

# EXAMINING EFFECTS OF MANAGERIAL AND INSTITUTIONAL OWNERSHIPS ON THE MARKET VALUE OF CORPORATE SPINOFFS

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**ABSTRACT** Corporate spinoffs are tax-free transactions between the parent firm (a.k.a. divesting firm) and its newly created, independent spun-off subsidiary (a.k.a. child firm) to increase value for both sides' shareholders. As critical governance mechanisms, in this study we examine the effects of institutional and managerial ownerships on the market value of spun-off subsidiaries based on the corporate governance literature and behavioral agency perspective. In our sample, we have 144 completed U.S. spinoffs within a 14-year of time span, which are drawn from the SDC Platinum. According to our empirical analysis, we have found that both ownership structures have significant negative effects on the change in market value of the child firm. In addition, we have examined the interaction effect of both ownerships, which results in another significant effect in the opposite direction. Thus, this study reveals the critical importance of institutional and managerial ownerships for the market success of spun-off subsidiaries.

**KEYWORDS:** *corporate spinoffs; corporate governance; behavioral agency theory; market value; managerial ownership; institutional ownership.*

## 1. INTRODUCTION

The relationship between corporate governance and corporate performance has been extensively studied in the management and finance literature (Alessandri and Seth, 2014; Benson et al., 2020; Bhagat and Boltin, 2019; Boyd and Solarino, 2016; Crifo, Escrig-Olmedo, and Mottis, 2019; El Diri, Lambrinoudakis, and Alhadab, 2020; Fama and Jensen, 1983; Gerged, 2021; Goranova et al, 2007; Jensen and Meckling, 1976; Jia, Juang, and Zhang, 2019; Khan, Mather, and Balachandran, 2014; Mutlu et al., 2018; Paniagua, Rivelles, and Sapena, 2018; Shan, 2019). A substantial amount of this research has focused on the performance of established firms. However, the corporate governance literature has devoted considerably less attention to corporate spinoffs, representing a unique form of corporate restructuring (Makhija, 2004).

Corporate governance encompasses all influences that affect organizational processes by establishing and utilizing effective control mechanisms for better performance (Turnbull, 1997). In the literature, some scholars have particularly focused on the impact of ownership structure on performance (Demsetz and Villalonga, 2001; Kao, Hodgkinson and Jaafar, 2019; Kumar and Zattoni, 2015; Rashid, 2020; Thomsen and Pedersen, 2000). Regarding corporate spinoffs, some studies have examined the impact on the parent company's performance after the spinoff event (Evald, Clarke and Jensen, 2009; Hite and Owers, 1983; Krishnaswami and Subramaniam, 1999; McKendrick, Wade, and Jaffee, 2009) as well as the value created by the spun-off company (Ahn and Walker, 2007; Iturriaga and Cruz, 2008; Klepper and Sleeper, 2005; Nkongho and Makina, 2020; Ozbek, 2021; Ozbek, 2020; Ozbek and Boyd, 2020; Semadeni and Cannel-

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la, 2011; Veld and Veld-Merkoulova, 2004; Wruck and Wruck, 2002). Some researchers have found the superior long-term performance of both spun-off firms and their corporate parents (Cusatis, Miles and Woolridge, 1993; Desai and Jain, 1999; McConnell, Ozbilgin and Wahal, 2001).

Desai and Jain (1999) define a corporate spinoff as “a pro rata distribution of the shares of the subsidiary to the parent’s shareholders to create a new entity that trades independently of its former parent” (p. 78). In a spinoff, the parent company distributes the shares of this spun-off subsidiary to its existing shareholders (Gertner, Powers and Scharfstein, 2002). Once the spinoff is completed, the new organization becomes an independent, stand-alone public entity (Miles and Rosenfeld, 1983). Corporate spinoffs are designed to create value for the parent company and its child. As such, these corporate transactions usually significantly impact the owners of the spun-off company and the parent company (Maxwell and Rao, 2003).

Semadeni and Cannella (2011) focus on the performance implications of parental ownership after the spinoff. Their study has underscored the importance of ownership structure for the success of spun-off firms. As argued in the literature, a firm’s ownership structure is “influenced by profit-maximizing interests of shareholders” (Demsetz and Villalonga, 2001: 210). This argument highlights the importance of different ownership structures for the company’s value maximization efforts. Studies on corporate governance have found that certain owners – e.g., institutional owners – may fall short in their quest to maximize shareholder value (Tilba and McNulty, 2013). Other studies suggest that management ownership of shares can lead to loss-averse behavior (Carpenter et al., 2010), which raises the question of how different types of ownership structures can create – or perhaps erode – value in spinoff companies.

Previous studies on ownership structures have revealed divergent implications for firm performance. For instance, high levels of managerial ownership have been shown to influence loss-averse behavior (Carpenter et al., 2010). Lumapow (2018) has found that managerial ownership – at a high level – negatively affects firm value. Furthermore, Lange, Boivie and Westphal (2015) have concluded that institutional ownership negatively moderates the relationship between firm performance and the organizational identification of the CEO. Nevertheless, our understanding of how the ownership stakes of institutional investors and top managers influence the market value of spun-off firms remains unknown.

This research gap, coupled with the unique founding conditions underlying corporate spinoffs, provides an opportunity to examine the following

research question: To what extent do different ownership structures of spun-off firms affect their market value? In particular, how do institutional and managerial ownerships influence the market value of spun-offs? To answer this question, we draw on the literature on corporate governance and behavioral agency to explain the influence of different forms of ownership. In this paper, we analyze two critical ownership structures – that of top managers and institutional investors – and their impact on the market value of corporate spinoffs to better understand their success parameters in the market as stand-alone entities.

Our study contributes to the literature in the following ways. First, we extend the research on spinoffs by building on the work of Semadeni and Cannella (2011) to explain the differential effects of ownership by top managers and institutional investors on market value. Second, we extend the behavioral logic of top managers’ ownership stakes to spinoffs. Our theory reveals an ownership structure paradox in the sense that prior research has emphasized the value-creating aspect of spinoffs (Cusatis et al., 1993; Desai and Jain, 1999; McConnell et al., 2001), yet high management ownership and high institutional ownership lead to lower market value for spun-off firms.

It has been argued that ownership structure is very important as it is “the source of conflict between owners and managers” (Aguilera and Crespi-Cladera, 2016: 50). In the corporate world, these structures play an important role in managing companies. It has also been noted that the nature of ownership, including ownership concentration, is likely to influence firm performance (Bao and Lewellyn, 2017). For spun-off companies, it is becoming increasingly important to understand how these structures affect the market success of these new organizations as they now operate independently after being spun off from their parent companies. Effectively managing these new independent companies will be a “significant” success factor in establishing their legitimacy in the marketplace and competing with their industry rivals. Therefore, we investigate the “significant” importance of two different ownership structures for spun-off firms. We test our theoretical framework using a sample of 144 US corporate spinoffs between 2000 and 2014. Our results clearly show that institutional and managerial ownership structures have a significant negative relationship with the market value of spun-off firms.

## 2. DEFINING CORPORATE SPINOFFS

First, we explain the background of our study, namely corporate spinoffs, which usually occur in the context of executive decisions to restructure the core

business of the parent company and to improve the operating efficiency of both the parent company and the spun-off subsidiary (Veld and Veld-Merkoulova, 2008). The U.S. Internal Revenue Code (IRC), Section 335 f, requires three main criteria for a corporate reorganization to qualify as a spinoff: "(1) *The distribution must constitute at least 80% of the outstanding shares of the corporate spinoffs, and the shares retained by the parent should not constitute a 'practical control' of the corporate spinoff;* (2) *both the parent and the corporate spinoff must be engaged in an active trade or business for at least five years prior to the ex-date;* (3) *the transaction is done for sound business reasons and not as a means of avoiding taxes*" (Desai and Jain, 1999: 78-79). So, it is clear that the government is setting some strict rules in this regard.

Corporate spinoffs provide investors with a unique opportunity to understand better and evaluate the value creation potential of the restructuring firm (Bergh, Johnson and Dewitt, 2008). In other words, this restructuring technique aims to bring the "hidden" potential of the company to the surface. From the perspective of their market value, Chemmanur and Yan (2004) argue that "*after the spinoff, equity values of securities traded provide a much cleaner signal of the managerial productivity*" (p. 261). This tells us that the company's market value may increase due to effective managerial practices and efficient organizational operations, as the company's executives will have a clearer understanding of the corporate goals.

Before the spinoff event, the market may undervalue the subsidiary due to its non-transparent organizational structure and inability to allocate resources effectively, a major concern for shareholders (Hoehle et al., 2012). By focusing on the core aspects of its business and creating a more transparent system of its operations, the spinoff event can assist both the divesting firm and its subsidiary eliminate this market undervaluation. Following the same principle, both firms can also improve the quality of their products and services by allocating resources more efficiently to their core business (Bergh et al., 2008). Therefore, corporate spinoffs are expected to create substantial value for shareholders and provide investors with a better understanding of the company's strategic direction (Feldman, Gilson and Villalonga, 2014). Overall, spinoffs can be considered strategic "value-boosters" in the corporate world.

On the other hand, spinoffs might embody several ambiguities due to the uncertainty following the corporate separation. First and foremost, Corley and Gioia (2004) contend that the members of the spun-off firm – during and after the spinoff event – may be uncertain about their collective status as an independent entity, including their future status, which

is referred to as "identity ambiguity." This ambiguity can lead to discomfort or anxiety within the organization, as company members keep asking themselves, "*We are not sure who we are right now and we need to figure it out soon*" (Corley and Gioia, 2004: 193). Secondly, while increasing shareholder value is a primary objective, this restructuring technique also carries the major risk of the company underperforming the market through the immediate attainment of independent status and the permanent loss of parental resources (Hambrick and Stucker, 1999). Finally, spun-off firms must quickly establish their legitimacy and credibility within the industry to run their businesses independently and succeed in the marketplace (Hambrick and Stucker, 1999). Overall, all these challenges arising from the uncertainties for the spun-off firms may not always lead to the expected value creation. It is, therefore, very important to analyze which "key" factors could be decisive for the success of this value-creation process.

### 3. HYPOTHESES DEVELOPMENT

As widely argued in the literature, ownership structure, an important pillar of governance mechanisms, has some significant effects on firm performance and related strategies (Aguilera and Crespi-Cladera, 2016; Al-Najjar and Taylor, 2008; Bao and Lewellyn, 2017; Bethel and Liebeskind, 1993). According to Demsetz and Villalonga (2001), ownership structures are very important in that they reflect "*decisions made by those who own or who would own shares*" (p. 210). From another perspective, these structures are important indicators for the choice of corporate monitoring and related value-maximizing actions (Dhillon and Rossetto, 2015). Thus, ownership structures are critical to firm performance.

Bell, Filatotchev and Aguilera (2014) have argued that governance mechanisms affect investor perceptions. These mechanisms also help curb top managers' possible opportunistic mindset (Hoetker and Mellewigh, 2009) and thus ensure an effective organizational environment (Misangyi and Acharya, 2014). As a crucial part of these mechanisms, ownership structures can significantly influence the value-creation process (Demsetz and Lehn, 1985). Therefore, examining and understanding whether they influence firm value in the context of spun-off firms is crucial.

#### 3.1. Institutional ownership

Institutional ownership provides the firm with a critical opportunity to monitor managerial decisions and keep the top management team "in line" with

the firm's short-term profits (Hoskisson et al., 2002). Pathak, Hoskisson, and Johnson (2014) argue that managerial opportunism can be reduced by influential investors, who are considered crucial actors in effective governance mechanisms. Institutional investors can also play an important monitoring role in determining top executives' compensation levels. (Victoravich, Xu, and Gan, 2013). In addition, institutional investors can influence top managers' decisions on critical issues (e.g., corporate restructuring) through their voting power and enhanced information processing capabilities (Shin and Shin, 2013). All these arguments suggest that institutional investors can serve as valuable "strategic-balancing mechanisms" while effectively managing organizations.

According to agency theory, institutional investors who own a large portion of firm shares can better effectively monitor both the actions and decisions of top management, which can lead to a reduction in "the likelihood that insiders will make sub-optimal decisions" (Navissi and Naiker, 2006: 249). In addition, the "active monitoring" hypothesis argues that institutions tend to "actively manage their investment portfolio due to the magnitude of wealth invested" (Velury and Jenkins, 2006: 1043). In principle, this mechanism has some advantages for the organization; however, this may not be the case in the context of corporate spinoffs.

Suppose institutional investors own a large percentage of shares. In that case, top managers may attempt to take actions that depend on the performance orientation of these investors by minimizing the risk factor (Chaganti and Damanpour, 1991). More specifically, these managers may focus primarily on meeting these investors' "short-term" expectations by neglecting long-term projects with higher risk and added value. From the perspective of institutional activism, due to the lack of expertise of pension fund managers in advising corporate management (Gillan and Starks, 2000), their focus on the success parameters of corporate performance may be very different from that of other shareholders. This type of divergent perceptions (and interests) could prevent executives from utilizing their managerial discretion for further market growth (Hadani, 2012). Hadani (2012), for example, has found a negative correlation between institutional ownership and corporate political activity. Graves (1988) has also found a negative correlation between institutional ownership and corporate R&D investment.

Following the latter perspective, the pressure exerted by institutional investors might lead to serious inefficiencies in spun-off firms and affect the decision-making processes of top management. More specifically, if the institutional investors do not know

exactly what a spun-off firm needs to achieve because they focus on short-term financial goals, this can put significant pressure on executives to make important decisions that "strictly" meet the institutional investors' short-term expectations without considering the long-term growth of the company. As a result, these recently independent companies will neither be able to take bold steps towards growth nor establish their organizational identity "properly" because they are in a short-term oriented "bubble." Therefore, we argue that institutional ownership and the change in market value of spun-off firms are negatively related. Thus:

H1: *Among spun-off firms, the level of institutional ownership negatively influences the change in their market value.*

### 3.2. Managerial ownership

Managerial ownership represents "endowed wealth to managers" (Alessandri and Seth, 2014: 2065). While managerial ownership structure may become beneficial under the condition that "incentive benefits outweigh costs," it can be detrimental to firm performance due to the "risk-avoiding behavior by top managers" (Alessandri and Seth, 2014: 2065) if their ownership percentage is high.

According to Dimmock, Gerken and Marietta-Westberg (2015), higher managerial ownership can reduce the need for external monitoring. This suggests that when top managers own a larger share of the company, they are motivated to act in the best interest of shareholders (Jensen and Meckling, 1976). In other words, ownership of company shares encourages executives to take strategic actions that increase shareholder value and pursue investment opportunities that are in the best interest of shareholders (Alessandri and Seth, 2014). On the positive side, an important strategy for maximizing shareholder value can be achieved through managers owning a substantial proportion of company shares (Coles, Lemmon and Meschke, 2012).

Alternatively, the behavioral agency view of the firm (Wiseman and Gomez-Mejia, 1998) suggests that managers are only boundedly rational and may, therefore, be susceptible to several biases in their decision-making (Carpenter et al., 2010). In addition, stock ownership and stock options have unique risk profiles (Sanders, 2001). For example, management ownership may lead to a greater emphasis on loss aversion (Carpenter et al., 2010). Therefore, top managers are likelier to pursue more risk-averse decisions to protect their wealth and reputation. That is, Sanders (2001) has argued that "stock ownership can result in executives suffering real and immediate

reductions in their current wealth" (p. 479). Essentially, any decline in the company's stock price is directly linked to an immediate reduction in executives' current wealth, so these executives may prefer to choose less risky alternatives (Alessandri and Seth, 2014). As the behavioral agency perspective further argues, the loss-averse behavior of top managers (Sanders, 2001) may prevent the firm from developing the necessary capabilities to compete with rivals. Florackis, Kostakis and Ozkan (2009) argue that higher levels of managerial ownership may lead to negative performance outcomes. Goranova et al. (2007) concur with this argument by finding a negative relationship between managerial ownership and corporate diversification.

In the context of spun-off firms, managerial ownership can lead to serious problems in increasing shareholder wealth as these spun-off firms operate under various uncertainties and ambiguities. Since managers cannot know or predict the potential performance of the spun-off firm, they may have to choose risk-free alternatives to protect their wealth and reputation. This situation may prevent the company from growing its business and creating further shareholder value. Therefore, we argue that managerial ownership and the change in market value of spun-off firms are negatively related. Thus:

*H 2: Among spun-off firms, managerial ownership negatively influences the change in their market value.*

### 3.3. Interaction effect of both ownership structures

The positive effects of the ownership structure on company growth are discussed in the literature. For instance, according to Alessandri, Tong and Reuer (2012), managerial stock ownership, which "often leads to longer-term, more uncertain payoffs to managers" (p. 1558), is positively related to growth option value. In addition, Cumming et al. (2019) have found that institutional ownership is positively associated with the likelihood of public firms going private. Both studies show that ownership by both managers and institutional owners can have a positive impact on the life of companies. In the context of spinoffs, we argue that when top managers and institutional investors are somewhat on the "same page" regarding the long-term corporate goals of these recently independent entities, this "collective mindset" can positively influence their market value. In other words, if top managers and institutional investors have a high ownership status simultaneously, this strategic "combination" will help the spun-off subsidiary improve its market value. Thus:

*H 3: Among spun-off firms, the interaction effect of institutional and managerial ownership positively*

*influences the change in their market value.*

## 4. METHODOLOGY

### 4.1. Sample

Our initial sample consisted of 205 completed U.S. corporate spinoffs, which took place between 2000 and 2014. These cases were all extracted from the SDC Platinum database. We only included cases in which 100% of spun-off subsidiary shares were distributed to the shareholders of the parent firm. All events were verified using other online resources to ensure the accuracy of the spinoff event itself and the date of its completion. As some spun-off firms were acquired by (or merged with) other firms or filed for bankruptcy within the first two years following the spinoff, our final sample included 144 spun-off firms.

Corporate governance data were extracted from the companies' proxy statements (DEF 14A) listed on the U.S. Securities and Exchange Commission's website. Data on industry and company characteristics were taken from the CompuStat database. A one-year lag (Al-Jaifi, Al-Rassas and Al-Qadasi, 2019) was necessary for this research as the financial information on company performance would be more accurately reflected in the first full year following the spinoff event. For instance, if a spinoff's completion date were September 2011, the financial data for the first year would be extracted from the beginning of 2012. This approach provided important data consistency in our sample.

### 4.2. Analysis

Institutional and managerial ownership were used as two predictors (independent variables) to explain the change in the market value of spun-off firms. We used the first two-year change in Tobin's Q as the dependent variable (outcome variable). We then estimated the model using ordinary least squares (OLS) regression, widely used in the social sciences to analyze linear models with robust errors (Pohlmann and Leitner, 2003). According to Schumacker, Monahan and Mount (2002), "the assumptions of OLS are that residual errors should be normally distributed, have equal variance at all levels of the independent variables (homoscedasticity), and be uncorrelated with both the independent variables and with each other" (p. 10). Following Aiken and West (1991), our full and contingency models can be expressed as follows:

- **The change in market valuation of spun-off subsidiaries (full model)** =  $\beta_0 + \beta_1$  Managerial ownership +  $\beta_2$  Institutional ownership +  $\epsilon_1$

- **The change in market valuation of spun-off subsidiaries (contingency model)** =  $\beta'_0 + \beta'_1 \text{ Managerial ownership} + \beta'_2 \text{ Institutional ownership} + \beta'_3 \text{ Managerial} \times \text{Institutional ownerships} + \epsilon'_1$

**4.3. Measurement**

**4.3.1. Dependent variable**

The dependent variable was measured as the log difference in Tobin's Q:  $\ln(\text{Tobin's Q}_{+1, \text{Year 2}}) - \ln(\text{Tobin's Q}_{+1, \text{Year 1}})$ , where Year 1 is the first full fiscal year after the spinoff. Log difference as a measure of change has been used extensively in the finance and economics literature (Calomiris and Mason, 2003; Ramcharan, Verani and Van Den Heuvel, 2016). In the governance and finance literature, Tobin's Q is also a widely used proxy for examining the firm's operating performance and future growth opportunities (Fu, Singhal, and Parkash, 2016; Ishaq, Islam, and Ghouse, 2021).

**4.3.2. Independent variables**

We measured institutional ownership as the percentage of equity held by institutional investors (Pathak et al., 2014) and managerial ownership as the percentage of equity held by top managers (Alessandri and Seth, 2014).

**4.3.3. Control variables**

We included several control variables that might affect the child firm's market value. Directors' age was measured by the average age of the board of direc-

tors (Westphal and Zajac, 1995). CEO age showed the age of the CEO (Wiersema and Bantel, 1992). Industry dummy was measured by creating a dummy variable for manufacturing versus service firms to partially exclude the effects of two major industry types (Guthrie, 2001). Firm size (logged) was measured by the natural logarithm of the number of employees in the firm (Cabral and Mata, 2003; Verwaal and Donkers, 2002). Industry munificence was measured by "the regression slope coefficient (sales over time) divided by the corresponding mean value of industry sales" (Brauer and Wiersema, 2012: 1480). Board size was measured by the number of directors sitting on the board (Zhu and Chen, 2015). Finally, we included a dummy variable for the year to control for "unusual" economic and environmental conditions during the study period.

**5. RESULTS**

Table 1 contains the descriptive statistics and correlations for the variables in this study. The average for managerial ownership is 4.2%, while the average for institutional ownership is 54.8%. This means that top managers own about four percent of the company's shares, while this percentage is about fifty-five percent for institutional investors. For the full model, the mean of the variance inflation factors (VIFs) is 1.38, and the highest individual VIF is 1.73, which indicates that multicollinearity does not affect our results (Barako and Brown, 2008).

**TABLE 1.** Means, standard deviations, and intercorrelations among study variables

VARIABLES	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. <b>Change in Tobin's Q (ln)</b>	0.013	0.333	1.000									
2. <b>Firm size (ln)</b>	0.649	2.103	-0.244***	1.000								
3. <b>Board average age</b>	58.15	4.587	0.039	0.070	1.000							
4. <b>CEO age</b>	53.11	7.891	-0.111	0.088	0.581***	1.000						
5. <b>Industry dummy</b>	0.473	0.500	-0.062	-0.059	0.209***	0.186**	1.000					
6. <b>Year dummy</b>	0.092	0.290	-0.135	0.187**	0.021	-0.057	-0.137	1.000				
7. <b>Munificence</b>	0.076	0.097	-0.199**	0.105	-0.015	-0.027	-0.219***	0.144**	1.000			
8. <b>Board size</b>	7.521	1.941	0.003	0.516***	0.192**	0.115	-0.151***	0.256**	0.010	1.000		
9. <b>Managerial ownership</b>	0.042	0.098	-0.018	-0.181**	0.173	0.019	0.004	0.100	-0.186*	-0.042	1.000	
10. <b>Institutional ownership</b>	0.548	0.296	-0.170**	0.369***	0.087	-0.016	-0.104	0.007	0.052	0.273***	-0.280***	1.000

Note: \*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.1.

Table 2 contains our OLS regression results. Model 1 includes only control variables. Models 2 and 3 include managerial and institutional ownership, respectively. The managerial and institutional ownership coefficients in predicting the change in Tobin's Q are negative and significant ( $B = -0.558$ ;  $p < 0.05$ ;  $B = -0.230$ ,  $p < 0.05$ ). This means that Hypotheses 1 and 2 are strongly supported. Based on these results,

we have demonstrated a negative and significant relationship between each ownership structure and the change in the market valuation of the spun-off firm. Model 4 contains our interaction term. The coefficient for managerial and institutional ownership interaction in predicting this change is positive and significant ( $B = 2.236$ ,  $p < 0.05$ ). This means that Hypothesis 3 is also strongly supported.

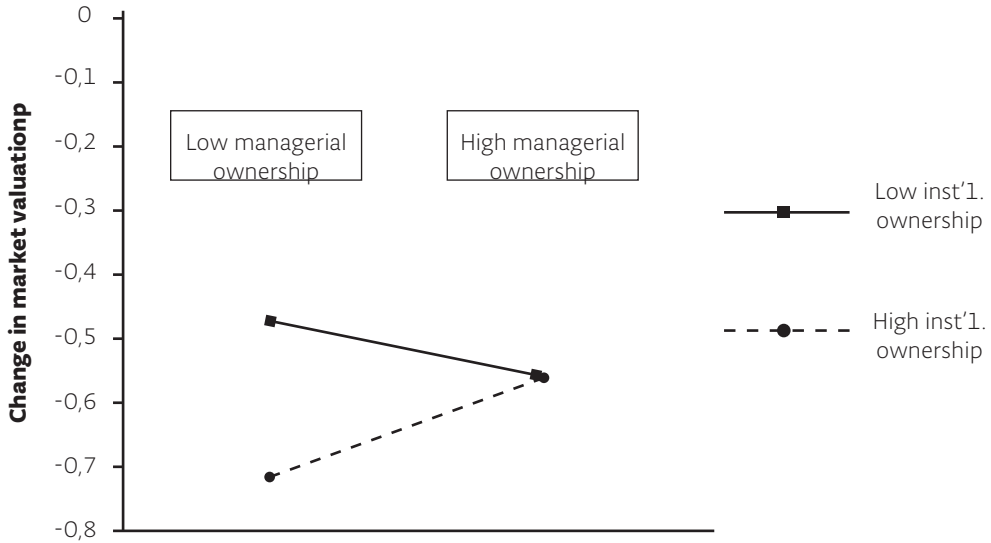
**TABLE 2.** Independent and contingency models of managerial and institutional ownerships (robust standard errors in parentheses)

DV: Change in Tobin's Q (ln)	MODEL 1	MODEL 2	MODEL 3	MODEL 4
<b>Control variables</b>				
Firm size (ln)	-0.045** (0.019)	-0.049** (0.019)	-0.040** (0.018)	-0.036* (0.018)
Board average age	0.012 (0.004)	0.015* (0.007)	0.018** (0.008)	0.019** (0.008)
CEO age	-0.008 (0.005)	-0.008* (0.005)	-0.010* (0.005)	-0.010** (0.005)
Industry dummy	-0.074 (0.053)	-0.080 (0.053)	-0.094* (0.052)	-0.092* (0.052)
Year dummy	-0.135** (0.058)	-0.115** (0.050)	-0.129** (0.052)	-0.112** (0.051)
Munificence	-0.608** (0.252)	-0.694*** (0.264)	-0.722*** (0.268)	-0.745*** (0.270)
Board size	0.027 (0.018)	0.027 (0.018)	0.030* (0.018)	0.030* (0.018)
<b>Explanatory variables</b>				
Managerial ownership	---	<b>-0.393*</b> (0.233)	<b>-0.558**</b> (0.259)	<b>-0.995***</b> (0.227)
Institutional ownership	---	---	<b>-0.230**</b> (0.100)	<b>-0.292***</b> (0.107)
<b>Interaction variable</b>				
Managerial X Institutional ownership	---	---	---	<b>2.236**</b> (0.973)
Sample size	144	144	144	144
R-squared	0.157	0.171	0.202	0.217

**Note:** \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ .

We provide a plot in Figure 1 to better understand this interaction effect. According to this plot, the spun-off firm will experience a positive and significant change in its market value if the shares of both management and institutional owners are higher.





**FIGURE 1.** The interaction effect of managerial and institutional ownership on the change in market valuation of the spun-off subsidiary

**6. DISCUSSION**

Does the ownership structure play a role in the market performance of corporate spinoffs? In this empirical study, we analyzed the impact of institutional and managerial ownership on changes in the market value of corporate spinoffs.

As the governance literature argues, ownership structures have important implications for governing firms (Aguilera and Crespi-Cladera, 2016). These structures uniquely influence the firm’s executives’ behavior and decision-making processes (Bao and Lewellyn, 2017). In the case of spinoff firms, the influence of managerial and institutional owners can be seen as even more crucial as these spinoff firms begin to operate independently and without “parental” resources. Our research shows that managerial and institutional ownership negatively impact spinoff firms’ market value change.

Our empirical results show that managerial ownership significantly and negatively impacts the change in the market value of the spun-off firm. Following the arguments of the behavioral agency perspective, the consequences of certain governance practices may sometimes be context-dependent (Wiseman and Gomez-Mejia, 1998; Sanders, 2001). In our context of spinoffs, a negative and significant relationship indicates that the future success (e.g., long-term survival) of these recently independent firms may be jeopardized and that providing long-

term incentives to top managers encourages them not to take bold or risky actions, which is considered a critical component for growing operations. As a result, this ownership structure does not increase the market value of spinoffs, as the loss-averse mentality of top managers raises further questions about their ability to keep these firms “strong and vibrant” in the eyes of existing shareholders and potential investors over the long term. This finding aligns with that of Dixon, Guariglia and Vijayakumaran (2017), who show that higher levels of managerial ownership have led to a decline in firms’ export intensity and propensity to export.

Institutional ownership also has a negative and significant impact on the market value of spinoff firms. Institutional investors play an important role in corporate life as they provide a valuable “check and balance” mechanism for top management. On the other hand, it must be recognized that the short-term financial expectations of institutional investors can negatively influence top management’s decision-making, potentially overlooking companies’ long-term strategic goals. Particularly in the context of spinoffs, executives need to fully utilize their decision-making scope by critically considering the long-term survival of their companies. In their companies’ “newborn” phase, the pressure from institutional investors may not be very helpful. Schmidt and Fahlenbrach (2017) have found that changes in institutional ownership are significantly and negatively associated



with cumulative returns at the announcement of an acquisition. An increase in institutional investor holdings leads to negative cumulative abnormal returns, which is undesirable in corporate reorganizations (Schmidt and Fahlenbrach, 2017). This result is certainly in line with ours.

Finally, our results for the interaction effect show that the combination of both ownership structures has a positive and significant effect on the market value of spun-off firms. This result is very interesting as it suggests that higher ownership by top managers and institutional investors simultaneously helps increase the spinoff company's market value.

## 7. CONTRIBUTIONS

Our study makes the following contributions. First, we extend the literature on corporate spinoffs by examining the unique effects of ownership by top managers and institutional investors on the market value of spun-off subsidiaries. This aspect of our study extends the work of Semadeni and Cannella (2011). Second, we build on the behavioral agency literature (Wiseman and Gomez-Mejia, 1998; Carpenter et al., 2010) by focusing on the ownership stakes of inside managers of spinoff firms. Third, our study reveals a spinoff paradox in which higher levels of top management and institutional ownership lead to lower value creation. Finally, our moderation analysis shows that the simultaneous presence of both ownership structures at higher levels leads to better value creation.

## 8. LIMITATIONS, FUTURE RESEARCH, AND MANAGERIAL IMPLICATIONS

Although this study has made several important contributions to the governance literature, it is not without limitations. First, this study only examined two types of owners. Future research may examine other aspects of corporate governance to uncover further "significant" relationships with the market value of these corporate spinoffs. Second, future research can examine spinoffs internationally, as our study only covers U.S. corporate spinoffs. Third, our study covers 14 years between 2000 and 2014. Based on the extension of our dataset to recent years, future research may identify some possible differences in the governance structures of spinoff subsidiaries within the last decade. Fourth, in the present study, the dominant owners tend to be institutional investors. Future research could examine the dynamics between institutional and managerial owners to examine risk-taking and related firm performance.

Overall, our findings on ownership structures suggest that larger ownership held by top managers and institutional investors leads to a decrease in the market value of corporate spinoffs; however, the combination of both ownerships at higher levels leads to an increase. We hope that this study will generate more interest in spinoffs.

## REFERENCES

1. Ahn, S., Walker, M.D. (2007). Corporate governance and the spinoff decision. *Journal of Corporate Finance*, 13(1), 76-93.
2. Aguilera, R.V., Crespi-Cladera, R. (2016). Global corporate governance: On the relevance of firms' ownership structure. *Journal of World Business*, 51(1), 50-57.
3. Al-Najjar, B., Taylor, P. (2008). The relationship between capital structure and ownership structure: New evidence from Jordanian panel data. *Managerial Finance*, 34(12), 919-933.
4. Alessandri, T.M., Tong, T.W., Reuer, J.J. (2012). Firm heterogeneity in growth option value: The role of managerial incentives. *Strategic Management Journal*, 33(13), 1557-1566.
5. Alessandri, T.M., Seth, A. (2014). The effects of managerial ownership on international and business diversification: Balancing incentives and risks. *Strategic Management Journal*, 35(13), 2064-2075.
6. Al-Jaifi, H.A., Al-Rassas, A.H., Al-Qadasi, A. (2019). Institutional investor preferences: Do internal auditing function and audit committee effectiveness matter in Malaysia? *Management Research Review*, 42(5), 641-659.
7. Bao, S.R., Lewellyn, K.B. (2017). Ownership structure and earnings management in emerging markets—An institutionalized agency perspective. *International Business Review*, 26(5), 828-838.
8. Barako, D.G., Brown, A.M. (2008). Corporate social reporting and board representation: Evidence from the Kenyan banking sector. *Journal of Management & Governance*, 12(4), 309-324.
9. Bell, R.G., Filatotchev, I., Aguilera, R.V. (2014). Corporate governance and investors' perceptions of foreign IPO value: An institutional perspective. *Academy of Management Journal*, 57(1), 301-320.
10. Benson, B.W., Chen, Y., James, H.L., Park, J.C. (2020). So far away from me: Firm location and the managerial ownership effect on firm value. *Journal of Corporate Finance*, 64, 101658.
11. Bergh, D.D., Johnson, R.A., Dewitt, R.L., (2008). Restructuring through spinoff or sell-off: Transforming information asymmetries into financial gain. *Strategic Management Journal*, 29(2), 133-148.
12. Bethel, J.E., Liebeskind, J. (1993). The effects of ownership structure on corporate restructuring. *Strategic Management Journal*, 14(5), 15-31.
13. Bhagat, S., Bolton, B. (2019). Corporate governance and firm performance: The sequel. *Journal of Corporate Finance*, 58, 142-168.
14. Boyd, B.K., Solarino, A.M. (2016). Ownership of corporations: A review, synthesis, and research agenda. *Journal of Management*, 42(5), 1282-1314.
15. Brauer, M.F., Wiersema, M.F. (2012). Industry divestiture waves: How a firm's position influences investor returns. *Academy of Management Journal*, 55(6), 1472-1492.
16. Cabral, L., Mata, J. (2003). On the evolution of the firm size distribution: Facts and theory. *American Economic Review*, 93(4), 1075-1090.
17. Calomiris, C.W., Mason, J.R. (2003). Consequences of bank distress during the Great Depression. *American Economic Review*, 93(3), 937-947.
18. Carpenter, M.A., Indro, D.C., Miller, S.R., Richards, M. (2010). CEO stock-based pay, home-country risk, and foreign firms' capital acquisition in the U.S. market. *Corporate Governance: An International Review*, 18(6), 496-510.
19. Chaganti, R., Damanpour, F. (1991). Institutional ownership, capital structure, and firm performance. *Strategic Management Journal*, 12(7), 479-491.
20. Coles, J.L., Lemmon, M.L., Meschke, J.F. (2012). Structural models and endogeneity in corporate finance: The link between managerial ownership and corporate performance. *Journal of Financial Economics*, 103(1), 149-168.
21. Corley, K.G., Gioia, D.A. (2004). Identity ambiguity and change in the wake of a corporate spinoff. *Administrative Science Quarterly*, 49(2), 173-208.
22. Crifo, P., Escrig-Olmedo, E., Mottis, N. (2019). Corporate governance as a key driver of corporate sustainability in France: The role of board members and investor relations. *Journal of Business Ethics*, 159(4), 1127-1146.
23. Cumming, D., Peter, R., Sannajust, A., Tarsalewska, M. (2019). Pre-going private ownership around the world. *British Journal of Management*, 30(3), 692-711.
24. Cusatis, P.J., Miles, J.A., Woolridge, J.R. (1993). Restructuring through spinoffs: The stock market evidence. *Journal of Financial Economics*, 33(3), 293-311.
25. Hambrick, D.C., Stucker, K. (1999). Breaking away: Executive leadership of corporate spinoffs. In: Conger, J.A., Spreitzer, G.M., Lawler III, E.E. (eds) *The Leader's Change Handbook: An Essential Guide to Setting Direction and Taking Action*. San Francisco: Jossey-Bass. pp. 100-124.
26. Demsetz, H., Lehn, K. (1985). The structure of corporate ownership: Causes and consequences. *Journal of Political Economy*, 93(6), 1155-1177.
27. Demsetz, H., Villalonga, B. (2001). Ownership

- structure and corporate performance. *Journal of Corporate Finance*, 7(3), 209-233.
28. Desai, H., Jain, P.C. (1999). Firm performance and focus: Long-run stock market performance following spinoffs. *Journal of Financial Economics*, 54(1), 75-101.
  29. Dhillon, A., Rossetto, S. (2015). Ownership structure, voting, and risk. *The Review of Financial Studies*, 28(2), 521-560.
  30. Dimmock, S.G., Gerken, W.C., Marietta-Westberg, J. (2015). What determines the allocation of managerial ownership within firms? Evidence from investment management firms. *Journal of Corporate Finance*, 30, 44-64.
  31. Dixon, R., Guariglia, A., Vijayakumaran, R. (2017). Managerial ownership, corporate governance and firms' exporting decisions: Evidence from Chinese listed companies. *The European Journal of Finance*, 23(7-9), 802-840.
  32. El Diri, M., Lambrinouidakis, C., Alhadab, M. (2020). Corporate governance and earnings management in concentrated markets. *Journal of Business Research*, 108, 291-306.
  33. Fama, E.F., Jensen, M.C. (1983). Separation of ownership and control. *The Journal of Law and Economics*, 26(2), 301-325.
  34. Feldman, E.R., Gilson, S.C., Villalonga, B. (2014). Do analysts add value when they most can? Evidence from corporate spinoffs. *Strategic Management Journal*, 35(10), 1446-1463.
  35. Florackis, C., Kostakis, A., Ozkan, A. (2009). Managerial ownership and performance. *Journal of Business Research*, 62(12), 1350-1357.
  36. Fu, L., Singhal, R., Parkash, M. (2016). Tobin's q ratio and firm performance. *International Research Journal of Applied Finance*, 7(4), 1-10.
  37. Gerged, A.M. (2021). Factors affecting corporate environmental disclosure in emerging markets: The role of corporate governance structures. *Business Strategy and the Environment*, 30(1), 609-629.
  38. Gertner, R., Powers, E., Scharfstein, D. (2002). Learning about internal capital markets from corporate spinoffs. *The Journal of Finance*, 57(6), 2479-2506.
  39. Gillan, S.L., Starks, L.T. (2000). Corporate governance proposals and shareholder activism: The role of institutional investors. *Journal of Financial Economics*, 57(2), 275-305.
  40. Goranova, M., Alessandri, T.M., Brandes, P., Dharwadkar, R. (2007). Managerial ownership and corporate diversification: A longitudinal view. *Strategic Management Journal*, 28(3), 211-225.
  41. Graves, S.B. (1988). Institutional ownership and corporate R&D in the computer industry. *Academy of Management Journal*, 31(2), 417-428.
  42. Guthrie, J.P. (2001). High-involvement work practices, turnover, and productivity: Evidence from New Zealand. *Academy of Management Journal*, 44(1), 180-190.
  43. Hadani, M. (2012). Institutional ownership monitoring and corporate political activity: Governance implications. *Journal of Business Research*, 65(7), 944-950.
  44. Hite, G.L., Owers, J.E. (1983). Security price reactions around corporate spinoff announcements. *Journal of Financial Economics*, 12(4), 409-436.
  45. Hoechle, D., Schmid, M., Walter, I., Yermack, D. (2012). How much of the diversification discount can be explained by poor corporate governance? *Journal of Financial Economics*, 103(1), 41-60.
  46. Hoetker, G., Mellewigt, T. (2009). Choice and performance of governance mechanisms: Matching alliance governance to asset type. *Strategic Management Journal*, 30(10), 1025-1044.
  47. Hoskisson, R.E., Hitt, M.A., Johnson, R.A., Grossman, W. (2002). Conflicting voices: The effects of institutional ownership heterogeneity and internal governance on corporate innovation strategies. *Academy of Management Journal*, 45(4), 697-716.
  48. Ishaq, M., Islam, Y., Ghouse, G. (2021). Tobin's Q as an indicator of firm performance: Empirical evidence from manufacturing sector firms of Pakistan. *International Journal of Economics & Business Administration*, 1, 425-441.
  49. Iturriaga, F.L., Cruz, N.M. (2008). Antecedents of corporate spinoffs in Spain: A resource-based approach. *Research Policy*, 37(6-7), 1047-1056.
  50. Jensen, M.C., Meckling, W.H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
  51. Jia, N., Huang, K.G., Man Zhang, C. (2019). Public governance, corporate governance, and firm innovation: An examination of state-owned enterprises. *Academy of Management Journal*, 62(1), 220-247.
  52. Kao, M.F., Hodgkinson, L., Jaafar, A. (2019). Ownership structure, board of directors and firm performance: Evidence from Taiwan. *Corporate Governance: The International Journal of Business in Society*, 19(1), 189-216.
  53. Khan, A., Mather, P., Balachandran, B. (2014). Managerial share ownership and operating performance: Do independent and executive directors have different incentives? *Australian Journal*

- of Management, 39(1), 47-71.
54. Klepper, S., Sleeper, S. (2005). Entry by spinoffs. *Management Science*, 51(8), 1291-1306.
  55. Krishnaswami, S., Subramaniam, V. (1999). Information asymmetry, valuation, and the corporate spinoff decision. *Journal of Financial Economics*, 53(1), 73-112.
  56. Kumar, P., Zattoni, A. (2015). Ownership structure, corporate governance and firm performance. *International Journal of Economics and Financial Issues*, 6(3S), 99-108.
  57. Lange, D., Boivie, S., Westphal, J.D. (2015). Predicting organizational identification at the CEO level. *Strategic Management Journal*, 36(8), 1224-1244.
  58. Lumapow, L.S. (2018). The influence of managerial ownership and firm size on debt policy. *International Journal of Applied Business and International Management*, 3(1), 47-55.
  59. Makhija, M.V. (2004). The value of restructuring in emerging economies: The case of the Czech Republic. *Strategic Management Journal*, 25(3), 243-267.
  60. Maxwell, W.F., Rao, R.P. (2003). Do spinoffs expropriate wealth from bondholders? *The Journal of Finance*, 58(5), 2087-2108.
  61. McConnell, J.J., Ozbilgin, M., Wahal, S. (2001). Spinoffs, ex ante. *The Journal of Business*, 74(2), 245-280.
  62. McKendrick, D.G., Wade, J.B., Jaffee, J. (2009). A good riddance? Spinoffs and the technological performance of parent firms. *Organization Science*, 20(6), 979-992.
  63. Miles, J.A., Rosenfeld, J.D. (1983). The effect of voluntary spinoff announcements on shareholder wealth. *The Journal of Finance*, 38(5), 1597-1606.
  64. Misangyi, V.F., Acharya, A.G. (2014). Substitutes or complements? A configurational examination of corporate governance mechanisms. *Academy of Management Journal*, 57(6), 1681-1705.
  65. Mutlu, C.C., Van Essen, M., Peng, M.W., Saleh, S.F., Duran, P. (2018). Corporate governance in China: A meta-analysis. *Journal of Management Studies*, 55(6), 943-979.
  66. Navissi, F., Naiker, V. (2006). Institutional ownership and corporate value. *Managerial Finance*, 32(3), 247-256.
  67. Nkongho, M.E., Makina, D. (2020). Long-run performance of corporate spinoffs and sell-offs: Evidence from the JSE limited. *South African Journal of Economic and Management Sciences*, 23(1), 1-10.
  68. Ozbek, O.V. (2020). The market success of corporate spinoffs: Do CEO external directorships, age, and their interactions matter? *American Business Review*, 23(2), 235-252.
  69. Ozbek, O.V. (2021). Market performance of spun-off subsidiaries: Effects of board independence and directors' industry experience. *American Business Review*, 24(1), 249-267.
  70. Ozbek, O.V., Boyd, B. (2020). The influence of CEO duality and board size on the market value of spun-off subsidiaries: The contingency effect of firm size. *Journal of Strategy and Management*, 13(3), 333-350.
  71. Paniagua, J., Rivelles, R., Sapena, J. (2018). Corporate governance and financial performance: The role of ownership and board structure. *Journal of Business Research*, 89, 229-234.
  72. Pathak, S., Hoskisson, R.E., Johnson, R.A. (2014). Settling up in CEO compensation: The impact of divestiture intensity and contextual factors in refocusing firms. *Strategic Management Journal*, 35(8), 1124-1143.
  73. Pohlman, J.T., Leitner, D.W. (2003). A comparison of ordinary least squares and logistic regression. *Ohio Journal of Science*, 103(5), 118-125.
  74. Ramcharan, R., Verani, S., Van den Heuvel, S.J. (2016). From Wall Street to main street: The impact of the financial crisis on consumer credit supply. *The Journal of Finance*, 71(3), 1323-1356.
  75. Sanders, W.G. (2001). Behavioral responses of CEOs to stock ownership and stock option pay. *Academy of Management Journal*, 44(3), 477-492.
  76. Schmidt, C., Fahlenbrach, R. (2017). Do exogenous changes in passive institutional ownership affect corporate governance and firm value? *Journal of Financial Economics*, 124(2), 285-306.
  77. Schumacker, R.E., Monahan, M.P., Mount, R.E. (2002). A comparison of OLS and robust regression using S-PLUS. *Multiple Linear Regression Viewpoints*, 28(2), 10-13.
  78. Semadeni, M., Cannella Jr, A.A. (2011). Examining the performance effects of post spinoff links to parent firms: Should the apron strings be cut? *Strategic Management Journal*, 32(10), 1083-1098.
  79. Shan, Y.G. (2019). Managerial ownership, board independence and firm performance. *Accounting Research Journal*, 32(2), 203-220.
  80. Shin, J., Shin, H. (2013). Institutional ownership and technological relatedness: A test of endogeneity. *Journal of Business Research*, 66(11), 2279-2286.
  81. Thomsen, S., Pedersen, T. (2000). Ownership structure and economic performance in the largest European companies. *Strategic Management Journal*, 21(6), 689-705.
  82. Tilba, A., McNulty, T. (2013). Engaged versus dis-

- engaged ownership: The case of pension funds in the U.K. *Corporate Governance: An International Review*, 21(2), 165-182.
83. Turnbull, S. (1997). Corporate governance: Its scope, concerns and theories. *Corporate Governance: An International Review*, 5(4), 180-205.
  84. Veld, C., Veld-Merkoulova, Y.V. (2004). Do spinoffs really create value? The European case. *Journal of Banking & Finance*, 28(5), 1111-1135.
  85. Veld, C., Veld-Merkoulova, Y.V. (2008) An empirical analysis of the stockholder-bondholder conflict in corporate spinoffs. *Financial Management*, 37(1), 103-124.
  86. Verwaal, E., Donkers, B. (2002). Firm size and export intensity: Solving an empirical puzzle. *Journal of International Business Studies*, 33(3), 603-613.
  87. Victoravich, L.M., Xu, P., Gan, H. (2013). Institutional ownership and executive compensation: Evidence from U.S. banks during the financial crisis. *Managerial Finance*, 39(1), 28-46.
  88. Westphal, J.D., Zajac, E.J. (1995). Who shall govern? CEO/board power, demographic similarity, and new director selection. *Administrative Science Quarterly*, 40(1), 60-83.
  89. Wiersema, M.F., Bantel, K.A. (1992). Top management team demography and corporate strategic change. *Academy of Management Journal*, 35(1), 91-121.
  90. Wiseman, R.M., Gomez-Mejia, L.R. (1998). A behavioral agency model of managerial risk taking. *Academy of Management Review*, 23(1), 133-153.
  91. Wruck, E.G., Wruck, K.H. (2002). Restructuring top management: Evidence from corporate spinoffs. *Journal of Labor Economics*, 20(S2), S176-S218.
  92. Zhu, D.H., Chen, G. (2015). Narcissism, director selection, and risk-taking spending. *Strategic Management Journal*, 36(13), 2075-2098.

## UTJECAJ UPRAVLJAČKOG I INSTITUCIONALNOG VLASNIŠTVA NA TRŽIŠNU VRIJEDNOST KORPORATIVNIH SPIN-OFF PODUZEĆA

### SAŽETAK

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Korporativni spin-offovi su porezno oslobođene transakcije između matične tvrtke (tvrtke koja se razdvaja) i njezine novostvorene, neovisne odvojene podružnice (poduzeće-dijete), s ciljem povećanja vrijednosti za dioničare s obje strane. Kao ključni mehanizmi upravljanja, u ovoj studiji istražujemo utjecaje institucionalnog i upravljačkog vlasništva na tržišnu vrijednost odvojenih podružnica temeljem literature o korporativnom upravljanju i teoriji agencijskog ponašanja. Uzorak obuhvaća 144 dovršena odvajanja u SAD-u, unutar vremenskog razdoblja od 14 godina, navedena u bazi podataka SDC Platinum. Prema empirijskoj analizi, otkrili smo da obje vlasničke strukture imaju značajne negativne učinke na promjenu tržišne vrijednosti poduzeća-djeteta. Osim toga, istražili smo interakcijski učinak obaju vlasničkih struktura, što rezultira još jednim značajnim učinkom u suprotnom smjeru. Stoga ova studija otkriva ključnu važnost institucionalnog i upravljačkog vlasništva za tržišni uspjeh odvojenih podružnica.

**KLJUČNE RIJEČI:** *korporativna odvajanja; korporativno upravljanje; teorija ponašajne agencije; tržišna vrijednost; upravljačko vlasništvo; institucionalno vlasništvo.*