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Research on Market Dynamics and Corporate Motivations: Insights from Stock Split Phenomenon

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Abstract. This study focuses on the phenomenon of stock splits, with a primary aim to address three pivotal questions: 1. What are the valuation implications of stock splitting? 2. Which determinants influence market reactions to announcements of stock splits? 3. What characteristics drive the decision to enact a stock split? Through meticulous examination of relevant literature and analysis of provided data, this paper presents several key findings. Firstly, it is observed that the market demonstrates a significant reaction within the [0, 1] day window surrounding a stock split announcement, whereas no discernible effect is noted beyond this interval, as evidenced by cumulative abnormal returns. Secondly, the degree of market response is found to be modulated by factors such as post-announcement return on price adjustment (LPRCAFT), company size, historical performance (PASTPERF), and adjustments in dividend payouts (DIVUP). Lastly, the inclination towards executing a stock split is predominantly influenced by the company's recovery performance, its share price, and the overall size of the company.

Keywords: Stock Splitting; Valuation Implications; Corporate Decisions.

1. Introduction

The primary objective of this study is to assess the impact of stock splits on the valuation of a company. Given that the fundamental aim of issuing shares is to enhance capital acquisition capabilities, the market's reaction to a firm's decision to undergo a stock split is of paramount importance for future fundraising endeavors. This segment of the research endeavors to ascertain a straightforward "yes" or "no" response to whether stock splits bear valuation implications. While stock splits theoretically serve merely to alter the quantity of shares purchasable with a set investment, they effectively reduce the entry barrier for investment and signal the firm's optimism regarding its future prospects. It is essential, therefore, to explore the market's reception to such actions through an analysis focused on variations in cumulative abnormal returns over a specified period. What's more, this investigation adopts a time-series analysis approach, scrutinizing the change in cumulative abnormal returns to deduce the market's reaction to stock splits. A positive alteration in these returns within the observed timeframe would suggest a favorable market response, whereas a lack of change would indicate indifference. Additionally, this study distinguishes the effects of stock splits from dividend modifications to enhance the precision of its findings. Addressing the nuanced question of the factors influencing stock splits necessitates identifying the market's reactions and their origins. To this end, we introduce two key variables: 'FACPR' (split factor) and 'PRCAFT' (post-announcement stock performance), initiating our analysis with simple one-variable regressions. This methodological framework is systematically expanded to encompass a broader set of variables, culminating in a comprehensive multiple linear regression model. This progression aims to dissect the stock split impact with increasing depth and accuracy. Further, we explore potential non-linearities within the established regression model, examining variables that might influence such dynamics. Understanding the determinants is crucial but not sufficient. We revisit the inception of the decision-making process regarding stock splits, questioning whether the market possesses the requisite credentials to influence such corporate decisions. This inquiry culminates in the exploration of the likelihood of a firm's decision to enact a stock split, employing logistic regression analysis to

assess the impact of various factors. This final step not only calculates the probability of a company opting for a stock split under given conditions but also provides a concise analysis of these findings.

2. Hypothesis Developmen

2.1. Motivation for Stock Splits

Exploring the strategic rationale behind stock splits, it is recognized that such actions facilitate a lower trading threshold, thus potentially broadening the investor base. Nonetheless, an analysis of market dynamics in response to stock splits necessitates a dual focus. On one hand, we examine the immediate market reaction to the split; on the other, we delve into the implicit messages conveyed by the issuing company. Historically, a stock split was interpreted as a manifestation of the company management's confidence in its future business prospects. This study aims to scrutinize such assumptions by analyzing short-term and cumulative abnormal returns post-split. In the context of an efficient capital market, stock prices are expected to quickly incorporate new information. Consequently, the anticipatory adjustments in valuation following a stock split should be reflected. This research emphasizes the examination of abnormal returns—not as indicators of underlying business conditions but as reflections of the unique event of a stock split, deviating from routine market activities. Abnormal returns are thus considered relative to the gains an investor would achieve through market-wide investment, isolating the effect of the stock split. To substantiate this analysis, an empirical study focusing on the Indonesian stock market is referenced, employing the Capital Asset Pricing Model (CAPM) to assess cumulative abnormal returns surrounding stock split events. The findings are pivotal; if stock splits indeed serve as a forward-looking signal by management regarding the company's performance, the hypothesis encounters challenges. Specifically, the empirical evidence indicates no significant impact, suggesting that the perceived communicative value of stock splits regarding future company performance may not hold empirical ground.

2.2. Market Reaction to Stock Splits

Understanding the market's response to a stock split represents a critical aspect of analyzing its implications. The sustainability of the impact initiated by a stock split, alongside the duration of its prominence in public discourse, are pertinent questions that merit examination. Juan C. Reboredo's 2003 study offers insightful empirical analysis into the consequences of stock splits on stock prices, returns, volatility, and trading volume, focusing on a cohort of stock splits in the Spanish market during 1998-1999. Reboredo's research provides a robust empirical foundation, utilizing daily data to elucidate the tangible effects of stock splits. A noteworthy finding is the significant decline in stock prices subsequent to the split, with the magnitude of the decline being contingent upon the split's size. This outcome prompts a reconsideration of brokers' initially optimistic projections regarding future firm performance, leading to the refutation of the signaling hypothesis. Contrary to the suggestion that stock splits convey positive forecasts to the market, Reboredo posits that the market's reaction ought not to be favorable, given the potential detriment to shareholder profits.

2.3. Market Effectiveness

Acknowledging the market as the principal arbiter of feedback necessitates a nuanced understanding of how the broader market context influences reactions to stock splitting activities. This consideration dovetails with discussions in the "Motivation for Stock Split" section, where the Indonesian market's tepid response to stock splits was noted. This outcome raises an intriguing question: does the market's apparent indifference stem from specific aspects of the Indonesian market environment? To address this query, a comparative analysis with a more systematized market, such as New York, provides valuable insights into the dynamics at play. The concept of market effectiveness serves as a lens through which we can examine whether variations in market responses to stock splits are attributable to differences in market efficiency. A case study of the New York market reveals an unexpected pattern post-split: an immediate investigation into the effect of stock splits on trading volume,

alongside an extended analysis within an 81-day event window, showed a decline in trading liquidity. This finding challenges the conventional expectation that stock splits invariably heighten investor interest and market participation.

2.4. Company Considerations

Determining the catalysts behind a company's decision to undertake a stock split involves dissecting both the internal and external landscapes within which a firm operates. This analysis spans market conditions, investor sentiment, and the overall willingness to invest. An intriguing perspective introduced in the examined literature is the influence of the "business cycle" on such decisions, framing these determinants within two cycles and one prevailing trend: the bull-bear market cycle, the macroeconomic business cycle, and prevailing investor attitudes. The findings highlight a clear propensity for firms to initiate stock splits during bull markets as opposed to bear markets, with the impact of these announcements on abnormal returns being significantly more pronounced in the former, especially under conditions of positive and elevated investor sentiment. Moreover, companies are more inclined to announce splits during periods of economic expansion rather than contraction. However, this inclination does not imply inactivity during downturns; on the contrary, firms that showcase earnings growth and possess confidence in their sustained performance are also likely to execute stock splits during recessionary periods, often achieving superior performance compared to their counterparts in expansion phases. Notably, while the broader economic and market context exerts a substantial influence on the timing and reception of stock splits, the most decisive factors are inherently linked to the companies themselves. The analysis underscores the predominance of business cycle effects in determining the overall volume of stock split activity. Nonetheless, market conditions and investor sentiment are instrumental in shaping the patterns of announcement clustering and the returns that follow. In sum, the primary impetus for firms to announce stock splits is intricately tied to the economic backdrop.

3. Data, Methodology, and Fully Analysis

This section elaborates on the data sources, analytical methodology, and comprehensive analysis underpinning the investigation into stock splits. The study bifurcates its focus between assessing market reactions to stock splits and identifying the critical factors influencing a company's decision to undertake such actions. The empirical analysis leverages statistical results generated via SAS software, with data sourced from Professor Leo and the WRDS (Wharton Research Data Services) database.

3.1. Valuation Implications

An event study methodology is employed to scrutinize the market's response to stock split announcements. This approach is instrumental in isolating and evaluating the impact of stock splits on company valuation as reflected through market-adjusted returns. The analysis spans an 11-day window centered around the announcement date to capture immediate market reactions. Figure 1 provides summary statistics for market-adjusted returns within this 11-day period, offering a preliminary insight into the market's initial reaction; Figure 2 delves into the cumulative abnormal return (CAR) from day 0 to day +1, spotlighting the immediate aftermath of the announcement; Figure 3 extends the analysis to cover CAR from day +2 to +5, providing a broader view of the market's adjustment process post-announcement; Figure 4 presents the average cumulative abnormal returns, tracing back to day -5 and extending beyond the announcement, thus furnishing a comprehensive overview of market behavior in the vicinity of stock split events.

We rigorously test the market's reaction to stock split announcements, focusing on the null hypothesis that posits no significant reactions occur. More precisely, we frame our alternative hypothesis to assess if the abnormal return significantly deviates from zero on the announcement day:

H_0:E[Abnormal return t=0]=0

H_2:E[Abnormal return t=0]≠0

	All sample			Sample with DIVUP=0 and DIVDOWN=0		
Day	n	Average AR	t-stat	n	Average AR	t-stat
-5	1283	-0.000473	-0.54860	1100	-0.000465	-0.47012
-4	1283	0.001711	1.75716	1100	0.001889	1.69892
-3	1283	0.001208	1.07155	1100	0.001474	1.13937
-2	1283	0.000690	0.77700	1100	0.000807	0.80205
-1	1283	0.000607	0.67033	1100	0.000509	0.49376
0	1283	0.011192	9.14414	1100	0.010740	7.90830
1	1283	0.008842	6.76853	1100	0.008066	5.54102
2	1283	0.000930	0.93451	1100	0.000702	0.62329
3	1283	-0.000099	-0.10590	1100	-0.000755	-0.70758
4	1283	-0.001859	-1.95241	1100	-0.001461	-1.35057
5	1283	-0.001736	-1.79815	1100	-0.002074	-1.86595

Figure 1. Abnormal returns around announcement of stock splits

Figure 1 showcases the results for this hypothesis test. The average abnormal return on the announcement day stands at 1.1193%, with at-statistic of 9.144. Given that t> 1.96, we decisively reject the null hypothesis at a 5% significance level, indicating a significant positive market reaction. Employing a one-tailed alternative hypothesis further supports the rejection of the null, as t> 1.65. Considering that stock splits may be announced after trading hours, we also explore the reaction on the following day (t=+1) with the hypothesis:

H_0:E[Abnormal return t=1]=0

Ha:E[Abnormal return t=1]≠0

The null hypothesis is similarly rejected for day +1, where average market reactions are 0.8842%, and the t-statistic is 6.769.

Sample	Average $CAR_{[0,+1]}$	t	n
All	0.020034	10.9432	1283
No dividend announcement	0.018805	9.22797	1100

Figure 2. Average cumulative abnormal return over [0, +1]

To fully understand the impact of stock split announcements, the cumulative returns over days t=0 through t=+1 were aggregated and subjected to a t-test. The findings, depicted in Figure 2, reveal an average cumulative return of 2.0034%, accompanied by a t-statistic of 10.943. This analysis provides a quantifiable measure of the announcement's overall effect on the market. Further, to assess market efficiency post-announcement, we explore the average cumulative abnormal returns spanning from day +2 to day +5, framed by the following hypotheses:

H_0:E[Abnormal return t=2 thru t=5]=0

Ha:E[Abnormal return t=2 thru t=5]≠0

Figure 3 reports an average cumulative return of -0.276% with a t-statistic of -1.392. Given the significance level of 5%, the null hypothesis is not rejected, indicating no substantial market reactions following the announcement period.

Sample	Average CAR [+0, +1]	t	n
All	-.002764267	-1.39233	1283
No dividend announcement	-.003589447	-1.59008	1100

Figure 3. Average cumulative abnormal return over [+2, +5]

Figure 4 visually encapsulates the findings discussed: an initial sharp positive response to the announcement, followed by a relatively stable pattern in cumulative abnormal returns in the subsequent days.

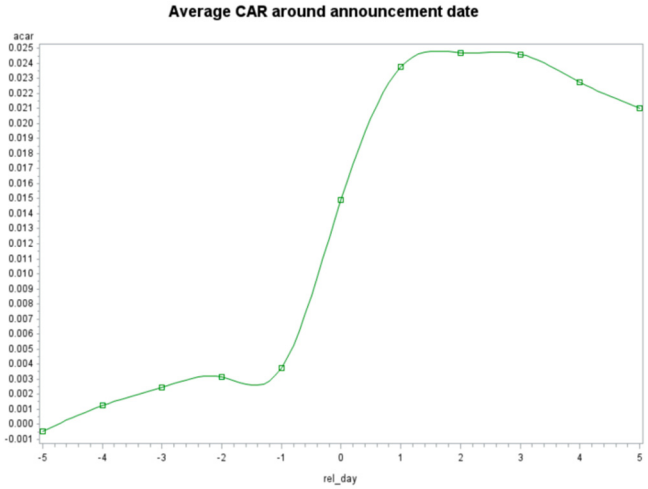

Figure 4. Cumulative abnormal returns around announcement of apgrade to buy

The study then shifts focus to a second event analysis concerning stock splits not accompanied by dividend increases or decreases. This segmentation revealed similarly significant positive reactions immediately following the stock split announcements (t-stat=7.908). Aggregating reactions from day 0 to day+1 yields an average reaction of 1.8805% (t-stat=9.227). However, examining the average cumulative abnormal returns from day +2 through day+5 once again shows no post-announcement market reactions, with a t-statistic of -1.59, mirroring the outcomes of the initial event study.

3.2. More on Valuation Implications

First, we explore the connection between the magnitude of a stock split announcement and subsequent market reactions. Figure 5 shows the results of the regression model CAR; Fβo+ βLPRCAFT+E.

Model	Intercept	LPRCAFT	Obs	Adj-R^2
1	0.08395	-0.01852	1283	2.18%
	[7.07]	[-5.44]		

Figure 5. Simple regression results

We then formally test the hypothesis:

$H_0: \beta_1 = 0$

$H_a: \beta_1 \neq 0$

The t-statistic, as presented in Figure 5, is -5.44, corresponding to a p-value of 0.0001, allowing us to reject the null hypothesis. This indicates a significant relationship between LPRCAFT and CAR. Specifically, the model estimates that for each one-unit increase in the natural logarithm of the share price resulting from the stock split, there is a corresponding decrease of 0.0185 in the abnormal return on the announcement day. Additionally, we consider several control variables in our analysis: SIZE, represented by the natural logarithm of the company's total assets; BETA, denoting the stock's beta; PASTPERF, reflecting the firm's recent performance; and DIVUP, indicating announcements of dividend increases. Figure 6 provides statistics for the measures used in this study. Out of 1286 stock split announcements identified, only 816 are utilized in the regression due to data availability on total assets. The average market reaction to these announcements, as gauged by the cumulative market-adjusted return over the [0, +1] window, is approximately 2.003%. However, market reactions to stock split announcements have been observed to vary widely, reaching as high as 65.48% and as low as -32.49%.

Variable	N	Mean	Std Dev	Minimum	Maximum
CAR	1283	0.0200342	0.0655753	-0.3249454	0.6548173
LPRCAFT	1283	3.4511057	0.5323566	1.2434339	5.3846384
BETA	1286	0.9813300	0.7398678	-4.8669954	4.5650397
SIZE	816	7.0532144	2.0763488	1.2524772	13.6061540
PASTPERF	1283	0.0034125	0.0041636	-0.0051621	0.0316153

Variable	N	Mean	Std Dev	Minimum	Maximum
DIVUP	1286	0.1353033	0.3421803	0	1.0000000

Figure 6. Summary statistics

The average natural logarithm of the share price following the stock split stands at 3.451. Additionally, it's noteworthy that 13.53% of stock split announcements coincided with announcements of dividend increases.

	CAR	LPRCAFT	BETA	SIZE	PASTPERF	DIVUP
CAR	1					
LPRCAFT	-0.15035 <.0001	1				
BETA	0.01676 0.5485	0.39743 <.0001	1			
SIZE	-0.226 <.0001	0.26503 <.0001	-0.03313 0.3445	1		
PASTPERF	0.10911 <.0001	0.25154 <.0001	0.22981 <.0001	-0.42462 <.0001	1	
DIVUP	0.04704 0.0921	0.064 0.0219	-0.04151 0.1368	0.23471 <.0001	-0.14373 <.0001	1

Figure 7. Correlation table

Figure 7 presents the correlation table, highlighting a strong correlation between CAR and LPRCAFT, as well as between CAR and SIZE. Additionally, the firm's recent performance shows a significant correlation with CAR. The primary explanatory variable, LPRCAFT, is also significantly correlated with several other explanatory variables, indicating a potential for omitted variable bias if the analysis solely focuses on the relationship between market reaction and share price adjustment. Following these insights, we proceed to execute the regression model:

$$CAR_1=\beta_0+\beta_1 LPRCAFT+\beta_2 SIZE;+\beta_3 BETA;+\beta_4 PASTPERF+\beta_5 DIVUP_1+\varepsilon;$$

Intercept	LPRCAFT	BETA	SIZE	PASTPERF	DIVUP	Obs	Adj-R^2
0.11253	-0.02111	0.00547	-0.00493	1.85823	0.02057	816	7.36
7.41	-3.96	1.35	-3.67	2.74	3.20		

Figure 8. Multiple regression results

Figure 8 encapsulates the comprehensive results of the regression analysis. Initially, the F-value of 13.94 indicates a highly significant relationship between the explanatory variables and the dependent variable Y (cumulative abnormal returns), with a p-value less than 0.001. This strong significance allows us to confidently reject the null hypothesis that all explanatory variables are unrelated to Y at the 5% significance level.

Upon examining the t-values for individual variables: LPRCAFT: The coefficient for LPRCAFT is significantly negative (t-stat=-3.96, p-value < 0.0001), which refutes the null hypothesis of no relationship between the change in the natural logarithm of the share price and market reactions. Each unit increase in LPRCAFT is associated with a 2.111% decrease in cumulative abnormal returns around the announcement; Firm Size: The coefficient for firm size is also significantly negative (t-stat=-3.67, p-value < 0.0001), dismissing the null hypothesis of no connection between firm size and market reactions. A one-unit increase in firm size translates to a 0.493% reduction in reactions to stock splits, considering the logarithmic specification of the model; Past Performance: The coefficient for the firm's past performance is significantly positive (t-stat=2.74, p-value=0.0063). This indicates that, all else being equal, a one-unit increase in past performance is linked to an 185.8% increase in cumulative abnormal returns around the announcement; Dividend Increase Announcement: The presence of a dividend increase announcement is significant (estimated coefficient=0.02057), suggesting such announcements are correlated with a 2.057% increase in cumulative abnormal returns around the earnings announcement, compared to situations where no dividend increase is announced.

Despite the insights garnered from the regression model, the beta of the company's stock does not exhibit a significant relationship with market reactions to the announcement, as indicated by a t-statistic of 1.35 and a p-value of 0.1775. This suggests that the volatility of the stock relative to the market does not significantly influence the market's response to stock split announcements. The adjusted R^2 of the model, as reported in Figure 8, reveals that the multiple regression model accounts for 7.36% of the variance in market reactions to stock split announcements.

The implementation of a formal White test leads to the rejection of the null hypothesis of homoscedasticity, with a significant p-value of less than 0.0001, indicating the presence of heteroscedasticity in the model. In response, the regression is rerun incorporating White's heteroscedasticity-consistent standard errors, with results showcased in Figure 9. Adjustments for heteroscedasticity yield slight variations in t-statistics from the baseline analysis. Notably, the revised analysis alters the interpretation regarding the firm's past performance; once heteroscedasticity is accounted for, the firm's past performance no longer shows a significant relation to market reactions, in contrast to the initial findings. However, the conclusions drawn for other variables concerning their impact on market reactions remain consistent and significant at the 5% level, aside from the adjustment in the interpretation of the firm's past performance.

Model	Intercept	LPRCAFT	BETA	SIZE	PASTPERF	DIVUP
Original	0.11253	-0.02111	0.00547	-0.00493	1.85823	0.02057
	[7.41]	[-3.96]	[1.35]	[-3.67]	[2.74]	[3.20]
Adjusted for	0.11253	-0.02111	0.00547	-0.00493	1.85823	0.02057
Heteroscedasticity	[5.72]	[-3.29]	[1.14]	[-3.51]	[1.44]	[4.25]

Figure 9. Basic results vs. results with heteroscedasticity-consistent standard errors

To investigate potential nonlinearity in our analysis, we revisited the regression model, this time integrating an interaction term between LPRCAFT and PASTPERF. This model adjustment, aimed at probing the combined effects of the price adjustment factor and the firm's past performance on market reactions, adheres to the utilization of White's heteroscedasticity-consistent standard errors to maintain robustness. The outcomes of this nuanced approach are meticulously detailed in Figure 10.

Intercept	LPRCAFT	BETA	SIZE	PASTPERF	DIVUP	LPRCAFT_PASTPERF
0.08360	-0.01289	0.0064	-0.00496	8.32926	0.01964	-1.76450
[3.58]	[-1.71]	[1.34]	[-3.53]	[1.72]	[3.87]	[-1.35]

Figure 10. Results after including interaction term with heteroscedasticity-consistent standard errors

Given a t-statistic of -1.35 for the interaction term between LPRCAFT and PASTPERF, and considering the significance level of 5%, we are unable to reject the null hypothesis that the coefficient of this interaction term is zero. This outcome suggests that the influence of LPRCAFT on market reactions does not significantly vary based on PASTPERF.

3.3. Determinants of the Decision to Split a Stock

In exploring the factors influencing a company's decision to enact a stock split, we commence with examining univariate statistics to discern preliminary trends. According to Figure 11, the likelihood of a company announcing a stock split appears positively correlated with its recent performance (PERF). Specifically, firms that proceed with stock splits exhibit an average daily stock return of 0.20799%, in stark contrast to the 0.10982% return observed for firms that do not engage in stock splitting. Additionally, companies that announce stock splits tend to have a higher share price (LPRC), larger size (CSIZE), and greater longevity (AGE), with each of these differences being statistically significant at the 5% level, with the exception of company age (AGE), which does not show a significant difference in this context.

Var	Split=0			Split=1			Diff mean?
	N	Mean	p-value	N	Mean	p-value	p-value
PERF	1194	0.0010982	<0.0001	1116	0.0020799	<0.0001	<0.0001
LPRC	1149	2.5378764	<0.0001	1094	3.6664460	<0.0001	<0.0001
CSIZE	863	5.9180624	<0.0001	791	6.7778427	<0.0001	<0.0001
AGE	1214	16.1202636	<0.0001	1181	17.1202371	<0.0001	0.1167

Figure 11. Summary statistics

The findings depicted in Figure 11 indicate that many potential factors are significantly associated with the decision to announce a stock split. Given the relevance of these variables, it's important to include them in any model that aims to predict the likelihood of a company deciding to split its stock. Accordingly, we conducted a logistic regression analysis to more accurately model this probability, taking into account these identified determinants. The results of this logistic regression are detailed in Figure 12.

Intercept	PERF	LPRC	CSIZE	AGE
-4.3629	41.3218	1.7537	-0.2001	-0.00573
(<0.0001)	(0.0388)	(<0.0001)	(<0.0001)	(0.1512)

Figure 12. Logistic regression results

The logistic regression analysis outcomes corroborate the preliminary insights drawn from the univariate statistics shown in Figure 11. Significant coefficients at the 5% level are observed for recent performance (PERF), share price (LPRC), and company size (CSIZE), thereby validating their influence on the likelihood of a stock split announcement. Conversely, company age (AGE) is found to have no significant predictive power regarding stock split announcements.

Delving into the specifics:

Recent Performance (PERF): The coefficient for PERF is 41.3218. Applying a marginal increase of 0.001 in recent performance yields an odds ratio of exp(41.3218 * 0.001) = 1.512. This suggests that a 0.001 increase in recent performance, holding other factors constant, is associated with a 51.2% increase in the odds of announcing a stock split.

Share Price (LPRC): With LPRC in natural logarithm form, doubling the share price leads to a change of log(2) = 0.6931. The corresponding odds ratio is exp(1.7537 * 0.6931) = 3.372, indicating a 237.2% increase in the odds of a stock split announcement when the share price doubles, other variables being constant.

Company Size (CSIZE): Also measured in logarithmic form, doubling company size results in a CSIZE change of log(2) = 0.6931. The effect is an odds ratio of exp(-0.2001 * 0.6931) = 0.87, translating to a 13% decrease in the odds of announcing a stock split when the company size doubles, with other factors held constant.

Company Age (AGE): The coefficient for AGE produces an odds ratio of exp(-0.00573) = 0.994, indicating that each additional year of company age is associated with a 0.6% decrease in the odds of announcing a stock split, although this is not statistically significant (p-value > 0.05).

Utilizing the model to calculate the predicted probability of a stock split for a hypothetical company with a share price (PRC) of 40, total assets (AT) of 20,000, a recent performance (PERF) of 0.001, and an age (AGE) of 20 years, yields a predicted probability of 51.28%. This probability illustrates how these variables collectively influence the likelihood of a company deciding to announce a stock split.

4. Summarizing Statements and Conclusion

Our analysis spans three distinct sections, aiming to synthesize the market's response to stock splits and identify the factors precipitating a company's decision to undertake such actions. The investigation reveals nuanced insights into both market reactions and corporate motivations behind stock splits.

Market Reaction to Stock Splits: The study observes a pronounced immediate market reaction to stock split announcements (days [0, 1]), marked by significant cumulative abnormal returns. This reaction supports the rejection of the initial hypothesis positing no market response. Notably, this

pattern persists across various samples, including those excluding firms with concurrent dividend announcements. However, the market's responsiveness fades in the subsequent period (days [2, 5]), aligning with the hypothesis of no extended market reaction post-announcement. Furthermore, the influence of dividend distributions on market reactions to stock splits is deemed insignificant within the sampled population.

Strength of Stock Split Announcements: Initial findings underscore a robust correlation between the adjusted stock price post-split (LPRCAFT) and cumulative abnormal returns, suggesting the market perceives the announcement's strength favorably. Extended analysis incorporating broader variables indicates significant correlations, notably between cumulative abnormal returns and both LPRCAFT and company size (CSIZE). Yet, the company's stock beta shows no substantial impact on market reactions. Adjustments for detected heteroskedasticity and the examination of potential nonlinearities, specifically through adding the LPRCAFT*PASTPERF interaction term, refine our model without altering the core conclusion: the market's response to LPRCAFT is independent of the firm's past performance.

Determinants of Stock Split Decisions: The logistic regression analysis sheds light on several key determinants influencing the decision to announce a stock split. Noteworthy is the significant impact of recent performance (PERF), with even a minor increase markedly elevating the likelihood of a stock split. Conversely, an increase in company size (CSIZE) slightly reduces this likelihood. The analysis also highlights the significant role of the natural logarithm of the share price (LPRC), where an increase substantially raises the probability of a split. However, an incremental rise in firm age (AGE) marginally lowers the chances of a stock split. Employing these variables, the model predicts a 51.28% likelihood of a stock split under specific conditions.

This summary elucidates the complex dynamics between market responses to stock split announcements and the strategic considerations driving companies to split their shares, offering a comprehensive overview of the interplay between market signals and corporate decision-making processes.

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