

1-1-2016

To Divest or not to Divest: A Meta-Analysis of the Antecedents of Corporate Divestitures

Monica Adya

Marquette University, monica.adya@marquette.edu

To Divest or not to Divest: A Meta-Analysis of the Antecedents of Corporate Divestitures

Kalin D. Kolev
*Department of Management
College of Business Administration
Marquette University
Milwaukee, WI*

Abstract

Corporate divestitures have been identified as important strategic actions with a positive impact on firm performance. Yet, what is still missing in the strategic management literature is an integrative framework that quantitatively synthesizes the relative impact of various antecedents to divestitures, and theoretically reconciles the multitude of theories underlying divestiture research. To fill this gap, the author conducts a meta-analysis (based on a sample of 35 studies) and develops four broad categories of determinants: corporate governance; firm strategy; performance; and industry environment. Evidence is found that divestitures are driven mainly by prior divestment experience, structural factors (firm size and firm diversification) and weak unit performance. In addition, the relative predictive validity of several theoretical perspectives on divestment decisions is assessed.

Introduction

Corporate divestitures are major strategic decisions with important implications for firm competitiveness and profitability. Divestitures represent adjustments to a firm's ownership and business portfolio structure via a sell-off, spin-off and carve-out of a business unit, or sale of corporate assets (Brauer, 2006; Mulherin and Boone, 2000). Following prior research, I use the terms 'divestitures', 'divesting', 'divestment' and 'divestment activity' interchangeably in this paper.

Existing research provides evidence that divestitures alleviate problems of misallocation of corporate resources (Hoskisson and Johnson, 1992), improve managerial ability to coordinate a leaner organization (Hoskisson and Turk, 1990) and increase profitability (Lee and Madhavan, 2010). As such, divestitures strengthen internal structural arrangements and improve the competitive position in the external environment.

Despite the positive effects of divestitures, managers may be reluctant to undertake them, since they often come at a personal cost. First, divestitures might require the admission of prior mistakes and inappropriate strategies (e.g. McNamara, Moon and Bromiley, 2002). Second, divesting is inconsistent with the growth goals of managers (Donaldson and Lorsch, 1983), since it typically reduces firm size and managerial compensation. Finally, since divestitures lead to major structural changes in the firm, they generate intense political issues and resistance inside and outside the firm (Dial and Murphy, 1995). Since a decision to divest has important and beneficial strategic implications, but can be difficult to undertake, there are both theoretical and practical benefits in understanding the factors that facilitate or hinder divestitures. However, there are three factors that limit the ability to draw strong conclusions about divestiture antecedents from the extant literature. While prior research has identified a broad number of antecedents, the latter have usually been studied in isolation, with little focus on developing an integrative framework of divestiture determinants. In addition, there is empirical disagreement on the strength and sign of the relationship between certain antecedents and divestitures. Finally, while multiple theoretical

perspectives have been used to study divestitures, there is still a lack of consensus on which of them have the strongest predictive power regarding divestitures.

To fill this gap, I conduct a meta-analytic review, which develops an integrative framework of the most common divestiture drivers, reconciles existing empirical inconsistencies on the relationships between antecedents and divestitures, and synthesizes the theories best suited to explain divestitures. I aim to make several contributions to the literature.

First, contrary to the majority of existing divestiture research that studies the divestment decision in isolation, I build an integrative framework, arguing that divestitures are driven by factors related to internal inefficiencies and weak structural arrangements, and suboptimal conditions in the external environment. In particular, I build on prior theorizing (Brauer, 2006; Johnson, 1996) to suggest four broad categories of divestiture antecedents: corporate governance; firm strategy; performance; and industry environment determinants.

Second, via a meta-analysis I can obtain more robust effects, discuss with greater confidence the results obtained, and make broader generalizations on the validity of findings across various samples and research conditions. Also, with a meta-analysis I can resolve conflicting findings in existing research. For example, while some studies report a negative relationship between firm performance and divestitures (Hoskisson, Johnson and Moesel, 1994; Shimizu and Hitt, 2005), others find a positive one (Berry, 2010; Quigley and Hambrick, 2012). Similarly, some studies identify a positive association between managerial equity and divestitures (Chatterjee, Harrison and Bergh, 2003), but others provide evidence for a negative relationship (Sanders, 2001; Shimizu, 2007). Finally, I can assess the relative importance of different factors affecting divestitures and the predictive validity of their underlying theories.

Overall, this study allows the following questions to be answered: To what extent do various antecedents that can be derived from commonly used theories drive divestitures? Which commonly used theories are best suited to explain divestment decisions?

The paper is organized as follows. I begin by describing the overall framework of divestiture determinants and develop hypotheses on the factors affecting divestitures. Then, I describe the methodological approach, followed by the results. I conclude with a discussion of the findings, limitations and suggestions for future research.

Theory and hypotheses

Divestitures are major strategic decisions with critical implications for the firm's structure, competitive strategy and performance (Brauer, 2006). In other words, divestitures could be viewed as means to achieve optimal structural arrangements within the firm and strong competitive position in the external environment. Addressing these two objectives probably puts the firm in a better position to compete, achieve a competitive advantage and enhance profitability. If managers are to fulfill those two objectives, they need to focus on factors facilitating or hindering divestitures in order to achieve internal firm efficiency and external environmental adaptability. Subsequently, from a strategic management perspective, it is not only important to outline the antecedents of divestitures, but also to categorize them in a theoretical framework. Ultimately, I posit that divestitures are driven by factors related to: (a) internal inefficiencies and weak structural arrangements; and (b) suboptimal conditions in the external environment. Developing such a model of divestiture antecedents is consistent with several prior articles on divestitures (Brauer, 2006; Johnson, 1996; Moschieri and Mair, 2008), which have followed this internal–external framework and have argued for four broad categories of factors influencing divestitures: corporate governance determinants; firm strategy determinants; performance determinants; and industry environment determinants. Using this framework not only allows me to examine the magnitude of effect sizes for each of these antecedent factors, but also helps outline which of these categories has the highest predictive validity in terms of firms' engagement in divestiture activities. Furthermore, each of these categories of factors has been strongly related to a specific theory or theories, and the incorporation of the latter into the proposed framework could serve as a means of synthesis and assessment of the validity of those theories as they apply to corporate divestitures (cf. Slesman *et al.*, 2012).

In particular, I posit that firm factors such as strategy and performance determinants will have the strongest impact on divestitures, followed by corporate factors (corporate governance determinants) and industry environment determinants. These arguments are based on the idea that managers have greater control over internal firm factors, which would allow them to use divestitures in response to deficiencies in those internal factors. In addition, prior research on the role of corporate and industry factors (McGahan and Porter, 1997, 2002; Misangyi *et al.*, 2006) provides evidence that those factors matter less in driving firm strategic behavior.

Below I elaborate on each category of factors influencing divestitures.

Corporate governance determinants

Corporate governance determinants have been the most studied divestiture antecedents in prior research. The unifying theme among all governance determinants is that they influence the motivation and discretion of managers to undertake divestitures. Since divestitures generally benefit shareholders, but involve cognitive dissonance and managerial reluctance to implement (Dial and Murphy, 1995), the effectiveness of firm governance factors is likely to have an impact on the likelihood of divestitures (Sanders, 2001). The underlying theory behind the relationship between corporate governance factors and divestitures is agency theory (Jensen and Meckling, 1976). At the heart of agency theory lies the conflict of interests between shareholders and managers and the potential means through which these interests could converge. While shareholders strive for higher returns and wealth maximization, managers are self-interested and may engage in actions to increase personal wealth even at shareholders' expense. Without proper controls over managers, their actions could seriously affect firm wealth (Jensen and Meckling, 1976). For example, driven by self-serving objectives for firm growth (Donaldson and Lorsch, 1983), maintaining the status quo (Lant, Milliken and Batra, 1992), and reluctance to admit prior mistakes (McNamara, Moon and Bromiley, 2002), managers are reluctant to divest corporate divisions even if the latter are underperforming. However, with proper governance mechanisms in place, managers are more likely to engage in divestment activities. I examine the following

governance variables: boards of directors; large external shareholders; separation of CEO and board chairman positions (no duality); and managerial equity.

The theoretical argument behind the first three factors follows agency theory logic. More specifically, the stronger those governance mechanisms, the more likely firms will engage in shareholder-beneficial strategies, such as divestitures. For example, the level of (in)dependence of directors from executives, and especially the CEO, is particularly important for boards to fulfill their fiduciary duties. When the board is dominated by outsiders, they are more independent of the CEO and are more likely to challenge inefficient strategies and force the CEO to initiate actions which create shareholder value (cf. Kroll, Walters and Wright, 2008).

Similarly, the existence of large external shareholders serves as an effective monitoring mechanism that increases the interest alignment between managers and shareholders (Jensen and Meckling, 1976). External shareholders possess sizeable shares in the firm and have the leverage to exercise pressure on managers (Schnatterly, Shaw and Jennings, 2008) to execute value-enhancing strategies consistent with shareholders' interests (Bethel and Liebeskind, 1993).

In addition, CEOs who also serve as the chairman of the board (or position of duality) will be more likely to discourage divestitures for two reasons. First, because CEOs with duality have considerable influence over board members, they could filter information to board members and control the agenda of board meetings and deliberations in the boardroom (Finkelstein and D'Aveni, 1994). Thus, they are able to divert attention away from CEO-sensitive topics, such as potential divestitures of poorly performing divisions. Additionally, duality undermines directors' ability and motivation to monitor the CEO. Owing to fear of CEO retaliation, directors are less inclined to question CEO decisions, even if they consider those decisions inappropriate (Westphal and Bednar, 2005). Considering that CEOs are interested in maintaining the status quo and preserving their firms intact (Lant, Milliken and Batra, 1992), the duality position gives them strong power to prevent attempts at divesting corporate divisions.

The final antecedent factor under this category is managerial equity. When managers possess firm shares, they become partial owners of the firm, and their income is tied to its performance. This creates incentives for managers to pursue strategies that are beneficial for shareholders and for their personal wealth (Gomez-Mejia, Berrone and Franco-Santos, 2010). As such, classical agency theory suggests that managerial equity could align the interests of managers and shareholders (Dalton *et al.*, 2003) and encourage implementation of value-increasing activities, including divestitures.

However, findings from other domains in management challenge the above arguments. More specifically, I draw on research of self-identification and socio-emotional wealth to argue that managerial equity reduces the likelihood of divesting. Prior research shows that firm ownership leads to stronger managers' identification with their organization (French and Rosenstein, 1984) which enhances their emotional attachment to the firm, often called socio-emotional wealth (Gomez-Mejia *et al.*, 2007). This emotional attachment could lead to decision biases where managers favor strategies inconsistent with economic efficiency rationales. For example, Gomez-Mejia and colleagues (2007) find evidence that, in order to maintain their attachment with the organization (socio-emotional wealth), individuals are willing to sacrifice economic performance.

Translating this logic to divestitures, I argue that managerial ownership of the firm will reduce their willingness to dispose of firm assets, despite the fact that this decision is justified by performance improvements. Being partial owners helps managers to identify strongly with the firm, and this identification generates substantial non-economic benefits (Ashforth and Mael, 1989). In this case, divesting corporate assets (which enhances financial outcomes) could be viewed as secondary in priority to maintaining the firm intact (which is beneficial to self-identification with and attachment to the firm). Additionally, ownership enhances managerial influence over other firm stakeholders. Managers with large ownership stakes are able to obscure information about underperforming units, downplay the seriousness of units' financial failures and fend off internal and external pressures to divest those units (e.g. Gomez-Mejia, Nunez-Nickel and Gutierrez, 2001).

Overall, I offer the following hypothesis regarding the impact of corporate governance determinants on divestitures:

H1:

Firms will engage in more divestment activity if: (a) their boards are outsider-dominated; (b) there are large external shareholders; (c) there is no CEO duality; and (d) managerial equity is low.

Firm strategy determinants

Firm strategy has a major impact on the firm's ability to compete and is dependent on the firm's existing structural characteristics and accumulated experiences and routines. These structural arrangements and organizational experiences facilitate or hinder the firm in devising and implementing important strategic activities. Considering that divestitures are major strategic actions with strong performance implications (Lee and Madhavan, 2010), I posit that these two elements (structural characteristics and organizational experiences) of a firm's strategy will be important determinants of corporate divestitures (Johnson, 1996).

Under structural arrangements, I examine level of diversification, firm size and prior acquisitions, arguing that these factors contribute significantly to internal (in)efficiency. A common theoretical framework that could integrate the above factors is portfolio theory (Duhaime and Grant, 1984; Markides, 1992). Its main focus is on internal efficiencies and efficient management of corporate units within diversified corporations. In addition, the theory is concerned with the means and mechanisms through which managers could achieve appropriate and beneficial internal organizational structures and design. Thus, portfolio theory could view divestitures as means for solving suboptimal and inefficient forms of internal organizing.

Level of diversification is associated with a bigger number and more diverse divisions within the firm. Thus, a highly diversified firm is less dependent on a single division, and it becomes easier to divest the latter, especially when it experiences poor performance. Additionally,

beyond a certain level of diversification, firms begin to experience problems stemming from loss of control and misallocation of corporate resources (Ravenscraft and Scherer, 1987), inefficiencies (Hoskisson and Turk, 1990) and increased bureaucratic costs (Nayyar, 1992). Ultimately, as diversification increases, the organizational structure becomes more difficult to manage and more complex, which inhibits information-processing capabilities and translates into loss of corporate value (e.g. Berger and Ofek, 1995).

Similarly, firm size is associated with additional inefficiencies in managing the firm. Increasing firm boundaries inhibits executives' ability to manage its operations and procedures effectively. Larger size translates into higher levels of complexity, which undermine corporate control. Size also generates rigidity and tunnel vision (Miller and Chen, 1994), which inhibit the firm's awareness and quick response to market rivals. This jeopardizes the firm's ability to compete and ultimately leads to loss of competitive advantages. To counteract those tendencies, managers may downsize by divesting assets (e.g. Decker and Mellewigt, 2012).

Acquisitions are a common growth strategy that leads to increased levels of diversification and size, raising the complexity of the firm and thus placing more coordination and control burdens on managers (Ravenscraft and Scherer, 1987). Also, acquiring other companies requires additional efforts for the successful incorporation of those companies within the existing portfolio of businesses in the focal firm. This, however, diverts managerial attention away from the core organizational activities and generates costs associated with the integration of the newly added businesses into the existing lines of the firm's activities (e.g. Cannella and Hambrick, 1993). In general, to reduce inefficiencies, bureaucracy and complexity stemming from more diversification, larger size and numerous acquisitions, managers may engage in divestitures.

Organizational experiences are an important determinant of future firm behavior, because those experiences are incorporated into existing routines and practices and facilitate managerial decision-making (Haleblian, Kim and Rajagopalan, 2006). Through prior divestitures, managers generate useful experiences and lessons that guide them in their future engagement in divestitures. The theory that

underlies research on organization experiences is organizational learning theory (Levitt and March, 1988). It argues that firm strategic behavior is driven by organizational routines that are established through prior managerial experiences (Nelson and Winter, 1982). The more experienced managers become with a particular strategic action, the more confidence they gain, and the more likely they are to repeat that action (Haleblian, Kim and Rajagopalan, 2006).

When managers have engaged in divestitures, they become familiar with the process of divesting, which becomes institutionalized and enters the organization's set of routines (Nelson and Winter, 1982). The existence of routines generates a consistent pattern of conducting activities and creates pressure for managers to follow these patterns. Combined with the fact that divestitures generally accumulate firm wealth (Lee and Madhavan, 2010), this suggests that prior divestitures encourage managers to undertake additional divestitures in the future. Overall, the cumulative effects of divestiture experience and expected divestiture success may bolster managers' confidence in implementing subsequent divestitures, despite their inherent complexity. In support of this argument, prior research finds that experience with different types of major reorganizational changes in the firm is positively related to future such changes (Haleblian, Kim and Rajagopalan, 2006).

H2:

Firms will engage in more divestment activity if: (a) the firm is more diversified; (b) the firm is larger; (c) the firm has previously undertaken a larger number of acquisitions; and (d) the firm has previously completed a larger number of divestitures.

Performance determinants

One of the most commonly studied antecedents to divestitures has been prior performance at both the corporate and the unit level. Prior research argues that poor performance indicates organizational efficiency problems, and divestitures are used to reduce such problems (Johnson, 1996; Ravenscraft and Scherer, 1987). A theoretical framework that integrates the performance determinants of

divestitures is the behavioral theory of the firm (BTOF) (Cyert and March, 1963). The BTOF argues that managerial behavior is influenced by performance feedback obtained by comparing performance aspiration levels against current performance (Greve, 2003). When performance is strong and firms possess solid financial resources, they are less likely to deviate from their current routines and practices, thus enforcing managerial persistence and preservation of the status quo (Greve, 2003). However, when performance is below those aspirations, firms engage in a search for solutions to return to initially aspired levels of performance. Hence, prior poor performance leads to dissatisfaction with the status quo and forces managers to engage in change, such as divestitures. Furthermore, poor corporate performance is usually accompanied with weak balance sheets and inability to invest in new projects and innovate. In order to generate the funds necessary to pay debts or invest in new strategies, firms may decide to divest unprofitable corporate assets. As such, divestitures may serve as a tool to strengthen the financial position of the firm and achieve corporate efficiency. Additionally, strong corporate performance is an indication that current strategies are effective, and there is no need to make changes in corporate scope (Iyer and Miller, 2008).

Prior unit performance is also a strong driver of divestitures. When a corporate unit is underperforming, it sends a negative signal to corporate executives about its ability to achieve operational efficiency and gain competitive advantage. Thus, this unit is perceived as a burden to the entire organization by draining valuable corporate resources, and therefore should be divested (e.g. Brauer, 2008; Shimizu, 2007). Furthermore, since corporate units are evaluated on future prospects and on meeting internal financial criteria (e.g. Thomas and Waring, 1999), poor unit financial results reflect the inability of the unit to meet performance aspirations, which encourages its divestment.

Another factor closely related to prior performance is corporate resources or slack. When a firm is performing well and generates strong cash flows, it can build and set aside additional resources. To the contrary, a firm in financial distress is less likely to possess slack resources. In general, the availability of slack resources serves as a buffer and reduces the firm's sensitivity to performance misfortunes

and willingness to engage in major changes (Palmer and Wiseman, 1999). This large pool of slack resources leads managers to maintain the status quo and not change existing organizational structures and firm boundaries. However, when corporate resources are depleted, 'managers may increase efforts at raising resource levels through various risk-laden actions' (Palmer and Wiseman, 1999, p. 1043), including major strategic moves, such as divestitures.

H3:

Firms will engage in more divestment activity if: (a) prior corporate performance is low; (b) prior unit performance is low; and (c) slack is low.

Industry environment determinants

Industry characteristics affect the level of fit between the firm and its external environment and influence the amount of organizational change necessary to adapt to the environmental context. As a result, environmental factors have a direct bearing on managerial alertness to external conditions, assessment of the firm's fit with the environment, and the need for strategic changes (Wiersema and Bantel, 1993). The theoretical perspective that examines how industry conditions affect firm conduct and strategy is industrial organizational economics (IO economics) (Bain, 1968; Porter, 1980). In the context of divestitures, IO economics would suggest that the strategic decision to divest is driven by the industry structure in which the firm operates. More specifically, unfavorable conditions, such as increasing environmental uncertainty and decreasing or low environmental munificence, are likely to drive more divestitures.

Environmental uncertainty is associated with a high degree of unpredictability in the environment, which presents many unclear situations to organizational decision-makers (Duncan, 1972). Highly uncertain environments are characterized by instability and consistent changes that place 'tremendous cognitive demands' (Wiersema and Bantel, 1993 p. 488) on decision-makers and limit their ability to conduct appropriate evaluation of the external conditions and their fit with the firm. Thus, in highly uncertain settings, managers have great

difficulty developing their plans (conduct) in the market. This uncertainty is unsettling and reduces managers' ability to govern the firm efficiently (Bergh and Lawless, 1998) and, ultimately, raises the costs of hierarchical governance. A common approach to reducing those costs is for managers to focus internally and simplify organization structures (e.g. Palmer and Wiseman, 1999) by divesting corporate units (Keats and Hitt, 1988).

Environmental munificence is characterized by the availability of resources and the ability of the environment to support growth (Dess and Beard, 1984). Thus, highly munificent environments serve as a buffer from external hostilities (Wiersema and Bantel, 1993), reduce managers' alertness, and lead them to maintain the status quo in their firms. Alternatively, munificent markets provide more opportunities for managers to improve the performance of relatively weak divisions, and thus reduce the likelihood of divestiture of those divisions. In contrast, low environmental munificence leads to scarcity of resources and increased threats faced by managers. Simply stated, low-munificence industries do not provide a buffer against environmental hostilities (Parks and Conlon, 1995), have higher rates of rivalry and lower profit potential, and may encourage managers to engage in cost-cutting and restructuring activities, including divestitures. Stated formally:

H4:

Firms will engage in more divestment activity if: (a) environmental uncertainty is high; and (b) environmental munificence is low.

Methods

Sample

To identify the population of papers that tested the relationships between various antecedents and divestitures, searches for relevant articles were conducted in several databases, such as ABI/INFORM COMPLETE, ISI Web of Science, JSTOR, Business Source Premier and Academy of Management Proceedings. I focused only on published studies,¹ as recent theorizing finds strong evidence that the omission of unpublished work or the file drawer problem 'does not produce an

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inflation bias and does not pose a serious threat to the validity of meta-analytically derived conclusions' (Dalton *et al.*, 2012 p. 221). Furthermore, I relied only on peer-reviewed journals and left out books and book chapters. As a result, I identified 192 articles addressing divestitures and, after careful review, 35 studies were included (see Appendix Studies used in the meta-analysis), 158 relevant samples and total N = 188,078 for the antecedents–divestitures association. I did not specify a starting year of publications for the search, but the earliest articles coded dated back to 1986, and the latest ones were published in 2015. While I identified a large sample of studies based on the keyword searches, the number of studies that I could use for this inquiry was reduced for several reasons. Most importantly, the majority of divestiture research examined the performance implications of divestitures, rather than the antecedents of divestitures, rendering those studies unusable for the study. Additionally, a number of the articles were either theoretical in nature or lacked necessary data, such as sample size or correlation coefficients, to be meta-analyzed. I would like to acknowledge that, while the total sample of 35 articles is smaller than a recent meta-analysis on the performance implications of divestiture (Lee and Madhavan (2010) used 94 studies), it is comparable to other meta-analyses (e.g. Dalton *et al.*, 1999; Deutsch, 2005).

Inclusion criteria

While I strived to be broad and comprehensive by expanding beyond the management literature and including research in the accounting and finance fields, I had to remain focused and exclude academic fields that might have fundamentally different approaches to the divestiture construct (e.g. research treating employee lay-offs as divestment activities). As a result, I decided to follow prior meta-analytic research in the strategic management field with regard to the selection of journals (e.g. Dalton *et al.*, 1998, 1999; King *et al.*, 2004): see Table 1.

Table 1. List of journals used to identify divestiture studies	
Journal name	Impact factor^a
<i>Academy of Management Journal</i>	4.974
<i>Accounting Review</i>	2.234
<i>Administrative Science Quarterly</i>	2.394
<i>Applied Financial Economics</i>	0.64 ^b
<i>British Journal of Management</i>	1.909
<i>Financial Management</i>	0.873
<i>Journal of Accounting Research</i>	2.449
<i>Journal of Business</i>	NA
<i>Journal of Business Finance & Accounting</i>	1.261
<i>Journal of Finance</i>	6.033
<i>Journal of Financial Economics</i>	3.759
<i>Journal of Financial Research</i>	NA
<i>Journal of Management</i>	6.862
<i>Journal of Management Studies</i>	3.277
<i>Managerial and Decision Economics</i>	1.07 ^c
<i>Organization Science</i>	3.807
<i>Strategic Management Journal</i>	2.993
<i>Strategic Organization</i>	1.853

^aThe impact factor is for 2013.

^bAverage impact factor for 2011.

^cAverage impact factor over three-year period.

The key search words were derived in accordance with the various definitions of divestitures presented in prior review articles (Brauer, 2006; Johnson, 1996). The computer-aided search was based on the following keywords: divest, divestiture, divestment, spin-off, carve-out, split-up, sell-off, dediversification, refocusing, downscoping, disbanding, abandonment, and firm exit. In addition, I examined the reference lists of the potentially applicable articles for additional studies that might not have been identified through the database search. To be included in the lists, those studies had to include a correlation between the variables of interest or statistical data sufficient to calculate correlations. In addition, I included correlation coefficients only from studies in which I could conclude a causal

relationship between the antecedent variables and divestitures. That is, I included correlation coefficients only when the antecedent variables temporarily preceded the divestiture event (e.g. antecedent variables were measured at time $t-1$ and divestitures occurred at time t). Finally, I needed at least three studies to estimate the relationship between a particular antecedent and divestitures.

Coding

The initial step in the coding process included several meetings between the author and three additional coders, where we outlined coding rules and jointly coded seven articles. After the coders had become familiar with the coding procedures, the remaining articles were split among the author and the three coders for independent coding. I randomly selected several articles that were coded by everyone, and any discrepancies were resolved through additional discussions.

A list of the dependent and all independent variables and their definitions is provided in Table 2.

Table 2. Description of dependent and independent variables	
Variable name	Description
<i>Dependent variable</i>	
Divestment activity	Existence of divestiture(s) (coded as 1 if there was a divestiture and 0 otherwise); number of units or divisions divested; number of divestitures and divestment intensity (ratio of divested assets to total corporate assets).
<i>Independent variables</i>	
Outsider-dominated board	Ratio of independent to total number of directors (Dalton <i>et al.</i> , 1998).
Large external shareholders	Number of blockholders, blockholder equity and institutional equity combined together. Blockholders represent the number of shareholders with at least 5% stake in the company. Blockholder equity is the percentage corporate shares owned by shareholders with at least 5% stake in the company. Institutional equity is the amount of corporate shares owned by institutional investors, such as pension funds, mutual funds, and hedge funds, divided by the number of outstanding corporate shares ^a (Brickley, Lease and Smith, 1988).
Managerial equity	Amount of stock owned by the CEO and insider directors ^b (Dalton <i>et al.</i> , 2003).
Duality	A dummy variable coded as 1 if the CEO and board chairman positions are held by the same person and 0 otherwise (Boyd, 1995).
Prior acquisitions	Number of acquisitions conducted by the firm in prior periods.
Prior divestitures	Number of divestitures conducted by the firm in prior periods.
Firm slack resources	Slack resources have been operationalized as absorbed slack (selling, general and administrative expenses over sales), unabsorbed slack (current assets to current liabilities), potential slack (inverse ratio of debt to equity), and free cash flow ((operating income – taxes – interest expense – depreciation – preferred dividend – common dividend)/equity) (Bourgeois, 1981; Halebian <i>et al.</i> , 2012).
Prior corporate performance	Relied on multiple operationalizations used in prior research, such as return on assets (ROA), return on equity (ROE), return on sales (ROS), and Tobin's Q (Greve, 2003).
Prior unit performance	Return on assets at the unit level (ROA) (e.g. Greve, 2003).

Table 2. Description of dependent and independent variables	
Variable name	Description
Level of diversification	Entropy index ($\sum P_i \ln(1/P_i)$, where P_i is the sales attributed to segment i , and $\ln(1/P_i)$, the logarithm of the inverse of sales, is the weight for each segment i . (Jacquemin and Berry, 1979).
Firm size	Logarithm of firm assets or sales (Iyer and Miller, 2008).
Dynamism	Standard errors of regression coefficient, obtained from regressing total industry sales over year-counter variable, divided by mean industry sales (Dess and Beard, 1984).
Munificence	Regression coefficient, obtained from regressing total industry sales over year-counter variable, divided by mean industry sales (Dess and Beard, 1984).

^aUsing each of these three elements separately did not change the significance of the results.

^bWhen inside directors' stock ownership and CEO stock ownership were used separately, similar results were obtained, with the only exception that CEO stock ownership was significant for 90% confidence interval.

Meta-analytic procedures

Meta-analysis is a technique that allows the true relationship between two variables to be estimated across separate samples. This estimate (or effect size) is a mean correlation coefficient derived from the correlation coefficients of all samples by weighting the sample size of each study. The observed zero-order coefficient provides a more accurate estimation of the population mean because various statistical artifacts are corrected and positive and negative sampling errors are eliminated (Hunter and Schmidt, 1990). In this meta-analysis, I estimated effect sizes through the correlation coefficient r , which is used primarily in meta-analyses and has the advantages of easy interpretation and small downward bias (Aguinis *et al.*, 2011; Geyskens *et al.*, 2009). A main part of any meta-analysis is the calculation of the standard errors, which allows for the examination of correlation variability and the creation of confidence intervals (Whitener, 1990). If the confidence interval for a given correlation coefficient does not include zero, it could be concluded that there is a statistically significant association between the variables under investigation. To conduct the statistical analysis, I relied on Hunter and Schmidt's (1990, 2004) psychometric analytic procedure to derive the

mean correlation scores. This method relies on a random-effects model, which is the preferred approach because it assumes that population effect sizes vary across samples and provides appropriate type I error rate (Geyskens *et al.*, 2009; Kepes *et al.*, 2012). In addition to correcting for sampling errors, Hunter and Schmidt (1990) advise addressing several artifacts, such as measurement error, dichotomization of a truly continuous variable and range restriction. Since the variables in the meta-analysis are objective and no reliability statistics are given, I followed prior research and used a reliability level of 0.8 (Dalton *et al.*, 1999).² Range restrictions were set at 1 (Lee and Madhavan, 2010). No study in the meta-analysis included a dichotomization of a truly continuous variable. Finally, I inspected the data for outliers through schematic plots and did not identify outliers to be a problem in the study.

Robustness check

There have been concerns about non-independence in meta-analyses and the impact of pooling multiple correlation coefficients from a single study (Lee and Madhavan, 2010). I handled this issue in the following manner. First, if a study reported multiple measures of the dependent and/or independent variables and thus multiple correlations, I averaged those correlations. As a robustness check, I also conducted analyses based on only one correlation coefficient and on all correlation coefficients from a single study (Geyskens *et al.*, 2009). The results remained the same. In addition, I checked whether different operationalizations of the antecedent variables produced similar results. Overall, findings were consistent with those reported here.

Finally, as an additional robustness analysis, I addressed potential publication bias (the file drawer effect). Such bias is present when the probability of a study being published is dependent on the magnitude, direction or significance of the study's results (Begg, 1994). I employed Duval and Tweedie's (2000) 'trim and fill' method. Findings indicate that publication bias is not a serious issue for the meta-analysis.

In summary, the robustness of the results is consistent with prior evidence suggesting that methodological approach and 'judgment

calls involved in the conduct of a meta-analysis have little impact on the resulting ... effect sizes' (Aguinis *et al.*, 2011 p. 5).

Results

Table 3 presents a summary of the results for the hypothesized relationships. Hypothesis 1 relates to the impact of corporate governance mechanisms on divestitures. Overall, I find weak support for it. In line with my theorizing, results show that outsider-dominated boards are positively associated with divestitures ($\rho = 0.07$, $k = 9$, $N = 3747$), and greater managerial equity leads to fewer divestitures ($\rho = -0.11$, $k = 6$, $N = 2311$). Large external shareholders and CEO duality do not have a statistically significant effect on divestitures. In Hypothesis 2, I theorized on the impact of firm strategy determinants on divestitures. Overall, this hypothesis was supported, since level of diversification ($\rho = 0.09$, $k = 19$, $N = 27,162$), firm size ($\rho = 0.33$, $k = 27$, $N = 53,008$) and prior divestitures ($\rho = 0.53$, $k = 6$, $N = 13,783$) lead to increased subsequent divestment activity. I did not find statistically significant correlation between prior acquisitions and subsequent divestitures. Hypothesis 3 discussed the role of performance determinants on divestitures. I found that prior unit performance ($\rho = -0.18$, $k = 4$, $N = 1750$) and slack resources ($\rho = -0.04$, $k = 24$, $N = 24,771$) exhibit a negative association with divestitures, which supports my theorizing. However, prior corporate performance did not affect divestitures in a statistically significant way. Finally, I find no support for Hypothesis 4, since results show no statistically significant association between environmental uncertainty/munificence and divestitures.

Variable	Supported	N	k	R	P	SD	95% CI	90% CV	
<i>Corporate governance (H1)</i>									
Outsider-dominated board	Yes	3747	9	0.05	0.07	0.00	0.03 0.10	0.07	0.07
Large external shareholders	No	6602	14	0.02	0.03	0.08	-0.02 0.08	-0.08	0.13
Managerial equity	Yes	2311	6	-0.08	-0.11	0.03	-0.15 -0.06	-0.14	-0.07
Duality	No	1252	3	-0.03	-0.04	0.00	-0.09 0.02	-0.04	-0.04

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Table 3. Meta-analytic results of the various antecedents to corporate divestitures^a										
Variable	Supported	N	k	R	P	SD	95% CI		90% CV	
<i>Firm strategy (H2)</i>										
Level of diversification	Yes	27,162	19	0.07	0.09	0.10	0.04	0.14	-0.04	0.22
Firm size	Yes	53,008	27	0.27	0.33	0.34	0.20	0.46	-0.10	0.77
Prior acquisitions	No	7126	8	0.026	0.032	0.17	-0.09	0.15	-0.19	0.25
Prior divestitures	Yes	13,783	6	0.42	0.53	0.28	0.30	0.75	0.17	0.89
<i>Performance (H3)</i>										
Prior corporate performance	No	29,633	24	0.02	0.02	0.10	-0.02	0.06	-0.11	0.15
Prior unit performance	Yes	1750	4	-0.14	-0.18	0.08	-0.27	-0.08	-0.28	-0.07
Firm slack resources	Yes	24,771	24	-0.03	-0.04	0.06	-0.07	-0.01	-0.12	0.04
<i>Industry environment (H4)</i>										
Environmental Uncertainty	No	3634	7	0.01	0.01	0.14	-0.10	0.13	-0.17	0.20
Environmental Munificence	No	13,299	7	-0.003	-0.003	0.00	-0.02	0.01	-0.003	-0.003

^aN = combined sample size; k = number of correlations; r = raw score correlation; ρ = corrected true score population correlation; SD = standard deviation of true score population correlation; CI = confidence interval; CV = credibility interval.

In addition to the hypothesized relationships, I also conducted some exploratory analyses of moderating conditions.³ In particular, I was able to identify two moderating conditions (as with the main analyses, I needed at least three studies to perform moderation analyses). The first moderating condition is period of divestitures (before and after 1990). Prior research argues that, during the 1980s, there were significant changes in the market for corporate control (Gibbs, 1993) and a strong push for refocusing (Chatterjee, Harrison and Bergh, 2003). The second moderating condition is whether the study was based on single-industry or multiple-industry data. The results are presented in Appendix Moderation analyses of the relationship between antecedents and corporate divestitures. The majority of the confidence intervals overlap, which prevents us from stating any statistically significant difference in results. I found statistically significant results for level of diversification before and

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after 1990, firm size before and after 1990, and prior corporate performance before and after 1990. Those results suggest that, before 1990, managers were more sensitive to and responded more strongly to performance shortfalls and inefficient internal arrangements by divesting. In addition, firm size had a significantly stronger association with corporate divestitures when data came from a single industry compared with multiple industries.

Discussion

In this meta-analysis I developed an integrative framework for organizing divestiture antecedents, identifying the strongest predictors of divestitures, and outlining the underlying theories behind the decision to divest. Drawing on the idea that divestitures help firms improve internal organizational inefficiencies and adapt successfully to suboptimal external environment conditions, I argued that it is necessary to focus on and examine factors facilitating or hindering divestitures in order to achieve those two objectives. As a result, I build a framework where divestitures are driven by internal factors (corporate governance determinants, firm strategy determinants and performance determinants) and external factors (industry environment determinants). In addition, the meta-analysis allowed me to answer the two research questions: 'To what extent do various antecedents that can be derived from commonly used theories drive divestitures?' and 'Which commonly used theories are best suited to explain divestment decisions?' The results indicate that divestitures are largely driven by factors residing within the firm and the corporate unit rather than the external environment. In addition, inefficient structural arrangements, weak unit performance and low availability of slack, and prior experience with divestitures appear as the main drivers of subsequent divestitures. Finally, organizational learning theory, portfolio theory and the BTOF, rather than agency theory, seem to be better suited to explain divestiture decisions.

Theoretical implications

A somewhat surprising finding, given the broad reliance on agency theory in prior research, is the fact that the theory received very weak support in the study (only one out of four relationships

followed agency theory logic). While independent boards might benefit shareholder value via encouraging divestitures, managerial ownership exacerbates the problem, and large external shareholders and lack of duality do not help. This raises the question: What do these results mean for future research on corporate governance and agency theory? I argue that scholars need to go beyond the predominant economic focus of agency theory, where firm value is seen through the lens of economic returns. Rather, I propose that agency theory examines different types of value measured by socio-emotional wealth, firm identification and preservation of firm boundaries. For example, it is an interesting avenue for future research to compare family firms and public firms. I expect that, among the former, socio-emotional wealth and maintaining the firm intact will have much greater priority compared with public firms (Gomez-Mejia *et al.*, 2007). As a result, family firms may be less likely to divest, even if corporate units underperform. Furthermore, I expect to see differences in the applicability of agency theory across different institutional regimes. In particular, countries such as the USA and UK focus more on the protection of shareholders' interests, while countries such as Germany and Japan emphasize the interests of employees (e.g. La Porta *et al.*, 2000). This may indicate that divestitures are less likely to happen in the latter institutional regimes, since divestitures would negatively affect existing employees and morale of the firm.

The results show that large external shareholders do not affect the likelihood of divesting. While this may seem surprising, it could be attributed to the way large external shareholders have been operationalized in prior research. While the majority of divestiture research has employed the classical agency theory view of homogeneity among large external shareholders, more recent research shows that different types of large external shareholders, such as dedicated or transient, exhibit different associations with firm strategic actions (Connelly *et al.*, 2010). In particular, dedicated external shareholders exhibit long-term orientation, and transient shareholders are more short-term oriented. This suggests that the former might be more tolerant and patient with underperforming firms (Koh, 2007) before encouraging the divestiture of weak corporate units. On the contrary, the latter shareholders are more interested in quick gains (Porter, 1992), which makes them less tolerant towards underperforming units.

Firm strategy determinants were the strongest drivers of divestitures. I am not surprised that structural factors, such as firm size and level of diversification, which relate to internal organizational efficiency, take priority in managerial focus of attention (Ocasio, 1997) and play a dominant role in the decision to divest. In addition, these results point at the relative efficacy and applicability of portfolio theory to divestitures and its strong predictive power.

The single strongest predictor of divestitures is prior divestitures. This finding suggests that managers are able to obtain valuable lessons from prior divestitures, encode this knowledge in organizational routines, and successfully use it in future similar strategic actions. Thus, being involved in prior divestitures enhances the confidence and skills of managers to continue with future divestitures. As result, I find strong support for organizational learning theory as an underlying theory in research on divestitures. Still, those findings do not elaborate on the potential contingencies in the relationship between prior divestiture experience and future divestment. One such contingency is the elapsed time between divestitures. Prior research on strategic decision-making, including acquisitions, finds evidence that the best way for managers to learn from prior activities is by spacing those activities not too close or too far apart from each other (Aktas, de Bodt and Roll, 2013; Hayward, 2002). Translating this logic to divestiture suggests that, if the interval between divestitures is too long, it could reduce the likelihood of subsequent divestitures, because managers might forget some of the routines and practices associated with prior divestitures. Another important contingency that deserves attention in future research is the type of divestiture experience that managers have accumulated. I argue that, if managers had conducted successful divestitures in the past, they would be more confident and willing to engage in future divestitures.

The results show that prior acquisitions do not appear to predict subsequent divestitures. We envision several explanations for these results. First, acquisitions are large strategic events that are closely followed by financial experts, and their subsequent divestiture would indicate that those acquisitions were inappropriate. No manager is willing to admit such mistakes (e.g. McNamara, Moon and Bromiley, 2002). Second, acquisitions are rather different from divestitures,

which might prevent the transfer of experience and practices from the former to the latter. While acquisitions require the appropriate integration of new units, assets and employees to existing organizational routines, divestitures necessitate the appropriate disposal of current organizational assets. Third, the data allowed me to code only the number of prior acquisitions, without distinguishing between successful and unsuccessful acquisitions. It is a fruitful avenue for future research to study whether number of acquisitions interacts with acquisition performance to jointly predict corporate divestitures.

Overall, I find relative support that BTOF and performance determinants explain divestiture decisions well. In particular, poor unit performance leads to its divestiture, suggesting that managers carefully monitor and review corporate units and make appropriate decisions to divest weak units and keep well-performing ones. Interestingly, poor corporate performance exhibited no impact on divestitures. It may be that, while poor corporate performance might reflect the general financial position of the firm, it is harder for managers to identify precisely the source of corporate losses (Hayward and Shimizu, 2006) and thus blame a particular division.

Finally, industry conditions appear to have no impact on divestitures. Such a finding is not very surprising, given prior evidence that many firms are not responsive to industry prospects when making strategic decisions (Arrfelt *et al.*, 2015). A potential explanation for this result is the fact that environmental factors may be less salient cues to managers regarding divestitures (e.g. Ocasio, 1997). In other words, managers may be more attentive to and respond more strongly to internal firm factors that dominate their focus of attention. In a similar vein, managers may have greater control over internal firm factors compared with environmental conditions, which would allow them to use divestitures in response to deficiencies in those internal factors.

The overall results of my integrative framework confirmed the expectations of which categories of antecedents will be the strongest drivers of corporate divestitures. Firm strategy determinants, such as firm size, firm diversification and prior divestitures, and performance determinants, mainly prior unit performance, have the biggest impact

on the decision to divest. These are followed by corporate governance determinants, such as managerial equity and outsider-dominated boards. Those findings indicate that portfolio theory, organizational learning theory and, to a certain extent, BTOF are the major theories underlying corporate divestitures.

While it is critical to assess the magnitude of individual effect sizes between antecedents and divestitures and determine which are the strongest predictors, it is also important to evaluate the results from a comparative lens. In particular, I benchmarked the magnitude of obtained effect sizes to other meta-analyses examining strategic decision-making and/or the constructs that I used (Dalton *et al.*, 2003; Deutsch, 2005; Geyskens, Steenkamp, and Kumar, 2006; Slesman *et al.*, 2012). Overall, the correlations between my antecedent factors and corporate divestitures are similar and even larger in magnitude compared with the correlations examined in those prior meta-analyses. This indicates that those results have theoretical and practical significance, and the theories outlined could serve as a starting point to promote further theorizing (e.g. Bosco *et al.*, 2012).

Practical implications

The findings from this meta-analysis also offer some useful insight for managers and shareholders. In terms of corporate governance antecedents, stacking the boards with independent directors seems to produce results that are in line with shareholder interests and wealth maximization. However, the common argument of managerial ownership exacerbates the problem of executive self-serving behavior, and I advise reconsideration of managerial pay design especially in terms of divestiture outcomes. Moreover, conducting multiple prior divestitures could be seen as valuable managerial experience, which helps in future corporate restructuring and value enhancement – when firms undertake divestitures, they have to put in charge of this process people with the relevant prior experience. However, when managers transfer experiences between different restructuring modes, such as transferring acquisition experience to divestitures, beneficial financial outcomes are not guaranteed.

Limitations and future research opportunities

I have to point out some limitations of the meta-analysis. First, I was constrained to the availability of prior empirical studies and had to discard multiple studies that were qualitative in nature or lacked sufficient quantitative statistics to estimate effect sizes. Also, I am dependent on the quality and methodological rigor of the studies used in the meta-analysis. For example, I see certain limitations with the way large external shareholders have been measured in prior research. The aggregation of large external shareholders into a homogeneous category precludes identifying the inherent differences between various types of those shareholders and their different orientation and approach to divestitures. Such a limitation opens an avenue for future research to examine potential moderating conditions. For example, type of shareholders, various institutional regimes, types of firms (family vs public firms) and success of prior acquisitions appear to be important moderating factors that deserve future examination.

Second, while the meta-analysis included only studies where the various antecedents were measured before the divestiture event, it is still not possible to infer complete causality. Future research could address this issue by carefully controlling for third variables and relying more exclusively on cross-lagged panel designs and appropriate estimation techniques.

I posit that future studies could use additional theories to explain divestitures. One such theoretical perspective is transaction cost economics (TCE) (Williamson, 1985). Considering that TCE theorizes on boundaries of the firm, it would be interesting to examine the direct impact of TCE and factors such as asset specificity and risk preferences on managerial choices to undertake divestitures. Relatedly, I posit that the resource-based view perspective (Barney, 1991) has been underused in divestiture research. In particular, viewing corporate units through the lens of valuable, rare, inimitable and non-substitutable resources could explain why certain units are not divested despite weak profitability. Finally, upper echelon theory (Hambrick and Mason, 1984) fits well with divestitures. Since corporate decisions and strategic actions are a reflection of managerial

characteristics, it would be a fruitful avenue to study how managerial demographic characteristics, managerial dispositional traits and various types of diversity, including gender diversity, among top executives, affect decisions to divest. For example, because diversity among top executives generates conflict and reduces the ability to reach consensus (Harrison *et al.*, 2002; Pelled, 1996), I expect that divestitures are less likely to happen in firms with greater diversity among top executives.

In summary, this meta-analysis aimed to develop an integrative framework to organize divestiture antecedents, examine which of those antecedents have the strongest impact on the decision to divest, and assess which underlying theories have the highest predictive power in terms of divestitures. I hope that my study provides valuable insights and suggestions for future research on divestitures and will spur the additional interest and attention that this phenomenon deserves.

Appendix: Studies used in the meta-analysis

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Appendix: Moderation analyses of the relationship between antecedents and corporate divestitures

Variable	Supported	N	k	r	p	SD	95% CI	90% CV	
<i>Corporate governance (H1)</i>									
Large external shareholders	No	6602	14	0.02	0.03	0.08	-0.02 0.08	-0.08 0.13	
After 1990		2302	4	-0.02	-0.03	0.06	-0.10 0.04	0.10 0.05	
Before 1990		2542	6	0.03	0.04	0.11	-0.05 0.14	-0.10 0.18	
<i>Firm strategy (H2)</i>									
Level of diversification	Yes	27,162	19	0.07	0.09	0.10	0.04 0.14	-0.04 0.22	
After 1990		6684	7	0.06	0.07	0.12	-0.02 0.16	-0.09 0.23	
Before 1990		1759	7	0.25	0.32	0.15	0.19 0.44	0.12 0.51	
Multi industry		23,450	15	0.06	0.08	0.10	0.02 0.13	-0.05 0.21	
Single industry		3712	4	0.12	0.15	0.04	0.10 0.20	0.10 0.20	
Firm size	Yes	53,008	27	0.27	0.33	0.34	0.20 0.46	-0.10 0.77	
After 1990		22,570	12	0.29	0.36	0.26	0.21 0.52	0.02 0.69	
Before 1990		9674	5	0.66	0.82	0.28	0.58 1.1	0.46 1.2	
Multi industry		39,276	20	0.17	0.22	0.25	0.11 0.33	-0.10 0.53	
Single industry		13,732	7	0.54	0.67	0.34	0.42 0.92	0.23 1.1	
Prior acquisitions	No	7126	8	0.026	0.033	0.17	-0.09 0.15	-0.19 0.25	
Multi industry		1249	5	0.10	0.12	0.06	0.04 0.20	0.04 0.20	
Single industry		5877	3	0.01	0.01	0.18	-0.19 0.22	-0.22 0.24	
<i>Performance (H3)</i>									
Prior corporate performance	No	29,633	24	0.02	0.02	0.10	-0.02 0.06	-0.11 0.15	
After 1990		22,837	11	0.03	0.04	0.10	-0.02 0.10	-0.08 0.16	

Variable	Supported	N	k	r	ρ	SD	95% CI	90% CV
Before 1990		1453	4	-0.14	-0.18	0.05	-0.24 -0.11	-0.24 -0.12
Multi industry		24,267	18	0.01	0.01	0.11	-0.04 0.07	-0.13 0.15
Single industry		5366	6	0.04	0.04	0.05	-0.002 0.09	-0.02 0.10
Firm slack resources	Yes	24,771	24	-0.03	-0.04	0.06	-0.07 -0.01	-0.12 0.04
After 1990		17,859	9	-0.03	-0.04	0.05	-0.07 -0.01	-0.10 0.02
Before 1990		1759	7	-0.01	-0.02	0.14	-0.13 0.10	-0.20 0.16
Multi industry		20,155	18	-0.03	-0.04	0.05	-0.07 -0.05	-0.10 0.02
Single industry		4616	6	-0.04	-0.06	0.10	-0.14 0.03	-0.19 0.08

^aN = combined sample size; k = number of correlations; r = raw score correlation; ρ = corrected true score population correlation; SD = standard deviation of true score population correlation; CI = confidence interval; CV = credibility interval.

¹Unpublished studies are excluded, since they have not been vetted in the review process. As a result, there is a higher level of uncertainty about the quality in terms of methodological rigor and reliability of empirical findings with unpublished studies compared with published studies.

²Additional analyses were conducted using 0.7 and 1.0 reliability estimates, and there were no significant differences in results. Thus, only results with 0.8 reliability levels are reported. Supplementary results are available from the author on request.

³The author would like to thank an anonymous reviewer for this suggestion.

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Biography

- Kalin Kolev is an Assistant Professor of Management at Marquette University. His research focuses on strategic decision-making and risk-taking under uncertainty. In particular, Kalin examines the antecedents and consequences of major restructuring activities, such as mergers and acquisitions, diversification and divestitures. Furthermore, Dr Kolev studies how the complex relationships between firm executives and boards of directors shape executive compensation, the risk profile of the firm and organizational performance.