, 1997).

In the case of a *spin-off*, the detached division, business unit, product line or subsidiary becomes an independent company, whose shares are distributed to the parent's stockholders: hence, the parent maintains control of the new company. A spin-off may truly be a method for the parent to reduce agency costs and create tax shields (John, 1993), or to enter a new industry (Garvin, 1983), while retaining a close relationship with the spun-off company.

Spin-outs, also called *entrepreneurial spin-offs*, are entrepreneurial ventures founded by an employee of an incumbent firm leaving the parent. The spin-out is formed by individuals leaving an existing firm in the same industry and it often competes in the same industry as the parent (Agarwal, Echambadi, Franco, & Sarkar, 2002; Dahlstrand, 1997).

With a *carve-out*, a new independent company is created by detaching part of the parent's businesses and selling the shares of the new company in a public offering. In general, the parent remains in possession of a substantial fraction of the equity of the carved-out company. Allen (1998) emphasizes the fact that the parent undertakes a carve-out explicitly in order to raise funds in the capital market: these funds can be retained within the firm or used to pay creditors or shareholders. Carved-out divisions tend to be high-value assets (Powers, 2001). Carve-outs are seen as temporary forms of restructuring and often, after some time, the parent reacquires the carved-out division or divests it into another mode (Klein, Rosenfeld, & Beranek, 1991; Slovin, Sushka, & Ferraro, 1995).

With a *split-off*, the parent's shareholders receive stocks of the new company in exchange for parent company stocks. A *split-up* occurs when the parent ceases to exist and the divested unit remains in the market.

A *leveraged buy-out* (LBO) is a transaction in which a group of private investors uses debt financing to purchase a corporation or a corporate division. The principal characteristics of a LBO are high leverage, management ownership, active corporate governance, and investors' loss of access to liquid public equity markets (Palepu, 1990).

Management buy-outs (MBOs) are transactions in which managers, with the support of other investors, replace public stockholding of the parent company. MBOs are normally financed with large debt issues, and the new stocks are normally held by incumbent managers and a small group of external investors. MBOs often continue to operate significant portions of the original assets (Seth *et al.*, 1993).

Logics of unbundling operations

Companies follow a logic when they engage in an unbundling operation. We believe it is important to recognize the different reasons for which a company decides to divest. Here, we propose an analytical schema which groups unbundling actions according to the logic for

unbundling. In this categorization, unbundling operations are motivated either by legal, market or strategy logics.

Montgomery *et al.* (1984) propose a segmentation with five types of unbundling: undiscussed divestitures, strategic divestitures, sales of undesired units, forced divestitures, and sales in response to liquidity concerns. This subjective categorization tries to link corporate strategy and financial valuation. We believe, however, that it fails to account for some of the reasons behind unbundling operations. We propose a new segmentation of unbundling, which we believe to be more complete. We ascribe unbundling to three different origins: legal, market and strategy origins.

1. From a *legal* perspective, divestitures can be categorized as either voluntary or involuntary (Montgomery, Thomas, & Kamath, 1984). A company may voluntarily decide to divest part of its business for strategic, financial or organizational reasons. An involuntary divestiture, by contrast, is normally a reaction to legal and/or regulatory difficulties (Hite & Owers, 1983; Montgomery *et al.*, 1984; Vijh, 2002). Boudreaux (1975) and Montgomery *et al.* (1984) find that, while voluntary divestiture announcements are surrounded by positive price movements, the opposite applies to involuntary divestitures. Most earlier research did not really make a distinction between voluntary and involuntary unbundling decisions. More recently, though, strategy researchers have focused mainly on voluntary divestitures. These are strategic moves willingly made by companies.

2. The *strategic* perspective suggests that firms decide to divest for either corrective or proactive reasons. Corrective divestitures are intended to make up for previous strategic mistakes (Hitt *et al.*, 1996; Porter, 1987), to reduce over-diversification (Hoskisson *et al.*, 1994; Markides, 1992a), to refocus on core businesses (Markides, 1992a; Seth *et al.*, 1993), to realign corporate strategy with the firm's identity (Mitchell, 1994; Zuckerman, 2000), to react to an increase in industry-level competition (Aron, 1991), to eliminate negative synergies (Linn & Rozeff, 1985; Miles & Rosenfeld, 1983; Rosenfeld, 1984), or to resolve organizational issues such as bad governance (Hoskisson *et al.*, 1994). The purpose of proactive divestitures is to restructure the company's asset portfolio (Bowman *et al.*, 1999; Hitt *et al.*, 1996) by routinely redesigning, splitting, transferring, or exiting businesses to adapt to changing market opportunities (Eisenhardt *et al.*, 1999; Siggelkow, 2002). This reconfiguration process is aimed at designing a more efficient governance form (Seward *et al.*, 1996), improving performance and profitability (Fluck & Lynch, 1999; Haynes, Thompson, & Wright, 2002; Mitchell, 1994; Woo, Willard, & Daellenbach, 1992), obtaining new cash flows (Hitt *et al.*, 1996; Jensen, 1989), reducing high levels of debt (Allen & McConnell, 1998; Hitt *et al.*, 1996; Montgomery *et al.*, 1984) or tax payments (John, 1993; Schipper *et al.*, 1986; Vijh, 2002), getting better contracts from regulators (Schipper *et al.*, 1986; Woo *et al.*, 1992), or improving corporate innovativeness and entrepreneurship (Cassiman & Ueda, 2004; Garvin, 1983).

3. At *market* level, we propose a distinction between defensive and aggressive reasons. Hopkins (1991) tests the "defensive response" explanation of the link between acquisition and divestiture. He claims that acquisitions can be a defensive reaction to weak or deteriorating industry conditions and competitive position, and that the attractiveness and concentration of the firm's home industry are positively related to unbundling decisions. Duhaime and Baird (1987) find that the reasons behind divesting decisions are aggressive for medium-sized units and defensive for small and large units. As

> far as the attitude of the buyer and seller is concerned, it seems that the parent gets slightly lower total returns from transactions where there are aggressive buyers and/or sellers (Bowman *et al.*, 1999).

Most divestitures can be predicted correctly on the basis of an analysis of the industry situation, competitiveness and attractiveness and of the parent's motivations and conditions.

Are we dealing with different phenomena?

Each of these analytical perspectives is not focalized and limited to just one specific aspect of the unbundling phenomenon. These categories are not mutually exclusive.

In some cases it is not easy to determine whether an unbundling operation is a corrective or a proactive decision. For example, an involuntary divestiture can also be considered a corrective strategic action, to adjust the corporate strategy to existing legal constraints. Similarly, a defensive approach to market conditions can be interpreted as a correction of an obsolete or misaligned strategy. A proactive strategy may have no aggressive intentions or consequences, as in the case of the first mover, who decides to divest. Divestitures may be simultaneously an adaptation to regulatory and legal constraints, a reaction to environmental changes and variations in industry level, and a strategy to obtain and retain competitive advantage.

In all cases, it is important that researchers take into considerations the different logics behind unbundling operations. Mostly, it is important to distinguish between voluntary –for strategic or market reasons– and involuntary –for legal and/or regulatory constraints– operations when analyzing unbundling. The logics are different and therefore the outcomes can likewise be expected to be different.

A FRAMEWORK FOR CATEGORIZING RESEARCH ON UNBUNDLING

Overview of the model

We propose a framework to help classify and integrate current literature on divestiture. We group existing research into three streams: antecedents, decision and process management, and outcome. The diagram presented in Figure 2, adapted from Johnson (1996), offers a schematic framework to classify existing literature on divestitures and divestments.

Figure 2. Classificatory framework: content of antecedents, process and outcome categories

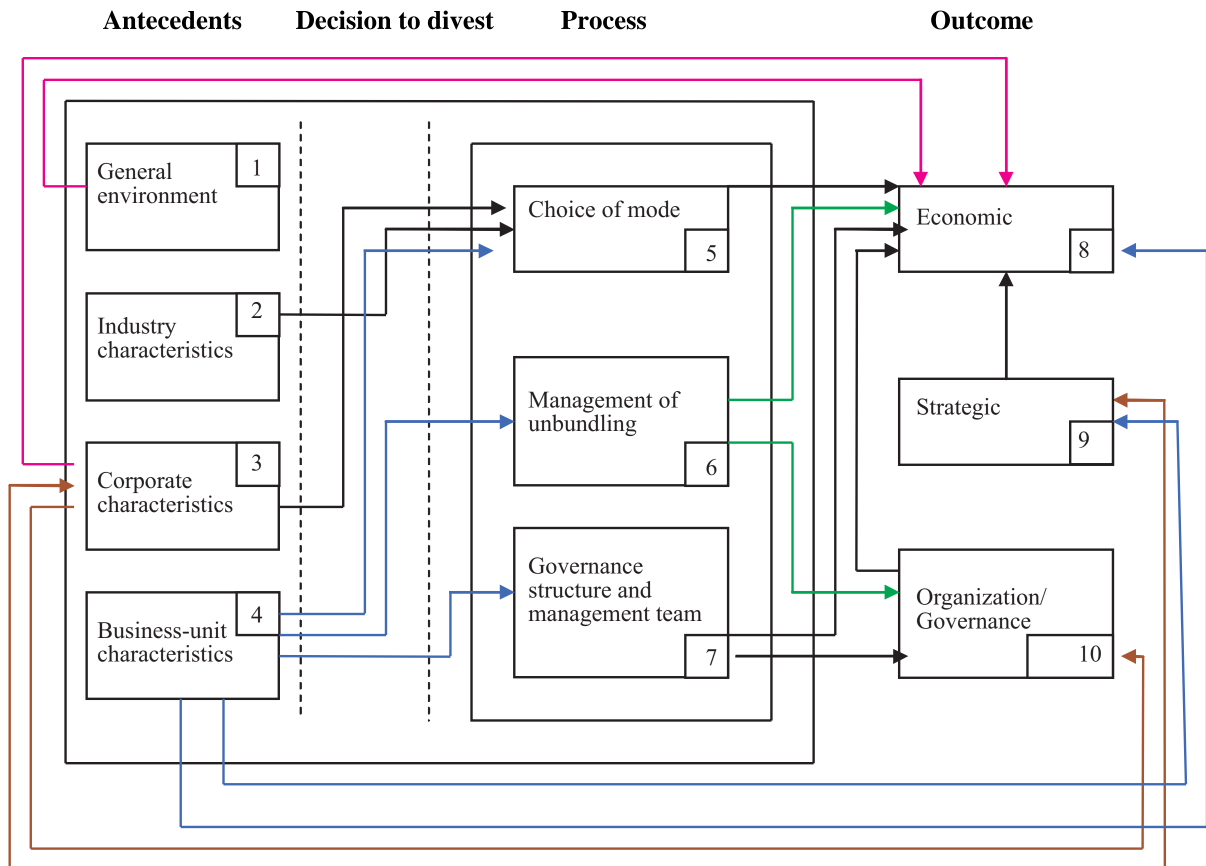

Figure 2 consists of 10 boxes that represent central concepts in research on unbundling. It includes antecedents (boxes 1 to 4 in the diagram: General Environment, Industry Characteristics, Corporate Characteristics, and Business-unit Characteristics), outcomes (boxes 8 to 10 in the diagram: Economic, Strategic, and Organization/Governance), and process (boxes 5 to 7 in the diagram: Choice of Mode, Management of Unbundling, Governance Structure and Management Team).

Within this framework, we distinguish between two types of studies on unbundling. The first set contains studies that fit a specific box. In general, these studies describe the relevant phenomenon and are "theme oriented". We examine each box of the three streams, in turn, as presented in Figure 2. The second set consists of studies that explore the linkages between boxes. These studies explore relationships between variables or concepts.

"Theme oriented" studies

"Theme oriented" studies focus on the content of one specific box. They investigate the factors that lead to unbundling, the process of unbundling, and the outcomes once the decision to divest has been taken. For example, we include in this category Khoroishilov's general equilibrium model (Khoroshilov, 2002) and Hoskisson's set of antecedents to unbundling intensity (Hoskisson *et al.*, 1994). Khoroishilov's conceptual model (2002) analyzes whether the decision to diversify and divest depends on external shocks. Hoskisson (1994) proposes and tests a theoretical model of corporate unbundling intensity, which depends on antecedents of the unbundling operation, such as governance structure, strategy and performance.

Table 1. Box content studies

		Illustrative studies	
Box	**Theme**	**Conceptual**	**Empirical**
1	General environment	(Garvin, 1983; Ito, 1995; Khoroshilov, 2002)	(Campa *et al.*, 2002; Duhaime *et al.*, 1984; Eisenhardt *et al.*, 1999; Rose *et al.*, 2005)
2	Industry characteristics	(Garvin, 1983; Ito, 1995; Porter, 1987)	(Campa *et al.*, 2002; Harrigan, 1981; Hopkins, 1991; Markides, 1992b; Rose *et al.*, 2005)
3	Corporate characteristics	(Fluck *et al.*, 1999; Ito, 1995; Khoroshilov, 2002; Markides, 1997; McGahan *et al.*, 2003a; Porter, 1987; Reuer & Shen, 2003; Singh, 1993; Zuckerman, 2000)	(Bergh, 1995, 1997; Berry, 2003; Bethel *et al.*, 1993; Campa *et al.*, 2002; Capron *et al.*, 2001; Chang, 1996; Dahlstrand, 1997; Duhaime *et al.*, 1984; Harrigan, 1981; Haynes *et al.*, 2003; Hitt *et al.*, 1996; Hoskisson *et al.*, 1994; Ito *et al.*, 1994; Kaplan, 1991; Karim & Mitchell, 2000; Markides, 1992b; Mitchell, 1994; Prahalad *et al.*, 1990; Reuer *et al.*, 2003; Wright *et al.*, 1997; Zuckerman, 2000)
4	B-unit characteristics	(Fluck *et al.*, 1999)	(Chang, 1996; Duhaime *et al.*, 1987; Duhaime *et al.*, 1984; Ito *et al.*, 1994; Lowe *et al.*, 2005; Zuckerman, 2000)
6	Management of unbundling	(Nees, 1978)	(Reuer *et al.*, 2003, 2004)
7	Governance structure and management team	(Aron, 1991; Johnson *et al.*, 1993; Nees, 1981)	(Bowman *et al.*, 1999; Gopinath *et al.*, 2000)
8	Economic outcome	(Cassiman *et al.*, 2004; Colak *et al.*, 2004; Fluck *et al.*, 1999)	(Alexander *et al.*, 1984; Boudreaux, 1975; Bowman *et al.*, 2001; Bowman *et al.*, 1993; Colak *et al.*, 2004; Denning *et al.*, 1990; Haynes *et al.*, 2002; Hearth *et al.*, 1984; Hite *et al.*, 1983; Khoroshilov, 2002; Klein, 1986; Klein *et al.*, 1991; Linn *et al.*, 1985; Makhija, 2004; Markides, 1992a; McGahan *et al.*, 2003a; Miles *et al.*, 1983; Montgomery *et al.*, 1984; Rosenfeld, 1984; Slovin *et al.*, 1995)
9	Strategic outcome	(Nees, 1978; Seth *et al.*, 1993)	(Ito *et al.*, 1994; Parhankangas *et al.*, 2003)
10	Organization/Governance outcome	(Baker *et al.*, 1999)	(Bowman *et al.*, 1999; Bruining *et al.*, 2002; Gopinath *et al.*, 2000; Kaplan, 1991; Seth *et al.*, 1993; Seward *et al.*, 1996)

Antecedents

In this section, we pinpoint the main factors presented in the literature as antecedents to the decision to unbundle part of a company's activities.

General environment (box 1)

Despite the difficulties of empirical testing (Duhaime *et al.*, 1984), the debate about whether and how economic conditions or the environment affect unbundling operations continues. While this debate is still open, a number of researchers have contended that unbundling can be a reaction to shocks in the environment (Campa & Kedia, 2002; Garvin, 1983; Ito, 1995; Rose & Ito, 2005). Khoroshilov (2002) finds that divestitures tend to occur during economic "booms", whereas Campa *et al.* (2002) claim the opposite. Divestitures seem more likely to occur in rapidly changing markets and highly competitive environments (Eisenhardt *et al.*, 1999; Ito, 1995). Ito (1995) and Garvin (1983) suggest that specific cultural and social contexts (homogeneous society, informal contracts, stable shareholders, and lack of an external labor market) and environments open to new firm formation facilitate unbundling operations.

Industry characteristics (box 2)

Various authors have emphasized the importance of a systematic analysis of industry attractiveness and the parent's competitive position for unbundling strategies (Garvin, 1983; Harrigan, 1981; Hopkins, 1991; Porter, 1987). In emerging industries, both new firms and established companies may be willing to encourage spin-offs (Garvin, 1983). In established industries, companies that do not yet operate in the industry are better able to identify niches and opportunities: spin-offs are the easiest mode of entry in the industry (Garvin, 1983).

Variables to explain unbundling operations at industry level include industry profitability (Markides, 1992b), industry concentration (Hopkins, 1991; Markides, 1992b), industry attractiveness to conglomerates (Campa *et al.*, 2002), industry merger and acquisition intensity (Campa *et al.*, 2002), industry advertising intensity (Markides, 1992b), industry R&D intensity (Markides, 1992b), industry size (Markides, 1992b), and parent's market share in the industry (Markides, 1992b).

Conversely, unbundling is deterred by other factors, such as economic exit barriers and differentiable and commodity-like product traits (Harrigan, 1981).

Evidence shows that there exist divesting patterns specifically in immature industries, mostly characterized by the presence of multiple market segments, information and start-up advantages, and transferable technologies, such as the construction, Hi-tech, and consulting industries (Garvin, 1983).

Corporate characteristics (box 3)

A number of researchers have emphasized the characteristics of companies undertaking an unbundling operation. In general, firms engaging in a voluntary divestiture are different from those that decide not to engage in a divestiture. Hence, we can expect them to have specific corporate characteristics.

From a *strategic perspective,* most divesting companies seem to be more diversified than their industry counterparts (Haynes, Thompson, & Wright, 2003; Hoskisson *et al.*, 1994). Exaggerated diversification pushes a company toward de-diversification and de-conglomeration as a correction of its strategic choices. However, in very specific contexts, divestitures are also used to enhance diversification, e.g. spin-offs in Japan (Ito, 1995). Diversification decreases innovativeness and entrepreneurial spirit within firms. Highly diversified companies tend to emphasize financial controls, to de-emphasize strategic controls and thereby produce less internal innovation (Hitt *et al.*, 1996), and to increase

managerial risk aversion (Hoskisson *et al.*, 1994). Therefore, a company may engage in unbundling operations to improve its innovation capacity and its entrepreneurial spirit, or to enter technology-based and immature industries (Garvin, 1983). Spin-offs, for example, can be used to stimulate corporate innovativeness and entrepreneurial spirit in the divested unit, while the parent earns some benefits from the new product or technology developed in the independent company (Garvin, 1983).

Restructuring a firm from a *financial standpoint* means changing its capital structure, returning to shareholders cash owned by managers and redistributing the weights of equity and debt (Bethel & Liebeskind, 1993). Current research has not reached a consensus about the effect of the parent's financial status on its decision to divest parts of its businesses. One line of research, led by Porter (1987), argues that divesting firms in the 1970s were generally poor performers (Duhaime & Baird, 1987; Haynes *et al.*, 2003; Hoskisson *et al.*, 1994; Zuckerman, 2000) and relatively indebted companies (Haynes *et al.*, 2003; Hoskisson *et al.*, 1994). More recent research has investigated the relationship between divestiture and conglomerate discount (Colak & Whited, 2004; Khoroshilov, 2002). Khoroshilov (2002) shows that companies traded at a diversification discount are more likely to refocus and hence to divest. Campa and Kedia (2002) find that firms with high historical average investments and low recent investments, with high historical average profitability and high recent profitability, and with high historical average value of assets are more likely to refocus. In contrast, for other researchers divestitures appear not to be significantly determined by the firm's performance (Berry, 2003; Singh, 1993).

Agency theorists believe that firms decide to engage in an unbundling operation because of issues at *governance* level (Hoskisson *et al.*, 1994; Markides, 1997). The reasons why many companies undertook restructuring operations in the 1980s had to do with issues between managers, owners and the board of directors. Weak governance, defined as the quality of the monitoring of strategy and performance in a firm, generally leads to high product diversification, weak strategy formulation, and consequently to poor performance (Haynes *et al.*, 2003; Hoskisson *et al.*, 1994). Changes in ownership (Bethel *et al.*, 1993), high levels of ownership concentration such as blockholders or institutional investors, and changes in top management (Haynes *et al.*, 2003) are frequent antecedents of unbundling operations (Bethel *et al.*, 1993; Hoskisson *et al.*, 1994). Problems at corporate control level and the consequent need to improve internal controls may lead to a reduction of diversification in scope and to divestiture of unrelated businesses (Bethel *et al.*, 1993; Markides, 1997).

Business unit characteristics (box 4)

The division's performance and financial status (Duhaime *et al.*, 1984; Zuckerman, 2000), relative size (Duhaime *et al.*, 1987), and relatedness to the focal firm (Chang, 1996; Duhaime *et al.*, 1984) are the most frequently mentioned characteristics of business units to explain unbundling operations.

An asset or a segment is less likely to be divested when it is generally strong, more profitable and when its prospects of future earnings are greater (Duhaime *et al.*, 1987; Duhaime *et al.*, 1984; Lowe *et al.*, 2005; Zuckerman, 2000). However, Fluck (1999) argues that an acquired subsidiary is divested only when it becomes sufficiently profitable.

There is general agreement about the relationship between unit size and divestiture decisions[3]. Defensive reasons are given for the divestiture of small and large units, while aggressive reasons are given for medium-sized units (Duhaime *et al.*, 1987). Duhaime (1987)

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[3] Only Trifts *et al.* (1990) find that size is not important for management buy-outs.

finds that there is a curvilinear relationship between unit size[4] and divestiture. There seem to be minimum efficient sizes for units in the business portfolios of diversified firms, sizes below which business units should not be acquired.

In contrast, unit relatedness, generally referred to as existing interdependencies among the firms' divisions, and unbundling decisions are negatively related (Duhaime *et al.*, 1984).

Process

In this section, we describe process factors affecting unbundling operations, as presented in current literature. Here, we refer these factors back only to the Management of Unbundling box and the Governance structure, management team and effects on employees box. We will discuss Choice of Mode later in the paper.

Management of unbundling (box 6)

The board of directors initiates an unbundling operation if the performance of the company is declining. Otherwise, the unbundling operation is more likely to be initiated by managers (Johnson, Hoskisson, & Hitt, 1993).

In both cases, the division manager assumes a central role. His collaboration is essential for the success of the divestiture, as he is the information supplier, implementer of secondary decisions, protector of morale and productivity in the divested division, host of potential acquirers when visiting the division, and finally a potential buyer (Nees, 1981). However, external investors may negatively perceive the role of management in unbundling operations, as in the case of a management buy-out. A divestiture to unit managers raises the issue of asymmetric information and conflict of interests. External investors may believe that unit managers are pursuing their specific interests (Nees, 1981; Trifts *et al.*, 1990) and that the divestiture may require specialized information not available to the division manager (Nees, 1981). On the other hand, managers often know more about a firm's investment opportunities than external investors do (Nees, 1981).

Governance structure, management team and effects on employees (box 7)

Both the governance structure and the role of managers affect the process and outcome of a divestiture, as does the reaction of employees. Board members, and specifically outside directors, will be involved in an unbundling operation only when managerial strategic controls are perceived to be weak and when the top management team is heterogeneous (Johnson *et al.*, 1993). Middle managers' active participation in the divesting process is essential for the success of the divestiture (Nees, 1981). Also, divestitures can be used to improve the effectiveness of corporate incentives. After a divestiture, the stock value of the product line is a much cleaner signal of managerial productivity, as there is no more noise from the rest of the multidivisional company (Aron, 1991).

Divestitures are often accompanied by changes in the organizational structure, such as divisional redesign and employment downsizing (Bowman *et al.*, 1999). If layoffs are understood by employees as necessary for corporate survival, they are perceived as just. But when layoffs merely stem from corporate unbundling, employees tend to perceive them as

[4] Unit size is here measured as the unit annual sales as a percent of the total firm annual sales (Duhaime *et al.*, 1987).

unnecessary and unjust. This may cause a sense of frustration and mistrust toward the parent company. Line management's cooperation (Nees, 1981) and straightforward managerial communication (Gopinath *et al.*, 2000) seem to positively influence employees' perceptions of procedural justice of layoffs, build post-divestiture trust in the organization, and influence employees' post-divestiture commitment to the new company (Gopinath *et al.*, 2000).

Outcomes

The literature is increasingly studying the effect of unbundling on shareholders' wealth, corporate strategy and corporate governance. In this section we try to understand whether the parent and/or the divested unit actually benefit from unbundling.

Economic outcome (box 8)

An increasing body of finance and strategic management literature studies the effect of unbundling on shareholders' wealth. The objective is to examine whether divestitures are value creating or value destroying, for both the parent and the divested unit. The literature has focused mainly on the market or book value effect of divestitures.

There is a general consensus about the positive effect that unbundling announcements have on the divesting firm's stock price on the announcement date. Substantial and significant strong positive share price variations are normally found on the announcement dates (Boudreaux, 1975; Haynes *et al.*, 2002; Hearth *et al.*, 1984; Markides, 1992a), sometimes also before (Boudreaux, 1975; Haynes *et al.*, 2002; Hearth *et al.*, 1984; Markides, 1992a; Montgomery *et al.*, 1984) and after it (Boudreaux, 1975; Hearth *et al.*, 1984; Montgomery *et al.*, 1984). The most common explanation for such positive results is the decrease of diversification of the parent (John & Ofek, 1995). Empirical evidence seems to indicate that divestitures may increase firm value for several reasons, such as a wealth redistribution between the parent's shareholders and bondholders (Denning & Shastri, 1990; Hite *et al.*, 1983; Linn *et al.*, 1985; Miles *et al.*, 1983; Palepu, 1990); a supposed information dissemination prior to public announcement (Linn *et al.*, 1985); or efficiency-related gains. Positive returns seem to depend specifically on three factors, i.e. on the type of unbundling, on the process of unbundling, and on the characteristics of the business unit. First, financial restructuring shows the strongest positive returns (Bowman & Helfat, 2001). Second, aspects of process management affecting the economic outcome include the way the divestiture is announced (Klein, 1986), and the capacity of managers to communicate to claimholders the improved profitability of the new project prior to the divestiture announcement (Fluck *et al.*, 1999). Third, the characteristics of the business unit affecting the return of unbundling are absolute size (larger divestitures show larger positive excess returns) (Hearth *et al.*, 1984; Klein, 1986; Miles *et al.*, 1983), size relative to the rest of the company (Hite *et al.*, 1983; Miles *et al.*, 1983), relatedness to the rest of the company (John *et al.*, 1995), presence in the same industry (Rose *et al.*, 2005), and the existence of long-term managerial incentive contracts (Tehranian, Travlos, & Waegelein, 1987).

On the other hand, some authors claim that unbundling has neutral or negative market outcomes. Woo *et al.* (1992) find no significant improvement in the pre- and post-divestiture performance of the divested unit, except for a slight decrease in return on assets in the post-spin-off performance of the divested unit. For negative reactions at market level two main explanations are proposed. The first concerns the information conveyed with the unbundling announcement and its credibility. The announcement may lack credibility if the company has not preceded the announcement with preparatory organizational changes, if unbundling is expected to have no impact on the firm's future, and if investors already expected this operation and the information was already reflected in the firm's stock price (Bowman *et al.*, 1993). The second explanation concerns the willingness of the company to

divest part of its business. Involuntary (i.e. forced by legislative or judicial reasons) unbundling announcements are surrounded by negative parent stock price movement (Boudreaux, 1975; Hearth *et al.*, 1984; Hite *et al.*, 1983).

Strategic outcome (box 9)

Corporate unbundling aims at more than a boost-up of the company's stock price. An essential goal of unbundling operations is to change and improve a firm's strategy. Divestitures are a natural evolution in business practice (Nees, 1978). They are a tool of business strategy. They can be vehicles for focusing the firm's strategic activities toward the most closely related businesses (Seth *et al.*, 1993). Nees (1978) gives managers some practical suggestions to maximize the strategic outcome of unbundling, such as to establish business policy committees, to formulate a zero-base strategy, and to establish a "divisions exchange market".

The intra-organizational relationship between the parent and its subsidiaries generates different types of spin-offs. An intense relationship between parent and divested unit is beneficial up to a limit, beyond which over-embeddedness starts (Parhankangas & Arenius, 2003). In this case, divestitures can be used to renew the parent firm's competencies. For example, spin-offs to develop new technologies and restructuring spin-offs operate in very different knowledge environments from their parent firms (Parhankangas *et al.*, 2003). In general, a parent operating in R&D intensive industries can use unbundling operations to implement strategic controls to foster internal innovation (Hitt *et al.*, 1996) and to increase managerial risk-taking through new investments in R&D (Hoskisson & Johnson, 1992).

Divested units benefit from unbundling because of a decrease in size (Bruining & Wright, 2002), reduced agency costs and increased flexibility (Seth *et al.*, 1993), the possibility for the divested unit to negotiate a more favorable set of contracts with the regulators (Schipper *et al.*, 1986), and reduced corporate taxes (Seth *et al.*, 1993).

Organization and governance (box 10)

Divestitures facilitate shaping the characteristics of the organization, such as the new ownership, and the implementation of efficient internal governance and control practices (Jensen, 1983; Seward *et al.*, 1996). Managers select the best governance form given the characteristics of the firm, of the target partner and the relationships between the underlying activities involved in restructuring (McGahan *et al.*, 2003a). Firms specify their governance preferences as part of their corporate strategies for contracting and expanding their boundaries. Divestitures are substitute governance forms for contracting firm boundaries (McGahan *et al.*, 2003a). Equity reorganizations also seem to facilitate the implementation of efficient internal governance and control practices, such as the selection of the new CEO, and of new compensation contracts for managers (Seward *et al.*, 1996). Baker, Gibbons and Murphy (1999) argue that formal ownership structures affect the feasibility of informal relational contracts. Informal delegation within an organization differs from formal delegation via divestiture; and divestiture, through asset transfer, achieves the delegation of formal authority. Asset ownership affects reneging temptations: the allocation of formal authority can influence whether a particular allocation of informal authority can be achieved in the medium to long term. Divestiture is efficient in circumstances where contractable delegation would be valuable but informal delegation is not feasible (Baker *et al.*, 1999).

Agency theory suggests that, in the post-divestiture period, the new ownership and capital structure can affect the motivations of the firm's key stakeholder groups and their objectives (Gopinath *et al.*, 2000; Palepu, 1990). Advantages for the divested subsidiary include a shorter distance between policy and implementation, a decrease in size and

complexity of the organizational structure, and easier delegation, action and consensus between managers and owners (Bruining *et al.*, 2002; Seth *et al.*, 1993). This all allows a more flexible decision making process and stimulates efficiency.

Comments on "theme oriented" studies

From Table 1 it is easy to identify the variables that have received most attention in research on unbundling. Within Antecedents, it is the Corporate Characteristics category. Possibly this is because divestitures are often perceived as dependent on the firm's specific characteristics, rather than on external variables such as the general environment or the industry. Within the Outcome category, Economic Outcome receives the greatest attention. This may be explained by two reasons. First, divesting managers are more concerned with their company's short-term economic performance. This implies that economic-results based analyses have a broader audience. Second, this type of analyses –mostly on *ex post* performance– uses public data, which are easy for researchers to access.

Linkage-exploring studies

Studies in the "linkage exploring" category focus on contingency-type relationships between several variables. This type of study analyzes the connection between two or more variables in the three streams: Antecedents, Process and Outcome. Within this category, we tried to identify as many linkages between variables or concepts as have been explored in empirical studies. The "linkage exploring" studies category includes, for example, Trift's (1990) analysis on the impact on economic performance from selling to unit managers. Variables at Antecedents, Process and Outcome level, such as asymmetric information, increased job security and reduced agency and servicing costs, affect parent-firm shareholder wealth (Trifts *et al.*, 1990). "Linkage exploring" studies are presented in three different tables. Table 2 presents empirical studies, going beyond the post-unbundling economic outcome. In Table 3 we use the same criterion, but for conceptual studies. Table 4 presents papers with economic performance as dependent variable, which are typically published in finance journals. These categorizations immediately show which links have been most explored. It is easy to identify gaps in the current literature. Some links have never been discussed in any paper.

Table 2. Linkage exploring empirical studies (non-finance)

Empirical Study (non-finance)	Link	Key ideas/findings
(Bergh, 1995; Duhaime *et al.*, 1987)	4 to 9	- Curvilinear relationship between unit size and reason for divestment. Defensive reasons are given for divestment of small and large units, while aggressive reasons are given for medium-sized units. - Ownership concentration is positively associated with the sale of unrelated and small units. - There may exist minimum efficient sizes for units in the business portfolios of diversified firms, sizes below which BU should not be acquired. - Moderate-sized units are divested as part of a strategic reorientation of the company despite their relatedness to other units.
(Bergh, 1995; Duhaime *et al.*, 1987)	4 to 8	- Returns on small units had to be abnormally high for top managers to stay interested. - Debt/equity ratio, dividend policy and stock price are perceived as exerting greater influence on decisions to divest larger units than medium units than small units. Most firms had lower ROE than industry average when divestment decisions were made. - Post-sell-off performance of the parent is associated negatively with the relatedness of the unit sold.

(Dahlstrand, 1997; Jensen, 1989; Parhankangas *et al.*, 2003)	3 to 9	- ESOs have a higher degree of technology transfer. - Founder's ideas were not utilized by parent company. - Primary source of gains from LBOs is organizational changes that lead to improvements in the company's operating and investment decisions, by providing to managers and their monitors superior incentives, derived from increased management ownership and high financial leverage. - Management equity ownership ensures that managers do not meet debt payments through short-term cash flow improvements at the expense of long-term value. - Presence and participation of external equity investors in governance lead to improved monitoring of managers' performance. - Study identifies 3 clusters of spin-offs, according to the collaboration between the parent and the spin-off, and the dependence of the spin-off from the resources provided by parent: spin-offs developing new technologies, spin-offs serving new markets, restructuring spin-offs.
(McGahan *et al.*, 2003b)	3 to 10	- Firms tend to choose integrative forms of governance (acquisitions) when: - There is a high degree of uncertainty and asset specificity but low internal organization costs associated with the transactions. - Either the focal or the target firm is advertising-intensive but not R&D intensive. - The focal and target firm are in related businesses, have dissimilar levels of R&D expenditures and are balanced in size. - The business subject to transaction is also related to the focal firm's main business. - The focal firm is diversified and has prior acquisition experience but little alliance experience.
(Gopinath *et al.*, 2000)	6&7 to 10	- Employee perceptions of procedural justice regarding the divestiture cause trust and later post-divestiture commitment to the organization, and affect trust and commitment more into the new company. - Managerial communications during divestiture process increase perceptions of procedural justice of divestiture and layoffs.
(Duhaime *et al.*, 1987)	4 to 6&7	- Managers of smaller units generally have greater involvement in the decision process. - With larger units, divestment decisions are less influenced by reluctance to spend the management time required to solve the unit's problems, than by the effects that not divesting will have on the firm's image and financial position.

Table 3. Linkage exploring conceptual studies (non-finance)

Conceptual Study (non-finance)	**Link**	**Key ideas/findings**
(Aron, 1991)	10 to 3	- The possibility of a future spin-off improves current incentives for divisional managers, even if the spin-off rarely actually occurs. - New investment in spin-offs in the period immediately after spin-off will be higher than before spin-off and higher than in firms with similar characteristics but which didn't spin-off. - Improved managerial incentives created by stock-based compensation after spin-off lead to higher firm value.
(John, 1993; Singh, 1993)	3 to 9, 6 to 8	- Any incremental value of spin-off results from the combined effect of changes in agency costs and tax shields. - Coinsurance effect on investment incentives dominates the effect of a flexible allocation of debt across technologies in a spin-off. - The larger differences in R&D expenditures and intangible assets within high technology industries, the more likely are spin-offs to occur. - Divestitures appear to be more than just a phenomenon associated with poorly-performing businesses of the firm. - Loss of morale and high levels of turnover have been identified as causes of post-merger turbulence.

Table 4. Linkage exploring empirical studies (finance)

Empirical Study (finance)	Link	Key ideas/findings
(Alexander *et al.*, 1984; Allen *et al.*, 1998; Haynes *et al.*, 2002; Hite *et al.*, 1983; Kaplan *et al.*, 1992; Klein *et al.*, 1991; Linn *et al.*, 1985; Markides, 1992a; Montgomery *et al.*, 1984; Nanda, 1991; Palepu, 1990; Rose *et al.*, 2005; Schipper *et al.*, 1986; Vijh, 2002)	3 to 8	There is a general consensus about the positive effect that unbundling announcements have on the divesting firm's stock price on the announcement date. Boudreaux (1975) and Hearth and Zaima (1984) find positive market reactions before, during and after the divestiture announcement. Substantial and significant strong positive share price variations are normally found on the announcement dates (Haynes *et al.*, 2002; Markides, 1992a), sometimes also before (Haynes *et al.*, 2002; Markides, 1992a; Montgomery *et al.*, 1984) and after it (Montgomery *et al.*, 1984).
(Klein, 1986)	4 to 8	There is a positive relationship between the relative size of the divestiture and the announcement day returns: larger sell-offs produce larger share day price responses.
(Palepu, 1990)	3 to 9	- LBOs have 4 main characteristics: high leverage, large management ownership, active corporate governance, loss of investors' access to liquid public equity markets. - LBOs seem to create value for stockholders through significant operating performance improvements, transfers from employees, from taxpayers and from pre-buyout debtholders and overpayment by post-buyout investors.- **LBOs have two opposite effects on firm risk: they increase leverage associated with financial risks, but changes in the organizational structure and strategy reduce business risk. Therefore, LBO investors bear lower risk than comparably levered investments in public corporations.**
(Palepu, 1990)	3 to 10	- Some pre-buyout bondholders suffer losses at the buyout, but these losses account for a very small fraction of the total gains to pre-buyout shareholders.
(Trifts *et al.*, 1990)	6 to 8	- The possible negative effects perceived to exist from the potential conflict of interest or from asymmetric information are offset by one or more of the positive effects of increased job security and reduced agency and servicing costs. - Shareholders of both firms share nearly equally in the transaction: the transaction's synergistic effects are not restricted to the selling firm.
(Woo *et al.*, 1992)	9 to 8	- Following divestiture, the performance gains of related subsidiaries exceed those of unrelated subsidiaries

Tables 2, 3 and 4 might seem to emphasize content issues. For example, researchers seem so far to have neglected the links, if there are any, between General Environment (box 1) and Process stream (boxes 5, 6 and 7), and between Strategic (box 9) and Organization/ Governance (box 10) outcomes. Similarly, Industry characteristics (box 2), even if analyzed in the "content box" type of research, are not related to any other of the boxes in the diagram. Industry characteristics seem to affect only the unbundling decision, but not the process or the outcomes.

Corporate characteristics (box 3) and Strategic Outcome (box 9) are connected with a bidirectional arrow. The parent, with specific strategic characteristics prior to the unbundling, pursues strategic objectives in the divesting operation. The argument follows essentially from the studies of Bowman *et al.* (1999) and Hitt *et al.* (1996). Hence, we draw a bidirectional link. We were expecting the same reasoning to apply also to other links, such as between Economic performance (box 3) and Economic outcome (box 8). However, the current literature does not consider any other bidirectional connections than those between box 3 and box 9.

Boxes in the process stream are not considered to be affected by the antecedents of the operation or to participate in influencing its outcomes.

Comments on Choice of mode (box 5)

The Choice of mode (box 5) can be included in both "theme oriented" studies and "linkage exploring" studies. In this section, we present the findings of the current literature on Choice of mode. Within the Antecedents category, most attention is paid to Corporate Characteristics (box 3). Within the Outcome category, Choice of mode is linked mostly to Economic outcome (box 8). Some authors compare the different unbundling modes, portraying their antecedents and outcomes (McGahan *et al.*, 2003a, 2003b; Montgomery *et al.*, 1984; Powers, 2001; Slovin *et al.*, 1995).

1. A parent undergoes a carve-out when it has poor operating performance, high leverage, need for external financing and its capital is constrained (Allen *et al.*, 1998; Powers, 2001), and when outside investors are likely to price the new shares higher than the managers' perceived value (Slovin *et al.*, 1995). A company choosing to engage in a carve-out is releasing information about the existence of positive net-present-value projects (Schipper *et al.*, 1986). Typically, the parent choosing a carve-out wishes to retain operating synergies or benefits of tax consolidation and means to re-acquire the public shares (Schipper *et al.*, 1986). Often, the parent knows that the carve-out is an intermediate stage for the divested unit before it is divested it into another mode (Klein *et al.*, 1991; Slovin *et al.*, 1995). Carve-outs allow a larger set of firms to undertake valuable projects, financing new investment opportunities separately through the carved-out company (Allen *et al.*, 1998; Myers & Majluf, 1984). Another reason to choose the carve-out mode is to improve the asset management structure through new incentive contracts and new responsibilities (Schipper *et al.*, 1986). Carved-out units are considered a high-value asset (Powers, 2001) and operate in an industry related to other parent industries (Powers, 2001).

2. Firms tend to *spin-off* a business unit when the resources and competencies of the subsidiary are valuable, but managing them is less effective under full ownership (Rose *et al.*, 2005). Parents choose a spin-off if they are operating in a highly changing and competitive environment (Aron, 1991; Garvin, 1983; Ito, 1995); if they want to eliminate negative synergies in their structure; if they wish to boost entrepreneurial spirit and reduce turnover (Garvin, 1983); if, within high technology industries, there are great differences in R&D expenditures and intangible assets (John, 1993); and if managers believe that the market is mis-valuing the firm in its current organizational form (the so called hubris hypothesis, (Linn *et al.*, 1985). In general, the spin-off parents are not too diversified and the division to be spun-off is a low-value asset (Powers, 2001). Since spin-offs reduce the size of the parent manager's "empire" without a corresponding receipt of cash, one might expect incentives for the managers of the divesting parents to be more closely aligned with the value-maximizing objectives of shareholders (Powers, 2001: p.3). The parent company can use the unbundling operation to implement efficient internal governance and control practices in the spun-off firm (Seward *et al.*, 1996), to reduce debt or give special dividends to shareholders using the proceeds of the sale (Bowman *et al.*, 1999), and to reduce agency costs and create tax shields (John, 1993). A spin-off may truly be a method for increasing total firm value without any of the complicating motives that seem to impact sell-off and carve-out decisions (Powers, 2001: p.3).

3. A company engages in a *management buy-out*, when the divested division managers are ready to pay for the unit a higher price than the value perceived by the parent, if the parent wants to maximize the cash flow from the sale; and when existing managers will continue to run the divested unit efficiently, if the parent is interested in its post-divestiture performance (Seth *et al.*, 1993; Singh, 1993; Trifts *et al.*, 1990). MBOs often continue to operate significant portions of the original assets (Seth *et al.*, 1993).

4. Parents opt for a complete separation via a *sell-off* when they do not want to maintain a trading relationship (Rose *et al.*, 2005). This occurs when subsidiaries have poor operating performance, high leverage, are highly diversified, and operate in underperforming industries (Powers, 2001). When compared to their parents, sell-off divisions are low-value assets and operate in industries different from the other parent industries (Powers, 2001). Parents seem to use sell-offs as a way of "taking out the trash" (Powers, 2001: p.3).

To summarize, the decision to choose a sell-off or carve-out depends on three factors: the characteristics of the business unit (it is worth selling, it performs well, it is related to the parent's businesses, it is related to the other parent industries); the characteristics of the parent (performance, leverage, need for cash, diversification); and the characteristics of the environment (pace of growth and performance of industry). Given a need for external finance, the decision to choose a sell-off or carve-out rests on whether the parent firm has something worthwhile to sell. Carve-out divisions show a better operating performance than their parents and are significantly more profitable and faster growing than spin-off divisions, which in turn are more profitable and faster growing than sell-off divisions (Powers, 2001). These factors are reflected in the relative selling prices of the various divisions: relative to the book value of their assets, carve-out divisions sell for the highest price whereas sell-off divisions sell for the lowest price (Powers, 2001). The choice between an MBO or a sell-off or a carve-out then depends on the prospective price.

A CRITICAL ANALYSIS OF RESEARCH ON CORPORATE UNBUNDLING

From the above analysis it appears that empirical and conceptual research on divestiture has investigated some aspects of unbundling more than others. The most recurrent research questions in the literature concern the characteristics of divesting firms and the effect of unbundling on shareholders' wealth.

Measurement of performance

A divestiture affects the performance of the divested unit and of the divesting parent. Variations in the latter are easy to evaluate, while changes in the former, mostly in the case of a sell-off, may be more difficult to identify. The total economic effect of unbundling is captured by changes in the stock market price of the company or by its operative profit. Accordingly, researchers use market performance or accounting performance to measure the effect of unbundling.

Measures and methods

Analyses of the economic performance of the divesting parent or of the divested unit use either market-based measures or accounting-based measures.

Market-based measures are used prevalently in event studies. The effects of the unbundling announcement are normally measured using Fama's Cumulative Average Residuals (CARs), (Fama, Fisher, Jensen, & Roll, 1969). The estimation period for the parameters of the event study methodology goes from 5 years prior to the event (Montgomery *et al.*, 1984) to 90 days after the event (Linn *et al.*, 1985), depending on the study. It is mostly finance-based papers that use event study and CARs to analyze corporate performance (Alexander, Benson, & Kampmeyer, 1984; Allen *et al.*, 1998; Boudreaux, 1975; Denning *et al.*, 1990; Hearth *et al.*, 1984; Hite *et al.*, 1983; Klein, 1986; Klein *et al.*, 1991; Linn *et al.*, 1985; Markides, 1992a; Miles *et al.*, 1983; Montgomery *et al.*, 1984; Rosenfeld, 1984; Schipper *et al.*, 1986; Seward *et al.*, 1996; Slovin *et al.*, 1995; Vijh, 2002; Wright & Ferris, 1997). Colak and Whited (2004) suggest that positive results of unbundling operations may be due to a sample bias (endogeneity bias: firms which decide to divest are different from those which decide not to divest) and measurement errors (use of Tobin's q).

When research uses accounting measures, the study period varies from a few years (Woo *et al.*, 1992) to a few days surrounding the event (Hearth *et al.*, 1984). The parent's ex-post performance is calculated using return on assets (Bergh, 1995; Berry, 2003; Montgomery & Thomas, 1988; Woo *et al.*, 1992), return on equity (Boudreaux, 1975), return on capital employed (Haynes *et al.*, 2002), return on sales (Berry, 2003) or inflation-adjusted sales growth (Woo *et al.*, 1992), market-to-book ratio (Woo *et al.*, 1992), average stock market price and its variations (McGahan *et al.*, 2003a), financial strength as return on equity compared to industry average (Alexander *et al.*, 1984; Duhaime *et al.*, 1987), CAPM alpha (Berry, 2003; Kaplan & Weisbach, 1992; Woo *et al.*, 1992), liquidity and leverage as current ratio (pretax assets/current liabilities), interest coverage (pretax income plus interest expense, all divided by interest expense) and debt ratio (Montgomery *et al.*, 1988).

Recent studies increasingly use accounting-based measures. This type of analysis complements the broader literature focusing on market-based measures. Only a few studies have applied both accounting-based and market-based measures (Boudreaux, 1975; Hearth *et al.*, 1984).

Since alternative measures are available, we suggest using an integrative approach and relying on multiple measures in future research.

Geographic and industry context

Most of the current literature on unbundling does not distinguish between industries and sectors, but focuses essentially on large US public companies.

Normally, authors tend to filter companies according to criteria such as public ownership, presence on a US exchange or availability of data on public databases and do not select companies according to sector or industry. Exceptions are Berry (2003) and Reuer and Shen (2004), for the manufacturing sector; Rose and Ito (2005), for the service sector; Mitchell (1994), for the medical sector; Gopinath and Becker (2000), for the medical products division of a large chemical company; Anand *et al.* (1997), for the defense-sector dependent industries; and Woo *et al.* (1992) for non-financial firms. Furthermore, only few authors integrate these databases with personal interviews and direct contacts with the studied companies.

As far as non-US studies are concerned, only Nees (1981), Capron *et al.* (2001), Dahlstrand (1997), Nees (1981), and Makhija (2004) consider European companies; Haynes *et al.* (2002), UK public companies; Wright and Ferris (1997), South African firms; and Ito and Rose, (1994), Ito (1995) and Rose and Ito (2005), Japanese companies.

Directions for future research

This paper presents a classificatory framework for understanding why similar antecedents of unbundling can produce different outcomes. Although gaps in existing literature have been pinpointed in the previous sections of the paper, we synthesize them here. These arguments are presented here to stimulate further research and discussion. We also discuss the implications of our framework for future theoretical and empirical analysis and management practice.

Need for process studies

In the proposed framework, the greatest research gap appears to be in the process stream. In general, the existing literature prefers to focus on antecedents and outcomes. We believe that more research is needed on the process of unbundling and the decision-making dynamics. First, research on the unbundling process could distinguish between intended and unanticipated outcomes, i.e. not expected in advance by the actors. For example, McKinley and Scherer (2000) claim that organizational restructuring has two unanticipated consequences. At organizational level, restructuring has the unanticipated consequence of producing cognitive order for top executives. At environmental level, restructuring has the unanticipated consequence of contributing to the long-term environmental turbulence.

Second, mainly studies focusing on the economic outcome of unbundling have neglected variables at the process management level. Studies that focus only on the link between corporate characteristics, such as the management team, and economic outcome, for instance, fail to explain how the management team or employees' perceptions, other than on layoffs, affect the outcome of the unbundling operation. Factors at process level, rather than simply antecedents, may affect the outcome of the unbundling operation and enhance a firm's competitive position and performance. Research including process-level variables could help to determine ex-ante whether, in what circumstances and how unbundling operations increase value.

In sum, we believe that researchers now need to begin to address process issues in unbundling, for two reasons. First, this analysis can shed light on unbundling in general, making managers aware also of the unanticipated consequences of unbundling. Second, the link between antecedents and outcomes may be moderated by a sum of other factors at process level.

We welcome research run by multidisciplinary teams, using a more complete approach. We do not claim that this will bring uniformity and convergence of approaches or results. But, from a strategic standpoint, we do claim that the interaction of different perspectives, such as the sociological and psychological ones, can possibly provide a richer understanding of unbundling operations. This seems particularly important in the analysis of the "process" of unbundling, which can only be partially understood if analyzed from one single perspective. The richness of this field of research derives mainly from the diversity in tools, approaches and methodologies. Such research should entail fine-grained methodologies, such as intensive field research and case studies. Finally, these methodologies could also help in understanding how to operationalize the various research gaps identified in this paper.

Need for studies on long-term effects

Unexplored aspects of the outcomes include the investigation of the long-term consequences of unbundling operations, mostly on the divesting parent company[5].

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[5] Tehranian *et al.* (1987) and Wright *et al.* (1994) represent an exception.

Unbundling does not have to be a once-in-a-lifetime event, but may be a means for the company to continuously adapt to external and internal changes. Analysis of the long-term consequences of unbundling could help managers to understand how they can determine *ex ante* whether unbundling will increase their firm's value and in which divesting modes such value is maximized. Linked to this issue is the design of the governance and control mechanisms of a divested firm and how it affects the firm's future.

Other areas for future research

Future research could analyze unbundling on different levels. Research could follow two directions. First, it could investigate industry characteristics, which have not been related to any other analytical variables. Industry characteristics seem to affect only the unbundling decision, but not its process and outcomes. Second, it could examine unbundling at country level. The institutional context, i.e. a country's capital, product and labor market, regulatory system, and mechanisms to enforce contracts, can affect corporate strategic choices. Future research could investigate unbundling operations at European level or distinguish between unbundling in emerging and developed countries. In this latter case, conglomerates may substitute for institutions (Khanna & Palepu, 1997). The idea that units divested from conglomerates can create more efficient and focused companies is based on the notion that these companies operate in efficient markets (Khanna *et al.*, 1997; Khanna & Palepu, 1999). In emerging countries, however, unbundling operations may end up creating more problems and destroying value for firms (Makhija, 2004). Khanna and Palepu (1997; 1999) claim that, in this context, companies should pursue restructuring operations rather than dismantling operations. They suggest reform of business practices and organizational forms, such as venture capital and LBOs, that can work as better institutional substitutes, providing the soft infrastructure of the Western economies (Khanna *et al.*, 1999). However, nobody has yet investigated the effect of unbundling through spin-offs, sell-offs or carve-outs in emerging countries.

CONCLUSION

This paper has provided an overview of research on unbundling from a multidisciplinary perspective, but with a particular focus on strategic management research in this area. We believe that research on unbundling needs to take a more daring approach that deals with process issues instead of continuing to focus essentially on more tractable but overemphasized content issues.

The purpose of this paper was to review the existing literature in order to clarify the terminology and present a more systematic approach to research on unbundling. We hope that our efforts to put forward a set of consistent definitions and specific criteria for differentiating operations (from restructuring downwards) and each type of unbundling will help to advance in this area.

We have proposed a framework for both clarifying and categorizing existing literature. Within this framework, it is easy to identify gaps of analysis. Therefore, we have been able to offer a critique of existing research and ideas for further research in this area.

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