Does A Target's Corporate Scope Decisions Influence Acquisition Performance? *

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In this study, we investigate how the performance of an acquisition is influenced by the acquisitions and divestitures previously conducted by the target firm. By combining insights from the corporate strategy literature and organizational structure research, we propose that the efficiency of an acquisition's post-merger integration phase is negatively affected by the target's levels of structural fragmentation, which, in turn, are increased by acquisitions and reduced by divestitures. Based on this perspective, we hypothesize that the performance of an acquisition worsens as the size of assets acquired by the target prior to the acquisition increases, particularly if those assets are unrelated to the target's core business. Conversely, we suggest that the performance of an acquisition improves when the target has divested assets, especially if they are unrelated to its core business. To support our viewpoint, we analyzed data from a sample of acquisitions announced between 1985 and 2019 among U.S. public firms. The results strongly support our claims, making a significant contribution to the corporate strategy literature, expanding research on organizational structure, and providing valuable managerial insights about how to maximize acquisition performance.

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INTRODUCTION

Corporate strategy scholars have traditionally claimed that firms tend to undertake corporate acquisitions to achieve synergistic gains (e.g., Chatterjee, 1986; Chen, Kaul, & Wu, 2019; Feldman & Hernandez, 2021; Karim & Kaul, 2015; Larsson & Finkelstein, 1999). However, they usually concede that whether expected gains are realized is driven by how and how well the resources of the target and the resources of the acquirer are reconfigured during the post-merger integration (PMI) phase[1] (Karim & Kaul, 2015; Karim & Mitchell, 2000; Larsson & Finkelstein, 1999). To better understand acquisition performance, researchers have thus examined the factors that influence PMI efficiency (see Graebner et al., 2017, for a review). Interestingly, they have focused either on the characteristics of the resources and capabilities of the firms involved (e.g., acquirer acquisition experience, acquirer-target resource relatedness, target resource fungibility, etc.) or on factors influencing the nature and quality of their post-acquisition interactions (e.g., cultural distance, geographic proximity, relative size, deal hostility, etc.). However, a series of studies conducted by Samina Karim and her colleagues have highlighted a crucial insight—that a firm's structure is significantly influenced by its past acquisitions and divestitures (Karim, 2006, 2009; Karim & Mitchell, 2000; Karim & Williams, 2012; Karim & Kaul, 2015; Karim & Capron, 2016). This suggests that the way a target company has constructed its resource base through previous corporate scope decisions may also play a pivotal role in the acquirer's ability to efficiently reconfigure the target's resources during the PMI phase, ultimately shaping the overall performance of the acquisition. We examine this question in the present study.

Specifically, we examine *how the acquisitions and divestitures previously undertaken by a target firm influence the performance of an acquisition*. We introduce the concept of structural fragmentation, which refers to the degree to which a firm's organizational entities exhibit

[1] Following Bodner and Capron (2018: 2), we define post-merger integration as "the process that unfolds in the aftermath of the deal closure to reconfigure merging firms by redeploying, adding, or divesting resources, lines of products or entire businesses, in order to achieve the expected combination benefits."

heterogeneous structures. Whereas the closely related concept of intrafirm unrelatedness (i.e., the level of diversification) is limited to the absence of operational interdependencies between a firm's organizational entities regarding inputs, production processes, or outputs (Zhou, 2011), structural fragmentation is a broader concept. It encompasses variations in how business operations are conducted across different business units, even when they are related. Such variations extend to include distinct identities, cultural norms, decision-making processes, operating standards, and other rules and systems across entities (Raveendran, 2020). To illustrate, let us consider the organizational structure of Daimler's commercial division in the years leading up to its merger with Chrysler in 1998. This division comprised two primary units: Trucks Europe and Trucks NAFTA, with the latter arising from the amalgamation of Ford Motors' Sterling division with Freightliner assets. Despite their closely related operations, both units followed distinct approaches to conducting business. For example, in Europe, they sourced engines internally from a Power Train unit, while in the United States, they procured engines from external suppliers, most notably Cummins Engines and Detroit Diesel. Furthermore, cultural norms, brand identity, and product design differed significantly across the Atlantic and even within the U.S. (Hannan, Podolny, & Roberts, 2001). We expect these differences to result in high levels of structural fragmentation.

Drawing on this definition, we first propose that an acquirer can more effectively undertake the PMI phase when the target firm involves lower levels of structural fragmentation. Second, we suggest that a firm's level of structural fragmentation is influenced by its history of acquisitions and divestitures, increasing with the former and decreasing with the latter. In addition to the impact of acquisitions and divestitures on a firm's number of organizational units, acquisitions often introduce distinct operational approaches, while divestitures provide opportunities for firms to streamline how they manage operations within their remaining businesses. Building on these overarching ideas, we hypothesize that acquisition performance decreases with the size of the assets acquired by the target before the acquisition (especially

when they are unrelated) and increases with the size of the target's divested assets (especially when they are unrelated).

We test our view using data on a sample of acquisitions announced in the period 1985–2019 between U.S. public firms. Using the acquirer's cumulative abnormal returns (CAR) at the acquisition announcement date as a measure of acquisition performance, we observe a decline in performance as the size of the assets acquired by the target in the three years prior to the acquisition increased. Conversely, we note an improvement in performance as the size of the assets divested by the target in the three years preceding the acquisition grew. These effects are particularly strong when the target's acquired and divested assets are outside of its core business (i.e., they are unrelated).

In complementary analyses, we also find that the recency of the target's corporate strategy decisions matters (Vermeulen & Barkema, 2002; Zorn, Sexton, Bhussar, & Lamont, 2019): only acquisitions and divestitures undertaken by the target in the few years before the focal acquisition affect the acquisition performance, while older acquisitions and divestitures do not have any significant impact. This supplementary result implies that firms can gradually diminish the degree of structural fragmentation resulting from acquisitions by progressively aligning cultural norms, decision-making processes, and operational standards. It also highlights that the streamlining and revitalization impact of divestitures on extant operational approaches fades after a few years. We also find that the target's acquisitions and divestitures affect the acquirer's returns by changing the synergistic value created by the acquisition rather than affecting the price paid to acquire the target.

We contribute to corporate strategy research in two main ways. First, we make a significant contribution to the literature on corporate acquisitions. We show that the performance of an acquisition is significantly affected by the corporate scope decisions made by the target firm prior to its acquisition. This is a crucial addition to the literature on acquisition performance, as it has traditionally focused on explaining the efficiency of the PMI stage solely through the resource characteristics of the acquiring and target firms. Thus, the acquisition literature has

neglected to consider the ways in which the target firm initially developed its resource base. First, we show that the performance of an acquisition is decreased by the size of the target's acquired assets. We thus suggest that acquiring a firm that itself grew via acquisitions poses extra challenges in the PMI phase, which harms the acquisition's performance. Second, we highlight that firms that have divested assets before being acquired are likely to have resource bases that are easier to reconfigure in the PMI phase, resulting in higher acquisition performance. Overall, we provide insights into how a target's corporate scope history influences the performance of acquisitions, highlighting the negative impact of prior acquisitions and the positive impact of prior divestitures.

We also make a theoretical contribution by extending the research on organizational structure (e.g., Karim & Capron, 2016). We introduce the concept of structural fragmentation, which we suggest is influenced by a firm's history of acquisitions and divestitures. Our study reveals that acquisitions tend to increase structural fragmentation, as they bring in new organizational units with distinct identities, cultural norms, and operating processes. This increased structural fragmentation can pose extra challenges during the PMI phase when the firm itself becomes the target of an acquisition. Conversely, divestitures tend to decrease structural fragmentation by providing firms with opportunities to streamline their approaches to business. By shedding units, the firm can simplify its structure, have more homogeneous cultural norms and operating standards, and use newly freed non-scale-free slack resources to revitalize its operations. This, in turn, facilitates the PMI process when the firm is subsequently acquired. Overall, we highlight the important role that acquisitions and divestitures play in shaping a firm's organizational structure and the potential consequences for future corporate scope decisions.

BACKGROUND

Recent corporate strategy research has delved into the impact of a firm's organizational structure on its decision-making processes. Numerous studies have thus highlighted the significance of strong operational interdependencies within the organizational structure, resulting

from the ownership of related operations, on the firm's diversification endeavors. For example, Rawley (2010) demonstrates how interunit coordination limits a firm's scope by introducing coordination costs that impede effective collaboration among its units, thus hindering diversification potential. Moreover, Zhou (2011) reveals that the costs associated with coordinating activities among different units can counteract the expected synergistic benefits of related diversification. Consequently, firms are less inclined to explore new business ventures, even if they are related, when existing business lines exhibit high interdependence.

This line of research underscores the notion that operational interdependencies, such as those related to inputs, production processes, and outputs, generate significant coordination costs that impede a firm's expansion efforts. It complements an earlier body of literature that highlights the existence of coordination costs stemming from different approaches to conducting operations within a firm's units, irrespective of the level of relatedness. Notably, several studies have shown that differences in cultural norms between a firm's units can be a significant source of coordination costs (Reus & Lamont, 2009; Graebner et al., 2017). These costs can potentially undermine or entirely negate the synergistic benefits that the units may produce (Chatterjee et al., 1992; Larsson & Finkelstein, 1999; Weber & Camerer, 2003).

In this context, we introduce the concept of "structural fragmentation," which refers to a situation within an organization where its overall structure demonstrates varied approaches to conducting operations across units, even when those units engage in related activities. In a structurally fragmented organization, individual organizational units display distinct methods of operation due to unique identities, cultural norms, decision-making processes, or operating standards among different entities. Consequently, structural fragmentation can lead to isolated decision-making, limited sharing of best practices, increased coordination costs, intrafirm frictions, and duplicated efforts, all of which reduce overall organizational effectiveness. Sanofi, the French pharmaceutical firm, serves as a prominent illustration of a firm with high structural fragmentation. The firm frequently faces criticism for managing a convoluted network of loosely interconnected R&D entities spread across the world, each characterized by its unique culture

and organizational structure. Consequently, this approach has resulted in inefficient duplications, restricted synergies, and an overall absence of substantial scale. The excessive degree of structural fragmentation presented significant challenges for Sanofi during the development of a COVID-19 vaccine, highlighting the complications arising from having R&D laboratories dispersed globally. Some experts even argue that Sanofi's attractiveness as a potential corporate acquisition has diminished due to the intricate nature of integrating its assets into another company's portfolio.

While the term "structural fragmentation" may not have been explicitly used in research, its underlying concept has been implicitly addressed. Particularly, research has shed light on acquisitions as a significant driver of structural fragmentation (Puranam, Singh, & Chaudhuri, 2009), as acquired targets are often integrated slowly or incompletely (for a review, see Graebner et al., 2017). Some studies have examined the organizational outcomes associated with structural fragmentation resulting from acquisitions. For example, Karim (2006) demonstrated that, compared to internally developed units, acquired units tend to increase the firm's levels of structural fragmentation; they are thus more likely to undergo mergers with other units or dissolution at a greater extent and sooner. Similarly, Barkema and Schijven (2008) argued that as a firm's acquisition sequence expands, it becomes increasingly susceptible to integration and coordination challenges while facing increased levels of structural fragmentation. Therefore, firms tend to complement their acquisitions with restructuring efforts, often involving the recombination of units. Puranam et al. (2009) introduced the concept of structural integration, which involves consolidating formerly separate organizational units into a single entity after an acquisition. Interestingly, they showed that while structural integration can alleviate structural fragmentation, it can lead to major disruptive consequences for the target and may even undermine the intended benefits the acquirer had hoped to gain from the acquisition. The authors noted that these negative outcomes of structural integration can be avoided when there is substantial common ground between the personnel of the acquiring and target firms at the time of the acquisition. In such cases, effective coordination can be achieved without the need for

complete structural integration. Along the same line of reasoning, Karim and Kaul (2015) found that recombining business units within a firm can create new synergies of knowledge within the organization. However, they also noted that this restructuring process may disrupt the firm's existing knowledge resources, potentially limiting the advantages gained from such a change.

Although this body of research offers insights into the drivers and outcomes of structural fragmentation, particularly in relation to structural integration following acquisitions, it lacks a thorough understanding of the impact of structural fragmentation on acquisition performance when the structurally fragmented firm itself becomes the target of an acquisition. We aim to address this research gap by examining the extent to which acquisition performance is influenced by the levels of structural fragmentation arising from the target firm's previous acquisitions and divestitures. To our knowledge, existing research has overlooked this issue.

A few researchers have used different theoretical perspectives to examine how acquisition performance is influenced by the prior corporate scope decisions of target firms. In the finance literature, Phalippou, Xu, and Zhao (2015) showed that financial markets typically respond negatively to announcements of acquisitions of firms known for their frequent acquisitions. They attributed this response to the notion that such acquisitions of serial acquirers often lack strategic motivations rooted in synergistic advantages. Instead, they often occur when a firm purchases a target entity preemptively to ward off potential acquisition by that very target. Drawing on organizational learning theory, Cuypers, Cuypers, and Martin (2017) examined differences in prior acquisition experience between targets and acquirers and found that targets with more experience than the acquirers can appropriate more value from M&As due to better negotiation skills. Zorn et al. (2019) used a managerial attention view and examined the impact of prior acquisitions of targets on the acquirer's overall performance, measured by Tobin's q. They emphasized the managerial capacity of the acquirer, highlighting that the target's prior acquisitions increase the demands placed on the acquirer's managers. They showed that retaining top management team members in the target strengthens the available managerial capacity. Notably, researchers have not addressed how the structural fragmentation resulting from the

target's prior acquisitions influences acquisition performance. Furthermore, they have not discussed the impact of divestitures previously undertaken by target firms on acquisition performance, even though divestitures are likely to have a major *negative* impact on structural fragmentation.

It is noteworthy that some scholars have examined firms' decisions to divest after acquisitions, specifically examining divestitures of newly acquired businesses (e.g., Shimizu & Hitt, 2005; Bergh, 1997) or post-acquisition resource redeployment through divestitures (e.g., Capron, Mitchell, & Swaminathan, 2001). Conversely, Bennett and Feldman (2017) proposed that firms that have undergone divestitures often subsequently engage in acquisitions, benefiting from newfound financial resources and managerial capacity. Overall, researchers have investigated acquisitions made by firms with a history of divestitures or vice versa. However, our understanding of acquisitions of target firms that have previously divested assets remains limited.

In conclusion, while corporate strategy scholars have provided insights into the drivers and outcomes of several sequences of corporate scope decisions, they have neglected to examine how the target's structural fragmentation resulting from prior acquisitions and divestitures influences acquisition performance. Addressing this question is crucial for two main reasons. First, gaining insights into how the target's structural fragmentation influences acquisition performance will shed new light on the challenges associated with the post-merger integration phase. Second, a better understanding of how a firm's history of acquisitions and divestitures influences structural fragmentation will help us understand how a firm's corporate scope decisions define its structure.

HYPOTHESIS DEVELOPMENT

Structural Fragmentation and Acquisition Performance

Corporate strategy researchers have found that firms frequently engage in acquisitions to obtain new resources, which are either similar or complementary to the resources they use in their existing operations (e.g., Larsson & Finkelstein, 1999). However, achieving a successful

acquisition necessitates the effective integration of the target firm into the acquirer's operations (Bodner & Capron, 2018; Graebner et al., 2017). In this study, our overarching argument is that the presence of structural fragmentation within the target firm significantly hampers the efficiency of the PMI phase, ultimately decreasing acquisition performance.

As mentioned above, structural fragmentation within a firm refers to the degree to which its organizational units have their own unique approaches to conducting business, even if these units operate in related domains, due to distinct cultural norms and operational approaches. In essence, we claim that when an acquiring firm aims to integrate a structurally fragmented target, several specific challenges may arise, potentially causing delays, cost overruns, and decreased acquisition performance.

One significant challenge in integrating a target with high levels of structural fragmentation is the presence of different supply chains, production processes, or distribution channels within each unit, even when they operate in related domains. The acquirer must evaluate each stage of production for each unit, adding complexity to the integration phase. Additionally, if a target has high levels of structural fragmentation, some of its support functions, such as finance, human resources, or information technology, may be duplicated across different units or based on different processes and systems, making it difficult to consolidate these functions and achieve economies of scale. This means that the acquirer must identify and eliminate redundant functions before integration can proceed smoothly. The potential for cultural differences among different units is another significant challenge in integrating a fragmented target. These cultural differences can result in disagreements and communication inefficiencies among units. These issues are likely to escalate when the acquirer attempts to integrate the target's operations with its own.

Overall, we claim that the level of structural fragmentation within a target firm can significantly impede the efficiency of the PMI phase, due to heterogeneous ways of running operations, duplicated functions, and cultural differences. We thus expect a negative relationship between an acquisition's performance and the level of structural fragmentation of the target.

How the Target's Prior Acquisitions Influence Acquisition Performance

We next examine how the corporate scope decisions of a target firm influence its levels of structural fragmentation. Specifically, we now contend that firms that have grown substantially through acquisitions are likely to exhibit a high degree of structural fragmentation. Our intuition is the following.

First, firms often resort to acquisitions to acquire resources that they cannot develop internally (Capron & Mitchell, 2012). However, during the PMI phase, integrating the operations of the target firm with those of the acquiring firm can be challenging. This is particularly true if the target firm has unique resources that cannot be fully integrated without losing their value (Zaheer, Castañer, & Souder, 2013; Puranam et al., 2009). In such cases, acquisition targets are often partially integrated, eventually creating structural fragmentation. This phenomenon does not naturally occur in internal growth, where firms expand using their own resources (Moatti, Ren, Anand, & Dussauge, 2015). Second, the PMI phase of acquisitions requires more managerial capacity than internal growth (Zorn et al., 2019). However, when a firm undergoes rapid growth through acquisitions, it may not have sufficient managerial capacity to effectively integrate the acquired assets. As a result, the firm may end up with a portfolio of loosely integrated businesses that operate quasi-independently, leading to higher levels of structural fragmentation. Lastly, some researchers propose that frequent acquirers, also known as serial acquirers, may become overly confident in their ability to extract value from acquisitions (Haleblian & Finkelstein, 1999; Hayward, 2002). This overconfidence may lead such firms to believe that superficial integration is sufficient to achieve the anticipated synergistic gains (e.g., Zollo, 2009), resulting in a highly fragmented firm comprising multiple poorly integrated units that maintain their own distinct processes.

An illustrative case of how acquisitions can affect structural fragmentation is evident in the expansion of the Dutch food retailer Ahold within the United States during the 1980s and 1990s. Through a series of acquisitions, including Finast in 1988, Tops Markets in 1991, Red Food Stores in 1994, Mayfair and Melmarkets in 1995, Stop & Shop in 1996, and Giant-

Landover Food in 1998, Ahold became a dominant force in the U.S. East Coast, emerging as one of the nation's largest food retailers by the year 2000. However, Ahold chose to preserve the acquired entities' operational processes, including brand identities, pricing strategies, procurement methods, and loyalty-type programs (*Supermarket News,* 1996). This strategic decision gave rise to what many observers described as a constellation of independent banners, marked by duplicated distribution centers, incompatible management information systems, distinct cultures and identities, and limited synergistic benefits (De Jong et al., 2007). Consequently, the structural fragmentation resulting from these acquisitions would have presented a formidable challenge to any other retailer considering the acquisition of Ahold.

In summary, our argument suggests that, relative to firms that expand internally, firms that grow through acquisitions tend to have higher levels of structural fragmentation. This creates additional challenges when the firm itself is acquired, ultimately negatively affecting acquisition performance. Specifically, challenges associated with such fragmentation are likely to arise during the PMI phase, making the integration process significantly more difficult to execute effectively. Hence, our first hypothesis:

> *Hypothesis 1a. The more assets the target has acquired, the lower the acquisition performance.*

How the Target's Prior Divestitures Influence Acquisition Performance

We next develop the argument that firms that have engaged in divestitures tend to have low levels of structural fragmentation. As a result, they tend to be easier to reconfigure in the PMI phase when being themselves acquired, resulting in higher acquisition performance. For instance, numerous analysts suggest that the pharmaceutical company GSK has potentially opened itself up to acquisition opportunities after streamlining its intricate corporate structure through the spinoff of its consumer health division, Haleon (Evans & Kuchler, 2021). To justify this reorganization, GSK chief executive Emma Walmsley said: "There's a Gordian knot of GSK, in terms of balance sheet structure, funding for the future and [we can use] the separation

as a great catalyst for setting up a new chapter for GSK" (Kuchler, 2022). This strategic separation has also afforded the company the ability to concentrate its efforts on its core pharmaceuticals and vaccines businesses (Kuchler, 2022). In contrast to the healthcare sector, these areas involve long timeframes and require substantial, sustained investments in long-term R&D (*Financial Times,* 2023).

Several reasons may explain why divestitures reduce structural fragmentation. First, divestitures help firms reduce their size, which logically reduces coordination needs and the demand for information processing (Zhou, 2011). Consequently, firms undergoing divestitures can achieve a more straightforward organizational structure, simplifying the PMI phase when they are subsequently acquired. Smaller operations make the PMI phase less complex and more manageable, ultimately leading to improved acquisition performance.

Moreover, the process of separating from certain organizational assets, as implied by divestitures, often prompts firms to reevaluate how they manage their remaining operations, which may be burdened by business-specific inertial forces and path dependencies. Along the same line of reasoning, Vidal (2021) emphasized that divestitures create slack in non-scale-free resources, such as managerial capacity and financial resources, which can be wisely reinvested to streamline operations across remaining activities. As exemplified in the GSK case mentioned above, divestitures thus provide firms with the opportunity to revitalize and homogenize their operational processes (Feldman & McGrath, 2016; Brauer, 2006), despite the short-term disruptions commonly observed (Feldman, 2014). Such streamlining efforts have significant implications for the PMI phase when the firm is subsequently acquired. With more consistent operating processes across the organization, the acquiring firm can more easily integrate the acquired firm into its existing operations, leveraging the similar processes established through previous divestitures. Consequently, this enhances acquisition performance.

Furthermore, apart from simplifying organizational structures and streamlining operating processes in remaining activities, divestitures also play a role in shaping a more homogeneous organizational culture. When a firm divests assets, it focuses its operations on a narrower set of

activities. This focused approach helps foster a more unified and aligned set of cultural norms and values throughout the organization. By having a shared organizational culture, firms are better equipped to navigate the integration process when they themselves are acquired. The alignment of cultural norms reduces the potential for clashes and conflicts that may arise during the integration of different organizational cultures. This smoother cultural integration enhances the overall effectiveness of the PMI process.

In conclusion, we claim that firms that engage in divestitures tend to have lower levels of structural fragmentation than other firms. This is due to a simplified structure, streamlined approaches to conducting business across remaining operations, and more homogeneous cultures. Consequently, these factors, by facilitating the PMI phase, should lead to higher acquisition performance when the divesting firms themselves undergo acquisition. Hence, the following hypothesis:

> *Hypothesis 1b. The more assets the target has divested, the higher the acquisition performance.*

Acquisition and Divestiture Relatedness and Acquisition Performance

We next examine the extent to which the levels of relatedness of the target's acquisitions and divestitures influence the focal acquisition's performance. Let us first consider the difference between related acquisitions and unrelated acquisitions.

We mentioned above that a firm that frequently acquires other firms can struggle to integrate them, leading to more structural fragmentation compared to growing independently. We now argue that levels of structural fragmentation are further exacerbated when firms prioritize unrelated acquisitions over related acquisitions. In unrelated acquisitions, the targets being integrated are likely to have distinct operational standards for procurement, production, and distribution, thereby complicating the integration process. Additionally, unrelated firms often have different cultures and identities, which can lead to misunderstandings and communication difficulties, making the integration particularly challenging. Lastly, some

researchers indicate that acquisition experience may lead decision-makers to become overly confident regarding anticipated synergies and their own integration capabilities (Haleblian & Finkelstein, 1999; Hayward, 2002; Zollo, 2009). These erroneous beliefs tend to result in aggravated problems when firms engage in unrelated acquisitions, where synergies are already difficult to identify and the integration process is inherently complex. Specifically, firms may rely on superficial integration efforts, assuming that synergistic gains between unrelated activities will naturally occur. Ultimately, unrelated acquisitions will result in higher levels of structural fragmentation than related acquisitions. Once more, the Dutch food retailer Ahold's expansion in the United States provides a compelling illustration of how unrelated acquisitions can lead to a company's structural fragmentation. In the early 2000s, Ahold embarked on a series of significant unrelated acquisitions in the food services industry, such as US Food Service and PYA/Monarch in 2000, and Alliant Exchange in 2001. The substantial gap between the food retailing industry, which is essentially a B-to-C business, and the food services industry, primarily a B-to-B business, rendered the structural integration of these businesses unfeasible. This undoubtedly played a role in the company's heightened structural fragmentation (De Jong et al., 2007). Furthermore, Ahold's structural fragmentation was exacerbated when it acquired a multitude of firms operating in various unrelated sectors, including garden retailing and restaurants.

As discussed earlier, higher levels of structural fragmentation negatively affect acquisition performance as they complicate the PMI stage. Therefore, we expect a stronger negative relationship between acquisition performance and the size of the target's unrelated acquired assets compared to the size of the target's related acquired assets.

Hypothesis 2a. The negative impact of unrelated acquisitions on acquisition performance is greater than that of related acquisitions.

Let us now consider the impact of related and unrelated divestitures on structural fragmentation and acquisition performance. In essence, we claim that unrelated divestitures can contribute to a greater reduction in structural fragmentation compared to related divestitures. The

positive impact of unrelated divestitures on acquisition performance is thus greater than that of related divestitures.

When a firm opts for unrelated divestitures, it effectively eliminates organizational units that exhibit distinct operational processes. Furthermore, as these units operate within unrelated domains, they tend to adhere to distinct cultural norms. For instance, the perceptions of employees and other stakeholders are likely to diverge among unrelated businesses. Likewise, top management styles, as well as reward and evaluation systems, may exhibit variations across unrelated businesses. As a result, unrelated divestitures allow the firm to streamline its operations and foster a more uniform organizational identity. In essence, these divestitures aid the firm in simplifying its structure by reducing the complexities associated with disparate units. In contrast, related divestitures may have a more limited impact on reducing structural fragmentation. The divested assets, being closely aligned with the firm's core activities, are likely to have similar operational processes and cultural norms. Therefore, shedding related assets should have a more limited impact on the firm's structural fragmentation.

The greater reduction in structural fragmentation achieved through unrelated divestitures has positive implications for acquisition performance. We mentioned above that lower structural fragmentation increases acquisition performance. It follows that the positive impact of unrelated divestitures on acquisition performance should be greater compared to related divestitures. The reduction in structural fragmentation resulting from unrelated divestitures provides a more favorable environment for successful integration and synergy realization, ultimately leading to improved acquisition performance. Hence, the following hypothesis:

> *Hypothesis 2b. The positive impact of unrelated divestitures on acquisition performance is greater than that of related divestitures.*

METHODOLOGY

Data and Sample

The dataset used for this study is from the Securities Data Corporation (SDC) database. The sample includes M&A deals between public firms in the United States announced in the

period 1985–2019. The sample includes both completed and non-completed deals but excludes minority-stake acquisitions. As is common in the literature (e.g., Uysal, Kedia, & Panchapagesan, 2008; Savor & Lu, 2009; Cai & Sevilir, 2012), we eliminated small and economically insignificant deals in SDC. We thus included only transactions where the deal value is at least 10 million in 2019 USD and at least 1 percent of the capitalization of the acquirer 50 trading days before the announcement. For targets that received multiple competing bids, we considered the first bid only. Accounting data are from Compustat, and stock market data are from CRSP.

Variables

Acquisition performance. Following the common approach in the literature (e.g., Haleblian, Devers, McNamara, Carpenter, & Davison, 2009), we measured acquisition performance (our dependent variable) with the percentage CAR on the acquirer's stock at the time of the acquisition announcement. Building upon extensive research, we operated under the assumption that the market efficiently incorporates and reflects information in stock prices. Consequently, the market tends to penalize acquisitions that are expected to undergo a complex and challenging PMI phase (Chatterjee et al., 1992; Zaheer, Hernandez, & Banerjee, 2010; Graebner et al., 2017).

We computed CAR using the event study method described in Brown and Warner (1985). To determine the market return, we used the CRSP value-weighted index and estimated the market model parameters over a period of 250 trading days, ending 42 trading days before the deal announcement. We required at least 100 days with nonmissing returns during the model estimation period. In the main analysis, we computed CAR over a five-day window starting two trading days before the acquisition announcement and ending two trading days after (window [–2,+2]). We excluded cases in which an acquirer announced more than one acquisition over the event window to avoid confounding events.

Target acquisitions. The key independent variable for Hypothesis 1a (labeled *target acquisitions*) is defined as the sum of the values of the acquisitions announced by the target in

the three years before the focal acquisition announcement divided by the value of the focal acquisition, excluding deals canceled before the announcement of the focal acquisition. We considered the target's domestic (within the US) and cross-border (outside the US) acquisitions of public and private firms, subsidiaries, and assets. However, we excluded minority-stake acquisitions. Hypothesis 2a suggests that unrelated target acquisitions have a more negative impact on the focal acquisition's performance than related target acquisitions. Thus, we used the same formula described above to create two variables that consider (1) the target's acquisitions of firms or assets that have the same primary four-digit standard industrial classification (SIC) code (labeled *target acquisitions (related)*) and (2) only the target's acquisitions of firms or assets with a different primary four-digit SIC code (labeled *target acquisitions (unrelated)*).

Target divestitures. We claimed in Hypothesis 1b that target divestitures increase acquisition performance. We thus built an independent variable (labeled *target divestitures*) that records the sum of the values of the divestitures announced by the target in the three years before the focal acquisition announcement, divided by the value of the focal acquisition, excluding deals canceled before the announcement of the focal acquisition. We considered divestitures of assets or subsidiaries based in the United States and abroad. As with acquisitions, to test Hypothesis 2b about the impact of related versus unrelated divestitures, we created two variables that capture (1) only the target's divestitures of assets or subsidiaries that have its same primary four-digit SIC code (labeled *target divestitures (related)*) and (2) only the target's divestitures of assets or subsidiaries with a different primary four-digit SIC code (labeled *target divestitures (unrelated)*).

Control variables. We controlled for several characteristics of the focal deal that may affect acquisition performance. We controlled for product-market relatedness between the focal acquirer and target, which can affect their level of information asymmetry and synergies (e.g., Chatterjee, 1986; Coff, 1999; Haleblian et al., 2009). Following Bloom, Schankerman, and Van Reenen (2013), product-market proximity is measured by the similarity in the merging firms'

distribution of sales across four-digit SIC codes. For acquirer *i* and target *j*, we define *market proximity* as:

$$\frac{M_i' M_j}{(M_i' M_i)^{\frac{1}{2}} \left(M_j' M_j\right)^{\frac{1}{2}}},$$

where *M* is the vector representing the distribution of a firm's cumulative sales across four-digit SIC codes during the five years preceding the acquisition announcement year. Specifically, the *s*-th element of vector *M* represents the fraction of the firm's cumulative sales in SIC code *s*. This index varies between one (if the two firms have exactly the same distribution of sales across SIC codes) and zero (if they have no overlap). Sales data are from Compustat Segments.

We also controlled for the geographical proximity between the merging firms, which could affect the acquirer's adverse selection risk and the synergies of the acquisition (e.g., Uysal et al., 2008; Chakrabarti & Mitchell, 2013, 2016). We included a dummy (*geographical proximity*) that equals one if the acquirer and the target are within 100 miles of each other, where distance is computed as a straight-line distance between their headquarters' zip codes. Zip codes' coordinates are from US Census Gazetteer Files. A partial ownership position in the target can affect the intensity of competition in the bidding process and therefore the acquisition price (Betton, Eckbo, & Thorburn, 2009; Schijven & Hitt, 2012). Hence, we included a dummy (*toehold*) that equals one if the acquirer held a stake in the target before the announcement. Stock payments can affect the acquirer's stock market reactions by signaling to investors that the acquirer's stock is overvalued or that the acquirer considers the transaction as risky (e.g., Hansen, 1987; Coff, 1999). Hence, we controlled for the percentage of stock included in the payment (*% of stock*). Targets in knowledge-intensive sectors can be more informationally opaque since their value depends more on intangible assets and therefore the acquirer may face a greater adverse selection risk (Coff, 1999; Capron & Shen, 2007). Hence, we included a dummy (*high-tech target*) that equals one if the target's primary four-digit SIC code is a high-tech sector, as defined by the American Electronics Association (Walcott, 2000). We also controlled for the financial characteristics of the acquirer and the target before the announcement. *Log(assets)* is

the logarithm of total assets. *ROA* (return on assets) is net income divided by total assets. *M/B* (market-to-book ratio) is the market value of assets divided by the book value of assets, computed as in Kaplan and Zingales (1997). *R&D* is the ratio of R&D expenses to total assets. *Cash* is the ratio of cash and equivalents to total assets. *Leverage* is the ratio of total liabilities to total assets.

Econometric Model

We tested our hypotheses with linear regressions using the acquirer's CAR as the dependent variable and the target's acquisition and divestiture variables as the key independent variables. To control for idiosyncratic effects of periods and industries, we ran the regressions with fixed effects for the announcement year, the acquirer's industry, and the target's industry, where industries are defined by the firms' primary two-digit SIC code. To avoid capturing effects driven by outliers, we winsorized at the 1st and 99th percentiles the acquirer's CAR, the target's acquisitions and divestitures variables, and all financial ratios used as controls (*ROA*, *M/B*, *R&D*, *cash*, and *leverage*).[2] Since the errors of the model for firms in the same industry may not be independent, the model is estimated by two-way-clustering standard errors, by the acquirer's industry and the target's industry (two-digit SIC code) (Cameron, Gelbach, & Miller, 2011).

Our empirical strategy for identifying the impact of the target's acquisitions and divestitures on the performance of the focal acquisition relies on the assumption that we are effectively controlling for the main drivers of the acquirer's CAR, which may be correlated with the target's propensity to acquire or divest (e.g., the target's profitability or financial constraints). Our identification strategy could fail if targets that engage in acquisitions or divestitures to a greater extent differ from other targets due to unobservable factors that could affect the acquirer's CAR. It is important to note that using a matching procedure to compare targets with

[2] For consistency, the other dependent variables and the target's acquisitions and divestitures variables introduced in supplementary and robustness tests in the Results section (see Tables 3 and 4) are also winsorized at the 1st and 99th percentiles.

similar observable characteristics would not resolve this problem, as differences arising from unobservable factors could still affect the results (for a discussion of the similarity between identification strategies based on regressions and matching procedures, see Angrist (1998: 255)). To assess the extent to which our results might be driven by the unobservable idiosyncrasies of targets that engage in acquisitions and divestitures, we conducted a supplementary regression using the target's *canceled* acquisitions as placebo treatments. We present and discuss this test in detail after the main results.

RESULTS

Table 1 reports the descriptive statistics and the correlation matrix of our variables. Targets, on average, acquired assets worth about 10 percent of their value in the three years preceding the focal announcement (S.D. = 24 percentage points), including about 4 percent on related acquisitions and 6 percent on unrelated acquisitions. Targets, on average, divested assets worth about 4 percent of their value (S.D. = 17 percentage points), including 1.4 percent on related assets and 2.4 percent on unrelated assets.

*******Insert Table 1 about here******

We report the main regression results on the acquirer's CAR in Table 2. Model (1) includes *target acquisitions* with the control variables and the fixed effects, model (2) includes *target divestitures*, model (3) includes both, and model (4) includes the variables distinguishing between related and unrelated acquisitions and related and unrelated divestitures. In line with Hypothesis 1a, models (1) and (3) show that *target acquisitions* reduces the performance of the focal acquisition (*p*-values = .047 and .032 in (1) and (3), respectively). The coefficient in model (3) indicates that for each standard-deviation increase in *target acquisitions,* the acquirer's CAR drops by 0.34 percentage points (compared with a mean CAR of –1.52%). In line with Hypothesis 1b, models (2) and (3) indicate that *target divestitures* increases the acquirer's CAR (*p*-value = .046 and .033 in (2) and (3), respectively). The coefficient in model (3) shows that for each standard-deviation increase in *target divestitures,* the acquirer's CAR increases by 0.27 percentage points.

Hypotheses 2a and 2b examine the impact of the levels of relatedness of the target's prior acquisitions and divestitures. In line with our predictions, model (4) shows that the effects of *target acquisitions* and *target divestitures* are largely driven by unrelated acquisitions and divestitures, respectively (*p*-values of *target acquisitions (related)* = .408, *target acquisitions (unrelated)* = .016, *target divestitures (related)* = .692, and *target divestitures (unrelated)* = .005). In terms of magnitude, the coefficients of *target acquisitions (unrelated)* and *target divestitures (unrelated)* in model (4) are about twice the corresponding coefficients in model (3). The *p*-value of the test of difference in coefficients between *target acquisitions (related)* and *(unrelated)* is .131, and the *p*-value of the test of difference in coefficients between *target divestitures (related)* and *(unrelated)* is .023. Overall, while the directions of the differences are in line with Hypotheses 2a and 2b, these tests provide weak evidence for Hypothesis 2a and stronger evidence for Hypothesis 2b.

**** Insert Table 2 about here ****

Supplementary Analyses

In this subsection, we provide additional analyses to further examine the mechanisms at play.

Unobserved characteristics of targets that engage in acquisitions and divestitures. First, the patterns shown in Table 2 may be driven by some unobserved characteristics of targets that engaged in acquisitions and divestitures. These targets could systematically differ from other targets, and their idiosyncratic characteristics might affect the acquirer's CAR. To verify this possibility, we considered acquisitions and divestitures that were announced by the target but canceled before the focal acquisition announcement. These canceled announcements served as "placebo" treatments in our study, following the approach used in previous research (e.g., Savor & Lu, 2009; Bena & Li, 2014). If the observed effect of *target acquisitions* on the acquirer's CAR was indeed driven by idiosyncratic characteristics of targets that announced acquisitions, we would expect that even those targets that announced acquisitions but later canceled them would have a lower acquirer's CAR. Similarly, if the effect of *target divestitures* was driven by

idiosyncratic effects, we would anticipate that targets announcing divestitures that were subsequently canceled would have a higher acquirer's CAR.

We thus created the *target canceled acquisitions* variable, defined as the sum of the values of the acquisitions canceled by the target in the three years before the focal acquisition, divided by the value of the focal acquisition. Similarly, we created the *target canceled divestitures* variable, defined as the sum of the values of the divestitures canceled by the target in the three years before the focal acquisition, divided by the value of the focal acquisition. Model (1) of Table 3 shows that targets that announce acquisitions divestitures that are subsequently canceled do not induce a significantly different acquisition performance (*p*-values of *target canceled acquisitions* = .282 and *target canceled divestitures* = .266).

Recency of the target's acquisitions and divestitures. We next examined whether the recency of the target's acquisitions and divestitures plays a role. In model (2) of Table 3, we included variables measuring the target's acquisitions and divestitures in different three-year intervals: a three-year interval ending at the announcement date (i.e., our baseline *target acquisitions* and *target divestitures* variables), a three-year interval ending three years before the announcement date (*t-3*), and a three-year interval ending six years before the announcement date (*t-6*).

Results indicate that only acquisitions that occurred in the recent past affect the acquirer's CAR (*p*-values of *target acquisitions* = .031, *target acquisitions (t-3)* = .230, and *target acquisitions (t-6)* = .562). This suggests that the financial market's negative reaction to acquisition announcements is more pronounced when the target has engaged in recent acquisitions, compared to when it has conducted acquisitions in the more distant past. These results imply that the structural fragmentation resulting from acquisitions appears to diminish over time. This observation underscores the tendency of firms to gradually standardize cultural norms and operational practices as time passes.

Symmetrically, the results suggest that divestitures primarily increase acquisition performance when they are recent (*p*-values of *target divestitures* = .043, *target divestitures (t-3)*

= 0.498, and *target divestitures (t-6)* = 0.541). This suggests that the reduction of structural fragmentation induced by divestitures has a short-lived effect. As previously mentioned, apart from facilitating size reduction and the fostering of a cohesive organizational culture across diverse businesses, the separation process prompted by divestitures can also motivate firms to reevaluate their operational approaches in the remaining businesses, ultimately reducing levels of structural fragmentation. Nevertheless, our research findings suggest that the benefits of process revitalization resulting from divestitures tend to erode swiftly. This is likely due to the rapid development of idiosyncratic operational methods within each business, influenced by factors such as path dependencies, routinized behavior, experience-based effects, and other business-specific patterns. Consequently, there is a notable benefit associated with companies that consistently divest organizational units over time.

Target's diversification as an alternative measure of structural fragmentation. Furthermore, it is worth examining whether the level of structural fragmentation of the target can be better captured by its level of diversification (e.g., Campa & Kedia, 2002; Villalonga, 2004; Rawley, 2010; Zhou, 2011), as opposed to its acquisitions and divestitures. The level of diversification of a company at a given point in time results from past acquisitions and divestitures, as well as internal development and redeployment choices (Villalonga & McGahan, 2005; Lee & Lieberman, 2010; Feldman & Sakhartov, 2022). These corporate scope expansions or reductions may have taken place recently or in the distant past. While highly diversified firms may be more structurally fragmented, the mode and the timing of diversification are likely to be stronger predictors of structural fragmentation than diversification per se. Particularly, recent acquisitions are likely to exacerbate structural fragmentation due to the combination of organizational structures that were previously distinct, while recent divestitures should mitigate it. Yet, to shed further light on the results, in model (3) of Table 3 we compared the effects of the target's acquisitions and divestitures with the impact of the target's level of diversification. Specifically, we added to our baseline model the variable *target diversification*, defined as the logarithm of the number of four-digit SIC codes in which the target has sales using sales data

from Compustat Segments. In the regression, we also controlled for the acquirer's level of diversification, using the same definition. The inclusion of these variables does not alter our previous results, and diversification does not appear to significantly affect the performance of the acquisition. Overall, we can conclude that structural fragmentation is better captured by our theoretical variables.

Effects on total value creation versus acquisition price. We further verified how the target's acquisitions and divestitures affect the acquisition profitability, as measured by the acquirer's CAR. The acquirer's returns from the acquisition could increase because the acquisition creates more overall synergistic value (e.g., Chatterjee, 1986; Larsson & Finkelstein, 1999; Feldman & Hernandez, 2021) or because the acquirer is able to pay a lower price holding constant the synergistic benefits of the acquisition (e.g., Capron & Pistre, 2002; Ahern, 2012; Cuypers et al., 2017). Our theory assumes that the target's acquisitions and divestitures affect the PMI efficiency and therefore the total value that is created by the acquisition. To verify whether the target's acquisitions and divestitures affect the total value created by the acquisition, we ran a regression using the total CAR of the acquirer and the target at the acquisition announcement (e.g., see Cai and Sevilir, 2012): model (4) in Table 3. Specifically, *total CAR* is computed as $(V_a \times CAR_a + V_t \times CAR_t) / (V_a + V_t)$, where CAR_a (CAR_t) is the percentage CAR of the acquirer (target), and V_a (V_t) is the market value of equity of the acquirer (target) 50 trading days before the announcement. The target's CAR is computed as described for the acquirer's CAR in the methodology section. As for the acquirer's CAR, we also considered a five-day window starting two trading days before the acquisition announcement and ending two trading days after (window [–2,+2]). To verify whether the target's acquisitions and divestitures affect the acquisition price, in models (5) and (6) we ran regressions on the target's gains from the acquisition, measured with the target's CAR [–2,+2] and the acquisition premium, respectively. The acquisition premium was sourced from SDC and computed as the percentage difference between the offer price and the market value of the target four weeks before the announcement

(we obtained similar results considering the market value one week or one day before the announcement).

In line with our theory, model (4) shows that the target's acquisitions reduce the total value created (*p*-value of *target acquisitions* = .005), while the target's divestitures increase it (*p*-value of *target divestitures* = .090). Instead, models (5) and (6) do not provide evidence that the target's acquisitions and divestitures affect the acquisition price, as measured by the target's gains.

Effects on the probability of deal cancelation. The target's structural fragmentation can also complicate the planning of the deal. Specifically, the challenges to the PMI associated with structural fragmentation may become apparent while the acquirer and the target negotiate and plan the deal, and this could increase the chances that the deal is canceled. To verify this conjecture, we ran a logit regression to assess whether the target's acquisitions and divestitures affect the probability that the deal is canceled. This regression is reported in model (7) of Table 3, where the dependent variable is a dummy that equals one if the deal is canceled and zero otherwise. In line with this conjecture, the regression shows that *target acquisitions* increases the probability that the deal is canceled (*p*-value = .080; average marginal effect = 0.04). However, *target divestitures* does not seem to play a role (*p*-value = .291).

****Insert Table 3 about here****

Alternative event windows for the acquirer's CAR. Finally, it is noteworthy that our main analyses considered a five-day window centered on the acquisition announcement to compute the acquirer's CAR (window [–2,+2]). In Table 4, we report robustness regressions considering alternative event windows for the acquirer's CAR: windows [–2,+4], [–4,+2], [–1,+1], [–5,+1], and [–1,+5]. The results are broadly consistent with our main results.

**** Insert Table 4 about here ****

DISCUSSION

In this paper, we examined the extent to which the performance of an acquisition is influenced by the target's prior acquisitions and divestitures. The results indicate that the acquirer's CAR—our metric for acquisition performance—decreases with the size of the assets acquired by the target in the three years prior to the acquisition. Conversely, the acquirer's CAR increases with the size of the assets divested by the target in the three years preceding the acquisition. These effects are particularly strong when the target's acquired and divested assets lie outside its core business (i.e., they are unrelated).

Additional analyses showed that acquisitions and divestitures older than three years do not have any significant impact. Moreover, the target's acquisitions and divestitures affected acquisition performance even when controlling for the target's level of diversification, while the latter does not significantly affect the acquisition performance. These patterns suggest that acquisitions and divestitures are more accurate measures of a company's structural fragmentation than simply its diversification level at any point in time. We also examined the mechanism by which the target's acquisitions and divestitures affect the acquirer's returns. While the acquirer's returns can vary as a function of the overall value creation of the deal due to synergies (e.g., Larsson & Finkelstein, 1999; Puranam et al., 2009; Karim & Kaul, 2015; Feldman & Hernandez, 2021) or of the ability of the merging parties to appropriate value from the deal during price negotiations (e.g., Capron & Pistre, 2002; Capron & Shen, 2007; Ahern, 2012; Cuypers et al., 2017), we found that the target's acquisitions and divestitures affect the acquirer's returns through the first channel. Thus, the target's structural fragmentation affects the overall value creation of acquisitions. Finally, we found some evidence that structural fragmentation increases the chances that the deal is canceled, although this effect emerged when measuring structural fragmentation with the target's prior acquisitions, but not with divestitures.

We contribute to the corporate strategy literature in two main ways. First, we extend research on acquisition performance. Several scholars have shown that the performance of an acquisition is strongly influenced by the efficiency of the PMI phase (for a review, see Graebner

et al., 2017). We contribute to this line of inquiry by delving into how the target firm's corporate scope decisions made before the acquisition influence the acquisition's performance. Specifically, we find that acquisition performance declines as the size of assets acquired by the target increases, while it improves as the size of assets divested by the target increases. We also find that these effects are particularly pronounced when the acquired and divested assets are unrelated. Moreover, our supplementary analyses reveal that these effects are particularly significant when the acquisitions and divestitures are recent.

These results provide support to our argument that a target firm that has heavily engaged in acquisitions is difficult to integrate as the acquirer is compelled to initially restructure the acquired firm before reconfiguring its resources into its own resource base. This effort makes the focal acquisition notably complex and risky, as the final acquirer is confronted with the task of blending diverse norms, processes, identities, and cultures, potentially undermining the intended benefits of the acquisition (Puranam et al., 2009; Karim & Kaul, 2015). Furthermore, our findings endorse our claim that the PMI phase is more efficient in acquisitions where the target has homogenized its structures through divestitures. This highlights the importance of divestitures in streamlining and harmonizing a firm's cultural norms and ways of doing things. Our study thus offers valuable insights into how a target firm's corporate scope history significantly influences the performance of acquisitions, indicating the negative impact of prior acquisitions and the positive impact of prior divestitures.

In parallel, our research builds upon existing studies that have explored related topics. For instance, Phalippou et al. (2015) demonstrated that firms acquiring serial acquirers do so to preemptively ward off potential acquisition by those very targets, thereby receiving a negative reaction from financial markets. Cuypers et al. (2009) employed an experiential learning view to demonstrate that the target's acquisition experience could lead to better deal conditions during negotiations. Zorn et al. (2019) revealed that acquiring a firm with prior acquisition experience puts negative pressure on the final acquirer's managerial capacity. Our contribution to this line of research is to emphasize that a target's acquisitions bring a variety of norms, processes, systems,

identities, and cultures to the final acquirer, thereby posing major challenges during the PMI phase. In contrast, the target's divestitures facilitate the streamlining and harmonization of its operations and processes. In summary, our study adds to the understanding of how a target firm's corporate scope history affects acquisition performance, highlighting the adverse effects of prior acquisitions and the positive effects of prior divestitures.

Our second significant contribution lies in the broader literature on organizational structure. We introduce the novel concept of "structural fragmentation," which denotes the extent to which a firm's organizational entities exhibit heterogeneous structures, irrespective of the entities' level of relatedness. Through our research, we demonstrate that corporate acquisitions lead to a rise in a firm's level of structural fragmentation by introducing organizational units that operate with specific cultural norms and operating systems, particularly evident in unrelated acquisitions. Conversely, divestitures facilitate a reduction in levels of structural fragmentation by allowing the firm to reevaluate its operational processes and to streamline its structure. We further support this notion by showing that the impact of divestitures on structural simplification is especially pronounced in unrelated divestitures, which enable the firm to divest units operating with different ways of doing things.

Our study significantly expands research that has explored the interplay between organizational structures and acquisitions. Karim (2006) highlighted differences in the fate of newly acquired units compared to internally developed units, often involving more frequent merging and divestiture activities for the former. Barkema and Schijven (2008) found that acquisitions are often followed by substantial restructuring efforts aimed at simplifying and streamlining the firm's structure. Other research has examined factors influencing the extent of structural integration for acquisitions' targets (Zaheer et al., 2013; Puranam et al., 2009). In contrast, our study takes a different approach by examining the antecedents of organizational structures. We demonstrate that acquisitions not only require structural integration to achieve the expected benefits, as suggested by the aforementioned line of research, but also lead to a broader increase in a firm's level of structural fragmentation by introducing units with specific ways of

operating. Conversely, divestitures play a crucial role in reducing levels of structural fragmentation, particularly when they involve unrelated assets. Overall, our findings reveal that, relative to internal growth, acquisitions elevate a firm's levels of structural fragmentation, while divestitures have the opposite effect, reducing such fragmentation. This constitutes a key contribution to the literature on organizational structure, as the origins of such structures have rarely been explored before.

Our study yields significant managerial implications, emphasizing the importance for firms to carefully assess the recent corporate scope decisions of potential acquisition targets before proceeding with any acquisition. Such decisions can have a critical impact on the efficiency of the PMI phase, ultimately influencing the overall performance of the acquisition. Specifically, our research demonstrates that financial markets tend to devalue acquisitions of firms that have recently engaged in acquiring assets, particularly those that are unrelated to their core business. Our argument is that firms acquiring targets with a history of substantial growth through acquisitions often encounter significant challenges during the integration phase, as they must also integrate the acquired target's own acquisitions. This, in turn, highlights the presence of an "acquisition discount" associated with the target's prior acquisitions. Conversely, we show that financial markets positively value acquisitions of firms that have recently divested assets, particularly those that are unrelated to their core business. Such firms are easier to integrate due to their more homogeneous structures resulting from these recent divestitures. This suggests the existence of a "divestiture premium" for firms that have recently engaged in divestitures.

Overall, our results provide crucial insights to decision-makers considering successful acquisitions. Our findings suggest that they should exercise caution when targeting firms that have extensively and recently grown through acquisitions, especially if they are unrelated, while firms with a recent history of divestitures, especially those involving unrelated assets, can be valuable gems in the market for corporate control. These insights are likely to be valuable to managers designing corporate and acquisition strategies.

Like all studies, ours also comes with certain limitations that open opportunities for future research. One of the limitations lies in our use of CAR as the measure of acquisition performance. By using CAR, we are able to capture the stock price reactions to acquisition events and thus isolate the valuation effects of acquisitions from those of other events affecting companies. Yet, this measure of acquisition performance assumes that financial markets are able to form correct expectations about future performance (Haleblian et al., 2009; Zaheer et al., 2010). Future research could explore alternative metrics to evaluate acquisition performance, such as accounting measures. Although the latter may be less suitable to isolate the effect of acquisitions from that of other confounding events, evaluating the long-run performance implications of structural fragmentation can provide complementary and valuable insights. Likewise, we measured structural fragmentation through the observed acquisitions and divestitures of targets and the degree of structural fragmentation with measures of relatedness, as defined with SIC codes. As new measures of firms' internal processes, cultures, and knowledge bases become available (e.g., Li, Mai, Shen, & Yan, 2021; Marchetti & Puranam, 2022; Testoni, 2022), future research could explore novel ways to measure structural fragmentation within firms. Finally, we studied the effects of structural fragmentation of target firms on acquisition performance. While we believe this empirical context is important to derive valuable insights for managers designing acquisition strategies, structural fragmentation may have consequences in other domains of corporate strategy. For instance, it could affect the relative benefits of alternative corporate scope decisions of a focal firm, such as resource redeployment, divestitures, and alliances. Studying the consequences of structural fragmentation on these other decisions provides an interesting venue for future research.

In a broader context, several studies have examined whether diversified firms have a diversification discount or premium in the stock market (e.g., Campa & Kedia, 2002; Villalonga, 2004). A discount is attributed to the presence of intra-unit coordination costs that do not exist in single-business firms, while a premium is attributed to intra-firm economies of scope. Our study complements this literature by providing evidence that an expansion of corporate scope through

acquisitions translates into a discount in the valuation of M&As. Conversely, a reduction of corporate scope through divestitures induces a premium in the valuation of M&As. We claim that these valuation effects are due to the expected challenges associated with PMI, which can create frictions in the market for corporate control. We encourage future research to further investigate how the acquisition discount and divestiture premium highlighted in our study affect a firm's valuation in the stock markets and other accounting performance measures. Such studies would significantly contribute to the literature on the diversification discount or premium. Indeed, while researchers have examined the valuation effects of diversification, the mode (i.e., internal vs. external) through which diversification is achieved may matter as well.

CONCLUSION

The main goal of our study was to investigate how a target firm's past acquisitions and divestitures affect the performance of a current acquisition. To achieve this, we combined research on organizational structure and corporate acquisitions. Our key argument was that the effectiveness of an acquisition's PMI phase is hindered by the target firm's levels of structural fragmentation, which tend to increase with acquisitions and decrease with divestitures. Supporting this view, our results revealed that the performance of an acquisition tended to decrease when the target firm had previously acquired larger assets, especially if they were unrelated to its core business. We also found that acquisition performance tended to rise when the target firm had divested larger assets, particularly if they were unrelated. In summary, our study sheds light on how a firm's decisions regarding acquisitions and divestitures can affect its organizational structure. By differentiating between decisions that increase structural fragmentation and those that decrease it, we have contributed valuable insights to the field of corporate strategy research.

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TABLE 1
Descriptive Statistics and Correlation Matrix [a]

	Mean	S.D.	Min	Max	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) *Acquirer CAR [-2,+2] (%)*	-1.52	8.35	-29.14	22.41										
(2) *Target acquisitions*	0.10	0.24	0.00	1.46	-.05									
(3) *Target acquisitions (related)*	0.04	0.12	0.00	0.84	-.02	.63								
(4) *Target acquisitions (unrelated)*	0.06	0.16	0.00	1.06	-.06	.77	.03							
(5) *Target divestitures*	0.04	0.17	0.00	1.17	.03	.12	.03	.12						
(6) *Target divestitures (related)*	0.01	0.07	0.00	0.57	.01	.04	.05	.02	.63					
(7) *Target divestitures (unrelated)*	0.02	0.11	0.00	0.80	.04	.12	.01	.13	.78	.07				
(8) *Market proximity*	0.46	0.47	0.00	1.00	.00	.02	.09	-.04	.01	.03	-.01			
(9) *Geographic proximity*	0.26	0.44	0	1	-.03	.00	.01	-.01	.00	-.02	.01	.01		
(10) *Toehold*	0.08	0.26	0	1	.05	.04	.01	.04	.06	.03	.04	-.06	-.01	
(11) *% of stock*	50.40	44.79	0.00	100.00	-.20	.02	.03	.00	-.05	-.05	-.04	.08	.11	-.12
(12) *High-tech target*	0.26	0.44	0	1	-.05	.03	.03	.01	-.06	-.05	-.04	.01	-.04	-.07
(13) *Target log(assets)*	5.72	1.92	0.11	12.28	-.03	.08	.07	.07	.10	.06	.09	.07	.06	-.01
(14) *Target ROA*	-0.02	0.19	-1.02	0.26	.02	-.13	-.09	-.08	-.01	-.03	.01	.01	.00	.05
(15) *Target M/B*	1.74	1.30	0.61	8.56	-.10	-.07	-.05	-.06	-.08	-.04	-.09	-.02	-.04	-.06
(16) *Target R&D*	0.05	0.09	0.00	0.51	-.04	-.04	.00	-.05	-.07	-.04	-.06	.03	-.03	-.06
(17) *Target cash*	0.17	0.21	0.00	0.85	-.08	-.08	-.06	-.07	-.08	-.05	-.07	.02	-.02	-.06
(18) *Target leverage*	0.55	0.26	0.06	1.15	.05	.03	.01	.02	.09	.06	.07	.01	.08	-.03
(19) *Acquirer log(assets)*	7.21	2.10	0.32	13.87	.03	-.03	.00	-.03	.00	-.01	.01	-.04	.01	-.06
(20) *Acquirer ROA*	0.02	0.12	-0.66	0.22	.03	-.08	-.08	-.04	.00	.00	-.01	.01	-.04	.02
(21) *Acquirer M/B*	1.98	1.55	0.75	10.37	-.13	-.03	-.02	-.02	-.08	-.04	-.07	.02	-.04	-.08
(22) *Acquirer R&D*	0.03	0.06	0.00	0.33	-.11	-.02	.00	-.02	-.07	-.04	-.06	.05	.02	-.08
(23) *Acquirer cash*	0.15	0.18	0.00	0.80	-.09	.04	.02	.02	-.04	-.02	-.04	.00	-.04	.01
(24) *Acquirer leverage*	0.57	0.24	0.07	1.05	.05	-.03	-.02	-.02	.04	.02	.03	-.04	.10	.01

	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
(12) *High-tech target*	.00												
(13) *Target log(assets)*	.03	-.22											
(14) *Target ROA*	-.07	-.14	.25										
(15) *Target M/B*	.11	.22	-.21	-.06									
(16) *Target R&D*	.03	.40	-.33	-.53	.36								
(17) *Target cash*	.04	.35	-.31	-.29	.45	.55							
(18) *Target leverage*	.02	-.29	.43	-.01	-.28	-.29	-.50						
(19) *Acquirer log(assets)*	-.10	-.13	.71	.21	-.02	-.18	-.16	.29					
(20) *Acquirer ROA*	-.17	-.05	.13	.37	.04	-.17	-.17	.03	.23				
(21) *Acquirer M/B*	.15	.25	-.21	-.10	.52	.31	.39	-.32	-.23	.02			
(22) *Acquirer R&D*	.10	.41	-.28	-.33	.28	.66	.53	-.34	-.27	-.30	.41		
(23) *Acquirer cash*	.05	.33	-.29	-.29	.29	.46	.51	-.31	-.34	-.19	.41	.52	
(24) *Acquirer leverage*	.01	-.31	.40	.18	-.25	-.36	-.35	.52	.43	-.03	-.35	-.37	-.50

[a] The sample includes 4,283 acquisition announcements.

TABLE 2
Main Results [a]

	(1)	(2)	(3)	(4)[b]
	Acquirer CAR [-2,+2] (%)			
Target acquisitions	-1.33**		-1.42**	
	(0.66)		(0.65)	
Target acquisitions (related)				-0.75
				(0.90)
Target acquisitions (unrelated)				-2.73**
				(1.10)
Target divestitures		1.48**	1.64**	
		(0.73)	(0.74)	
Target divestitures (related)				-0.55
				(1.38)
Target divestitures (unrelated)				3.69***
				(1.27)
Market proximity	0.46**	0.47**	0.47**	0.45*
	(0.23)	(0.23)	(0.23)	(0.23)
Geographic proximity	0.04	0.02	0.03	0.02
	(0.42)	(0.41)	(0.41)	(0.41)
Toehold	0.47	0.41	0.45	0.46
	(0.48)	(0.48)	(0.48)	(0.47)
% of stock	-0.03***	-0.03***	-0.03***	-0.03***
	(0.00)	(0.00)	(0.01)	(0.00)
High-tech target	0.42	0.41	0.44	0.45
	(0.50)	(0.46)	(0.48)	(0.48)
Target log(assets)	-0.49***	-0.55***	-0.51***	-0.50***
	(0.13)	(0.14)	(0.13)	(0.13)
Target ROA	-0.53	-0.15	-0.49	-0.62
	(1.15)	(1.12)	(1.15)	(1.18)
Target M/B	-0.26**	-0.26**	-0.26**	-0.25**
	(0.12)	(0.12)	(0.12)	(0.12)
Target R&D	3.37***	3.71***	3.40***	3.16***
	(0.84)	(0.82)	(0.85)	(0.82)
Target cash	-1.42***	-1.25***	-1.47***	-1.51***
	(0.45)	(0.39)	(0.45)	(0.40)
Target leverage	0.62	0.62	0.54	0.51
	(0.63)	(0.64)	(0.64)	(0.64)
Acquirer log(assets)	0.21*	0.24**	0.22*	0.21*
	(0.11)	(0.11)	(0.11)	(0.11)
Acquirer ROA	-2.13	-2.08	-2.14	-2.01
	(1.59)	(1.57)	(1.61)	(1.64)
Acquirer M/B	-0.13	-0.11	-0.12	-0.13
	(0.18)	(0.17)	(0.18)	(0.18)
Acquirer R&D	-9.74***	-9.60***	-9.67***	-9.45***
	(3.47)	(3.42)	(3.48)	(3.49)
Acquirer cash	-1.29*	-1.46*	-1.30*	-1.30*
	(0.76)	(0.75)	(0.77)	(0.77)
Acquirer leverage	-0.14	-0.18	-0.18	-0.14
	(0.77)	(0.77)	(0.76)	(0.76)
Target industry FE [c]	Yes	Yes	Yes	Yes
Acquirer industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
R^2	0.114	0.113	0.115	0.117
N	4,283	4,283	4,283	4,283

[a] Standard errors (in parentheses) are two-way clustered by target industry and acquirer industry (Cameron et al., 2011).
[b] In model (4), the *p*-value of the test of difference in coefficients between *target acquisitions (related)* and *(unrelated)* is .131, and the *p*-value of the test of difference in coefficients between *target divestitures (related)* and *(unrelated)* is 0.023.
[c] FE = fixed effects.
* $p < .10$; ** $p < .05$; *** $p < .001$

TABLE 3
Supplementary Results [a]

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Acquirer CAR [-2,+2] (%)			*Total CAR (%)*	*Target CAR [-2,+2] (%)*	*Premium (%)*	*Cancelled*
Target canceled acquisitions	1.43						
	(1.32)						
Target canceled divestitures	48.33						
	(43.05)						
Target acquisitions		-1.48**	-1.42**	-1.82***	-1.23	-2.61	0.31*
		(0.67)	(0.65)	(0.63)	(1.59)	(3.07)	(0.18)
Target acquisitions (t-3)		-0.83					
		(0.69)					
Target acquisitions (t-6)		0.64					
		(1.10)					
Target divestitures		1.85**	1.50**	0.88*	-0.83	-5.14	0.25
		(0.89)	(0.74)	(0.51)	(2.05)	(3.60)	(0.24)
Target divestitures (t-3)		-1.11					
		(1.63)					
Target divestitures (t-6)		-0.90					
		(1.46)					
Target diversification			0.40				
			(0.27)				
Acquirer diversification			0.07				
			(0.26)				
Market proximity	0.47**	0.49**	0.52**	0.61**	0.06	1.40	-0.18*
	(0.23)	(0.24)	(0.24)	(0.23)	(0.94)	(1.37)	(0.11)
Geographic proximity	0.02	0.14	0.03	0.26	0.35	-0.13	-0.25**
	(0.41)	(0.44)	(0.42)	(0.29)	(1.09)	(1.30)	(0.11)
Toehold	0.46	0.70	0.43	0.51	-0.88	4.32	0.65***
	(0.48)	(0.53)	(0.48)	(0.34)	(1.27)	(3.02)	(0.15)
% of stock	-0.03***	-0.03***	-0.03***	-0.03***	-0.07***	-0.06***	-0.00***
	(0.01)	(0.01)	(0.01)	(0.00)	(0.01)	(0.02)	(0.00)
High-tech target	0.39	0.34	0.47	0.32	1.34*	3.55	0.06
	(0.49)	(0.57)	(0.50)	(0.48)	(0.78)	(2.44)	(0.17)
Target log(assets)	-0.54***	-0.59***	-0.55***	0.77***	-3.45***	-4.56***	0.34***
	(0.14)	(0.14)	(0.13)	(0.08)	(0.22)	(0.66)	(0.04)
Target ROA	-0.15	-0.69	-0.48	2.45**	5.72*	-6.03	-0.29
	(1.13)	(1.32)	(1.16)	(1.12)	(3.26)	(5.09)	(0.32)
Target M/B	-0.26**	-0.26**	-0.26**	-0.08	-3.36***	-3.73***	0.05
	(0.12)	(0.12)	(0.12)	(0.09)	(0.43)	(0.57)	(0.05)
Target R&D	3.72***	3.06**	3.45***	5.94***	16.42***	16.27	-0.57
	(0.86)	(1.20)	(0.90)	(1.30)	(5.37)	(10.55)	(0.85)
Target cash	-1.21***	-1.74***	-1.38***	-1.25	1.79	5.48	0.08
	(0.41)	(0.55)	(0.48)	(0.84)	(4.24)	(6.35)	(0.33)
Target leverage	0.67	0.48	0.53	-0.65	4.67	16.28***	-0.00
	(0.63)	(0.64)	(0.63)	(0.68)	(2.90)	(4.98)	(0.25)
Acquirer log(assets)	0.23**	0.30**	0.23**	-1.07***	2.85***	2.38***	-0.43***
	(0.11)	(0.14)	(0.11)	(0.07)	(0.26)	(0.71)	(0.04)
Acquirer ROA	-2.04	-2.29	-2.12	-2.32*	2.03	-1.72	-0.29
	(1.53)	(1.65)	(1.61)	(1.19)	(3.14)	(7.60)	(0.42)
Acquirer M/B	-0.12	-0.16	-0.12	-0.45***	1.36***	2.89***	-0.08**
	(0.18)	(0.20)	(0.18)	(0.14)	(0.25)	(0.58)	(0.04)
Acquirer R&D	-9.62***	-8.74**	-9.57***	-8.21**	-1.00	-28.55**	-2.77**
	(3.41)	(3.71)	(3.45)	(3.68)	(11.50)	(13.29)	(1.17)
Acquirer cash	-1.46*	-1.26	-1.26	-0.76	0.63	-1.84	0.27
	(0.76)	(0.79)	(0.79)	(0.94)	(2.38)	(3.90)	(0.33)
Acquirer leverage	-0.13	-0.34	-0.20	1.76**	-2.42	-0.97	0.36
	(0.76)	(0.82)	(0.76)	(0.86)	(1.78)	(3.57)	(0.27)
R^2	0.113	0.119	0.115	0.145	0.183	0.160	
Pseudo-R^2							0.150
N	4,283	3,841	4,283	4,283	4,283	3,849	4,283

[a] Standard errors are in parentheses. * p < .10 ; ** p < .05 ; *** p < .001. FE = fixed effects. Models (1)–(6) are linear regressions with standard errors two-way clustered by target industry and acquirer industry (Cameron et al., 2011). Model (7) is a logit regression. The full sample includes 4,283 observations. The number of observations drops in model (2) because the variables *target acquisitions (t-6)* and *target divestitures (t-6)* are defined only for deals announced after 1988. In model (6), the number of observations drops due to missing values on the premium variables in SDC.

TABLE 4
Alternative Event Windows for the Acquirer's CAR[a]

Acquirer CAR (%) window:	(1) [-2,+4]	(2) [-4,+2]	(3) [-1,+1]	(4) [-5,+1]	(5) [-1,+5]
Target acquisitions	-1.56**	-1.80***	-0.98*	-1.39**	-1.27**
	(0.78)	(0.68)	(0.52)	(0.56)	(0.58)
Target divestitures	1.72*	2.14*	1.84**	1.87*	1.61*
	(0.86)	(1.09)	(0.79)	(0.98)	(0.92)
Market proximity	0.59*	0.55**	0.36*	0.49*	0.51*
	(0.31)	(0.27)	(0.18)	(0.26)	(0.28)
Geographic proximity	0.15	0.04	-0.07	-0.16	0.16
	(0.43)	(0.46)	(0.36)	(0.41)	(0.44)
Toehold	0.58	0.37	0.30	-0.04	0.59
	(0.45)	(0.56)	(0.37)	(0.52)	(0.43)
% of stock	-0.03***	-0.03***	-0.03***	-0.02***	-0.03***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
High-tech target	0.64	0.63	0.32	0.34	0.64
	(0.54)	(0.42)	(0.43)	(0.49)	(0.59)
Target log(assets)	-0.64***	-0.54***	-0.49***	-0.56***	-0.64***
	(0.16)	(0.14)	(0.13)	(0.14)	(0.13)
Target ROA	-0.61	-1.09	-1.16	-0.88	-0.59
	(1.24)	(1.24)	(1.25)	(1.26)	(1.14)
Target M/B	-0.32**	-0.30***	-0.16	-0.42***	-0.20
	(0.13)	(0.10)	(0.14)	(0.13)	(0.14)
Target R&D	2.88***	5.77***	1.13	4.70**	1.84
	(1.03)	(1.99)	(0.79)	(2.35)	(1.38)
Target cash	-1.76**	-1.72**	-1.19*	-1.14	-1.11
	(0.88)	(0.71)	(0.69)	(0.93)	(0.97)
Target leverage	0.69	0.23	0.38	0.37	0.92
	(0.75)	(0.86)	(0.67)	(0.93)	(0.84)
Acquirer log(assets)	0.37***	0.17	0.22*	0.21	0.38***
	(0.13)	(0.12)	(0.12)	(0.14)	(0.13)
Acquirer ROA	-2.29	-1.50	-2.36*	-2.41	-1.23
	(1.47)	(2.32)	(1.35)	(1.53)	(1.45)
Acquirer M/B	-0.21	-0.27	-0.09	-0.20	-0.39**
	(0.20)	(0.19)	(0.11)	(0.12)	(0.19)
Acquirer R&D	-10.03**	-9.15***	-7.59***	-6.93***	-9.58**
	(4.36)	(3.44)	(2.71)	(2.61)	(3.98)
Acquirer cash	-1.03	-0.80	-1.31*	0.11	-0.64
	(1.01)	(0.55)	(0.71)	(0.72)	(1.05)
Acquirer leverage	-0.18	0.38	-0.17	0.45	-0.55
	(0.65)	(0.79)	(0.73)	(0.94)	(0.71)
Target industry FE[b]	Yes	Yes	Yes	Yes	Yes
Acquirer industry FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
R^2	0.106	0.107	0.126	0.102	0.109
N	4,283	4,283	4,283	4,283	4,283

[a] Standard errors (in parentheses) are two-way clustered by target industry and acquirer industry (Cameron et al., 2011).
[b] FE = fixed effects.
* $p < .10$; ** $p < .05$; *** $p < .001$