MARKETING SCIENCE INSTITUTE

Reports

2009

WORKING PAPER SERIES

ISSUE ONE

NO. 09-001

MARKETING SCIENCE INSTITUTE

MSI Reports

2009

WORKING PAPER SERIES

ISSUE ONE

NO. 09-001

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The Effect of Brand Acquisition and Disposal on Stock Returns

Michael A. Wiles, Neil A. Morgan, and Lopo L. Rego

How do brand acquisitions and disposals affect shareholder value? This study examines investor reactions to hundreds of acquisitions and disposals of brand assets by firms in nine U.S. consumer markets. For marketing executives, the findings shed new light on the value of brand assets.

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Report Summary

Although larger firms operating in consumer markets generally manage portfolios of multiple brands and make corporate-level investment decisions regarding portfolio additions and subtractions via brand acquisition and disposal, little is known about how such acquisitions and disposals affect shareholder value. This is surprising, given the importance of brands in marketing theory explanations of firm performance, and the fact that acquisitions of existing brands are among the largest marketing investments firms ever make.

Using an event study methodology, the authors examine stock market reactions to hundreds of brand acquisition and disposal announcements made by 49 firms operating in nine different consumer markets in the U.S. Their analysis covers 232 separate brand acquisitions and 163 brand disposals from 1994 to 2006.

On the sell side, their results indicate that firms disposing of brand assets enjoy abnormal stock returns, suggesting that investors react positively to the sale of brand assets. Although this outcome may seem counterintuitive, it is consistent with strategic-factor market theory in strategic management and price systems theory in economics. That is, the seller firm is rewarded because another firm (the buyer) believes (rightly or wrongly) that the brand will create more value for them. The authors also find that the returns to the sale of a brand are even more positive when selling noncore business brands, larger brands, and when the firm achieves a higher price for the brand asset than anticipated.

On the buy side, the authors find no evidence of abnormal returns to brand acquisitions; investors neither reward nor punish firms for buying brand assets. This finding is consistent with the notion that the buy-side market for brand assets is generally efficient, and it supports brand valuation approaches based on brand earnings multiples derived from prices paid in brand acquisitions. However, the authors also find evidence that investors may reward firms for purchasing brands under some conditions, such as when the buying firm has strong marketing capabilities and/or the acquired brand brings new distribution resources to the buying firm. Investors are also more likely to reward brand acquisitions that are in the same (or closely related) markets as those in which the buying firm already operates. Investors are more likely to punish brand acquisitions when the acquisitions are large in value compared with the firm's overall value. ■

Introduction

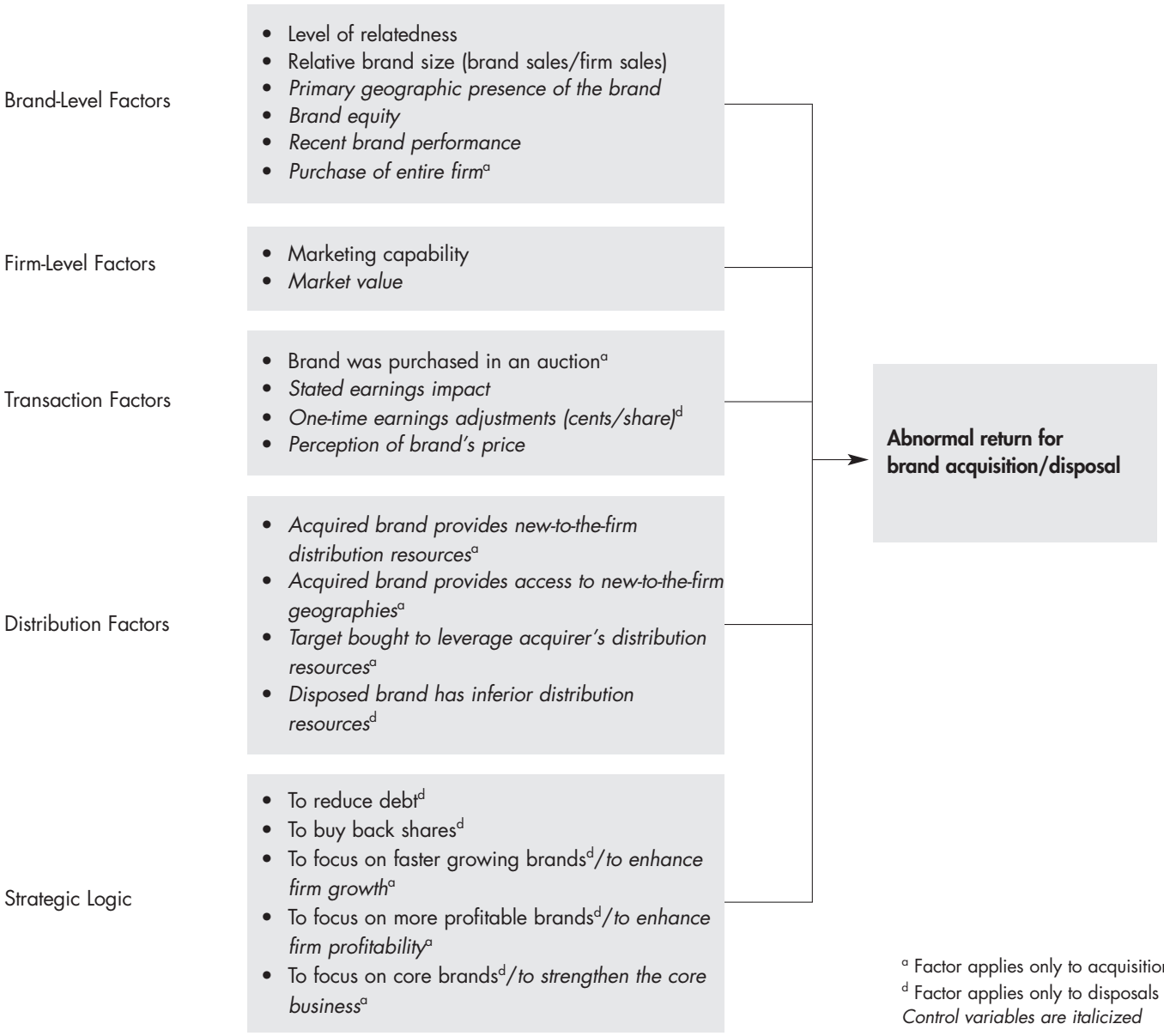
In seeking to better understand the relationship between marketing and firm performance, a fundamental question is what effect strategic marketing investments have on shareholder wealth (Day and Fahey 1988; Rust et al. 2004). A firm's market value reflects the discounted value of the firm's expected future cash flows (e.g., Rappaport 1997). Marketing activities that affect channels of distribution and consumers in ways that impact the firm's cash flows should therefore affect shareholder value (e.g., Gruca and Rego 2005). The marketing–finance literature provides a well-developed theoretical rationale for how market-based assets such as brands can impact firms' market value by increasing cash flow levels, accelerating cash flows, decreasing risks to cash flows, and increasing the firm's residual value (Srivastava, Shervani, and Fahey 1998). These conjectures are supported by a growing body of empirical evidence (e.g., Barth et al. 1998; Kerin and Sethuraman 1998; Madden, Fehle, and Fournier 2006; Rao, Agarwal, and Dahlhoff 2004) linking brands with competitive advantage for the firms that own them. As a result, it is increasingly widely accepted that brands are important intangible assets that can significantly contribute to firm performance and shareholder value (e.g., Ailawadi, Lehman, and Neslin 2001; Keller and Lehman 2006; Sullivan 1998).

Most firms operating in consumer markets have a portfolio comprising multiple brands (e.g., Aaker 2004; Hill, Ettenson, and Tyson 2005; Morgan and Rego 2006). In managing these portfolios, firms often buy or sell brands (e.g., Capron and Hulland 1999; Laforet and Saunders 2005). For example, in 2000, Unilever embarked on a brand portfolio trimming strategy, and by 2003, it had sold off several hundred brands, including well-known brands such as Elizabeth Arden perfumes and Golden Griddle syrup. Similarly, over the past eight years, Procter & Gamble has disposed of more than 1,000 brands. At the same time, other firms have aggressively grown their brand portfolios through brand acquisitions. For example, following a corporate strategy shift in 2000, ConAgra has built a portfolio of 48 major brands, only three of which were developed in-house. Similarly, Nestlé has purchased a large number of brand assets over the past decade. However, in spite of an active market in brand assets, we have little understanding of this important phenomenon (Bahadir, Bharadwaj, and Srivastava 2008). In particular, little is known about whether and how firms benefit from buying and/or selling their brand assets (e.g., Varadarajan, DeFanti, and Busch 2006).

In this study, we tackle this significant knowledge gap by addressing three questions that are of particular theoretical importance and managerial relevance. First, do firms enhance their performance by purchasing brands from others? Second, if brands are valuable market-based assets, will investors reward or punish firms that dispose of brand assets? Third, can we identify brand, firm, transaction, and strategic factors that significantly affect the returns to buying and selling brands? Figure 1 outlines the broad research framework we adopt in addressing these questions.

This study contributes a number of new insights to the emerging marketing–finance literature. More specifically, we provide clear evidence that investors react to the disposal of brands and show that stock prices are informed with regard to the disposal of brand assets. We also uncover an interesting asymmetry in how investors appear to value complementary marketing resources (brands and channel relationships). In addition, we find no evidence to suggest that the buy-side strategic-factor market for brands is inefficient, thus providing support for brand valuation approaches that apply multiples based on brand asset acquisition/disposal prices to brand cash flows (e.g., Interbrand). We also provide new insights regarding the relationship between marketing spending and firm value.

Figure 1
Outline Research Model



Specifically, we offer evidence that some of the biggest single marketing investments firms ever make—the purchase of an existing brand—generally do not produce abnormal stock returns, but we also identify some conditions in which they can.

Theory Framework

The marketing strategy literature linking brand assets with firm performance draws primarily on the resource-based view of the firm (RBV). From this perspective, strong brands are rare and nonsubstitutable assets that allow firms to conceive and execute inimitable value-

creating strategies (e.g., Barney 1991). An important but often overlooked foundation of RBV explanations of firm performance is the existence of strategic-factor markets (e.g., Chi 1994; Dierickx and Cool 1989). Strategic-factor markets exist when firms acquire the resources required to implement a particular strategy (Makadok and Barney 2001). The extent to which these strategic-factor markets are competitive (i.e., efficient) will affect the likely returns to any strategy that is implemented using acquired resources, because competitive markets value those resources in ways that reflect the discounted present value of cash flows that will accrue from implementing the strategy for which they are acquired (e.g., Barney 1986; Woolridge and Snow 1990). This is consistent with price systems theory in economics, which posits that even when knowledge about the value of a resource in all potential uses does not exist (as is usually the case in strategic-factor markets), prices that emerge from a competitive equilibrium will reflect the value of a resource in its best use (Koopmans 1957).

The strategic management literature indicates three key elements that impact the existence and relative efficiency of strategic-factor markets. First, consistent with models of perfect competition, the existence of an efficient market implies multiple buyers and/or sellers of the strategic factor. This allows bargaining to occur and ensures that the price mechanism reflects the value of the strategic factor. Second, the availability and equivalence of information about the strategic factor's value in use is an important determinant of strategic-factor market efficiency. Perfectly competitive strategic-factor markets require all parties (all potential buyers and the seller) to have perfect information regarding the strategic factor and its expected value in all possible uses. Third, the existence of heterogeneous resources and capabilities among firms and the relationship between these idiosyncratic firm resources and capabilities and the strategic factor under consideration has a significant effect on strategic-factor market efficiency. Strategic-factor markets are perfectly competitive when all buyers and sellers have equivalent resources and capabilities that are equally related to the productive use of the strategic factor.

From this perspective, if strategic-factor markets are efficient, then the full value of the strategies they enable will be reflected in the price paid for the resource(s), and firms will not be able to obtain abnormal returns from strategies executed using acquired resources (Barney 1986). Views on the existence and efficiency of strategic-factor markets vary in the strategic management literature (Lippman and Rumelt 2003). For example, Barney (1986) maintains that reasonably competitive (albeit imperfect) markets for strategic resources exist and that a firm can therefore benefit from strategic-resource acquisition only by being better informed about the future value of strategies requiring the resource in question for their implementation. The more accurate the expectations of the future value of strategies that can be executed using the resource in question, the more likely the firm is to avoid overpaying (winners' curse) and to be able to spot undervalued resources (bargains) (Makadok and Barney 2001). In contrast, Denrell, Fang, and Winter (2003) argue that while this logic may be correct, most complex resources are so idiosyncratic that they make accurate valuation difficult, if not impossible, and "imply thin, highly imperfect markets for strategic resources when indeed there are markets at all" (p. 980).

Irrespective of these different viewpoints on how efficient strategic-factor markets are in general, RBV theory suggests that firms should be able to benefit from buying and selling resources only when they can create or exploit imperfections in the relevant strategic-factor market (Barney 1986). Two types of imperfection that firms may create and/or exploit that have received attention in the theoretical literature are information asymmetry and idiosyncratic asset complementarities. In a

strategic-factor market, there may be information asymmetry between a buyer and a seller or among buyers regarding the value in use of the strategic factor (e.g., Barney 1986; 1989; Lippman and Rumelt 2003). Asset complementarities involve the idiosyncratic preexisting resources and capabilities of a firm that affect the value in use of a strategic factor, leading to different valuations between firms for the same strategic factor (e.g., Chi 1994; Makadok 2001). Barney (1988) describes this in an acquisition context as "when a target is worth more to one bidder than it is to any other bidders" (p. 74).

These insights from strategic-factor market theory suggest that firms should benefit from buying and selling brands only when the market for brands is (or can be made) inefficient. Further, strategic-factor market theory indicates that (a) information advantages affecting the accuracy with which buyers and sellers can forecast the value in use of brands and (b) idiosyncratic firm resources and capabilities that are complementary to the brand and affect the brand's value in use are likely to be key determinants of whether or not firms benefit from the acquisition and disposal of brands. Below, we detail how these two factors may be expected to impact the returns to buying and selling brand assets.

Hypotheses

Most of the strategic-factor market literature focuses on conditions under which buyers may be able to generate abnormal returns from acquiring a resource. There are four factors that may be viewed as particularly important in determining the extent to which a firm can enjoy superior performance as a result of purchasing a brand.

First, information asymmetries between the buyer and the seller and/or between buyers that affect the accuracy of the valuation of the brand in use can create factor market inefficiencies that can be exploited (Lippman and Rumelt 2003). From a buyers' perspective, superior knowledge of the value of the firm's own stock of complementary resources and capabilities, may allow "resource picking" whereby a brand may be purchased at a price below that of the brand's productive value in use to the buyer (Makadok 2001). However, as the brand's owner, the seller has been able to observe the brand in use in conjunction with its other resources and capabilities, while prospective brand acquirers have not had this opportunity. Under most conditions the seller of a brand will therefore have a systematic information advantage over potential buyers regarding the likely future value of the brand to the seller. Thus, applying strategic-factor market theory to the market for brands suggests that, absent luck (which is by definition not systematic) a buyer should not gain any positive abnormal returns from purchasing a brand (Barney 1986; Denrell, Fang, and Winter 2003).

Second, asymmetries in complementary assets between the buyer and the seller and/or between buyers can also affect the accuracy with which the expected value in use of the brand can be forecast, creating strategic-factor market inefficiency (Barney 1986; Conner 1991). Marketing capabilities such as brand management and distribution systems, for example, are complementary assets that may enhance the value in use of brands (e.g., Amit and Shoemaker 1993). Such complementary assets are difficult to observe, nontradable, and are the result of firms' idiosyncratic investments in different activities over time (Barney 1989; Dierickx and Cool 1989). Complementary marketing capabilities cannot therefore simply be acquired by other potential bidders for the brand in question. Makadok (2001) shows analytically how firm-specific complementary capabilities lead potential buyers to have different value expectations of the same acquirable resources.

Third, diversification research in strategic management suggests that firms benefit from diversification only when there is a strong

marketing or technology link between the businesses in which the firm is engaged (e.g., Palich, Cardinal, and Miller 2000). Applying this logic to the acquisition of a brand suggests that the more closely a (nonredundant) brand is related to the buying firm's existing brand portfolio, the more the buying firm should benefit from acquiring the brand. The economic logic for this expectation is that there will be synergies between closely related brands that are not available to unrelated brands (e.g., Barney 1988). For example, purchasing a brand in a category that is similar to that of the firm's existing brands may enable the acquired brand to be sold through the firm's existing distribution channel, producing savings that would not be available if the firm purchased a brand in an unrelated category.

Finally, an important element in efficient markets is a large number of buyers and sellers. As brands are idiosyncratic assets (a characteristic that adds to their value for consumers and therefore for their owners), there are unlikely to be occasions in which there are qualitatively similar brands for sale from multiple sellers in a strategic-factor market. From a buyer's perspective, however, the greatest danger lies in the existence of multiple interested buyers for a single brand asset. In this situation, limited supply and many buyers should lead to competition that will bid up the price of the brand to a level that is equivalent to its highest expected value in use, at which point it becomes impossible for any firm to obtain positive abnormal returns from purchasing the brand. Thus, when there is an auction—that is, when multiple potential buyers are approached to gauge their interest in purchasing the brand—we would expect the ultimate buyer to be less able to enjoy superior performance as a result of the purchase.

More formally, the above arguments suggest that:

H1: Brand acquisitions are associated with firms' abnormal stock returns[1];

H2: Brand acquisitions will be more positively (negatively) associated with firms' abnormal stock returns when:

a. the buying firm has stronger (weaker) marketing capabilities;
b. the acquired brands are more closely (distantly) related to the firm's existing business(es);
c. there is a smaller (larger) number of potential buyers.

Sellers have not been the subject of as much attention as buyers in the strategic-factor market literature. However, strategic-factor market theory suggests four variables that may be important in determining the extent to which a seller firm can enjoy superior returns from disposing of a brand.

First, as outlined above in the context of buying brands, information asymmetries between the buyer and the seller that affect the accuracy with which the expected value of the brand in use can be forecast create an exploitable factor-market inefficiency (Lippman and Rumelt 2003). The "resource-picking" mechanism detailed above suggests that such information asymmetries can also be valuable in enabling the firm to know what assets *not* to invest in as well as those assets that should be acquired (Makadok 2001). However, and as stated previously, the selling firm should have an information advantage relative to any purchaser concerning detailed nonpublic knowledge of the brand and its performance prospects (e.g., Denrell, Fang, and Winter 2003). Perhaps more importantly, the fact that the seller has complete information regarding the brand asset in use as well as knowledge of its existing stock of other resources and capabilities means that the seller is able to assess the value of owning the brand more accurately than firms that may consider purchasing the brand (Makadok and Barney 2001). Thus, sellers of brand assets should systematically have an information advantage relative to buyers. Buyers may sometimes be lucky, but this is not systematic (Barney 1986).

Second, armed with this information advantage, if a firm is willing to sell a brand at a given price, then the brand is believed to have a more valuable alternative "next best use" (Peteraf 1993). That is, managers in another firm (the buying firm) must have (or believe they have) superior resources and capabilities for enhancing brand value, such that they will pay a market price for the brand and not lower their returns by doing so (cf. Barney 1986). By selling the brand, managers in the selling firm also signal to investors that the resources freed up by disposal of the brand in question will deliver a greater return if they are deployed on other brands, projects, activities, etc. (e.g., Carlotti, Coe, and Perry 2004; Varadarajan, DeFanti, and Busch 2006). For example, a firm may dispose of a brand because it believes that the returns from paying down its debt are greater than those of owning the brand—the reason Levi's gave for seeking (unsuccessfully) to sell its Dockers brand.

Third, the brand portfolio literature suggests that reducing the size of a brand portfolio can result in efficiencies that lower costs (e.g., Knudsen et al. 1997; Laforet and Saunders 1999). For example, following its portfolio slimming strategy announcement in 2000 and the selling off of more than 100 businesses and several hundred brands in the following three years, procurement standardization and improved product mix helped Unilever improve its operating margins from 11.2% to close to 15% (Pierce and Moukanas 2002). Any sale of brand assets may increase the efficiency with which the seller firm is able to manage its remaining brand portfolio.

Finally, the diversification literature in strategic management suggests that firms that dispose of brands that are unrelated to their core business should enjoy stronger positive abnormal returns. The intuition is that brands that are unrelated to the firm's core resources and capabilities are unlikely to enjoy any significant synergistic economic benefits (a "parenting advantage") from being owned by the firm (e.g., Campbell, Goold, and Alexander 1995). There is therefore likely to be a higher value in use for the brand in the portfolio of another firm, which should lead to a higher market price being paid for the brand. There should also be higher returns available for the funds generated from the disposal of the brand to the seller firm by investing in other brands, projects, or activities.

More formally, the factors described above suggest that:

H3: Brand disposals are associated with seller firms' abnormal stock returns;

H4: Brand disposals will be more (less) positively associated with firms' abnormal stock returns when:

a. the selling firm has weaker (stronger) marketing capabilities;
b. the selling firm signals (does not signal) that it has identified higher-return investments for the funds generated by the disposal of the brand;
c. the brand(s) sold significantly reduce the size of the selling firm's brand portfolio;
d. the brand(s) sold are more distantly (closely) related to the firm's existing business(es).

Research Method

We use the event study methodology to assess the impact of unexpected information on the firm's stock price. Finance theory asserts that a stock price reflects all public information about the firm, so only unexpected information can change the price of a stock (Fama et al. 1969). Thus, if the new information causes investors to expect that the firm will garner lower (higher) future cash flows, then the firm's stock price drops (rises) in reaction to the new information. The stock's abnormal return—the difference between the stock's actual return and its expected return based on general market movement—is a measure of

the event's effect on the firm's market value. We follow the standard protocols for the short-term event study method[2] and excellent summaries of this method currently exist in the research methodology literature (e.g., Srinivasan and Bharadwaj 2004). When events are confined to a single industry, cross-sectional dependence in the returns biases the standard deviation estimate downward (MacKinlay 1997), inflating the associated test statistics. We control for the potential cross-sectional correlation in the abnormal returns by using the time-series standard deviation test statistic (Brown and Warner 1980).

Sample

For our initial sampling frame, we selected companies from those listed in the American Customer Satisfaction Index (ACSI), for three reasons. First, the ACSI is designed to be representative of the consumer sector of the U.S. economy, and it includes the largest firms in each of 40 different industries (representing 70% or more of the sales in these industries and collectively representing more than 42% of the U.S. GDP), which should minimize generalizability concerns (see Fornell et al. 1996). Second, since consumer spending represents more than 70% of U.S. GDP, and brands occupy a more central role in the business models of consumer-focused companies than they do for business-to-business–focused companies, a sample of large consumer companies is appropriate for the topic of our study. Third, most of the firms in the ACSI are publicly traded, a necessity if we are to assess stock returns, as required in an event study. Our initial data collection efforts focused on nine of the largest industries in the ACSI: apparel, athletic shoes and sportswear, beverages, cigarettes, beer, food/pet food, personal care, quick service restaurants, and hotels. Eliminating private companies resulted in an initial sample of 49 firms (see Appendix 1).[3] Our sample includes all brand acquisitions and disposals for these firms from January 1, 1994, through December 31, 2006.

Our disposal event is the announcement of a sale or a pending sale of a brand, identified through a Factiva search of company news releases and press reports. Our acquisition event is the announcement that an agreement has been reached to acquire a brand. In cases in which earlier press reports mentioned that the firm was negotiating to purchase the brand, the earliest announcement that the firm was negotiating to purchase the brand was considered to be the event. We compiled our list of brand acquisitions and disposals from four sources. First, we searched the SDC Platinum database to construct an initial list of the acquisitions and disposals for each firm. Second, we read the firms' annual reports over the sample period to identify additional brand acquisitions and disposals. Third, we examined all of the firms' press releases and investor relations material posted on their websites. Finally, we also conducted a Factiva search for brand acquisitions and disposals, centering our search on those terms. Brand disposals mandated by government regulators following a company merger or acquisition were not included in our sample.

Overall, the 49 companies in our sample engaged in 454 brand acquisitions and 324 brand disposals during the period of our study. We removed brand acquisitions and disposals in non-G7 countries that generally represent much smaller markets for the firms in our sample (e.g., Poland, Argentina, Turkey). We also removed those involving brands focused on the non-consumer food service channel. This resulted in a revised sample of 298 brand acquisitions and 253 brand disposals. We then removed events that were tainted by contaminating information pertaining to earnings announcements, stock splits, key executive changes, unexpected stock buybacks, or changes in the dividend within the two-trading-day window surrounding the release of the letter. This resulted in the elimination of 103 events. An additional 52 events had to be dropped due to limited data availability about the event (e.g., we could not locate a four-

digit SIC code for the brand, or we were unable to determine the brand's annual revenues), leaving 232 announcements of brand acquisitions and 163 announcements of brand disposals as our final event sample.[4]

Variable operationalization

Dependent variable. Abnormal stock returns were obtained using the Eventus software program on WRDS. An abnormal stock return is computed as detailed above.

Independent and control variables. These were operationalized using both information coded from the announcements we collected and also from secondary databases such as COMPUSTAT and the University of Chicago's Center for Research in Security Prices (CRSP). Details of the variable operationalization are contained in Appendix 2. A content analysis of the announcements was conducted. Two independent coders recorded the data in the announcements using a standardized coding scheme. Agreement between coders was high (> 80%) and all instances of disagreement were discussed and resolved (Perreault and Leigh 1989). Descriptive statistics for all variables are reported in Table 1, and correlations among the variables in the brand acquisition and disposal samples are reported in Tables 2 and 3, respectively.

Analyses and Results

Event study analysis and results

Daily stock returns were gathered from CRSP, and parameters of the market model were estimated over a window of 90 trading days, ending six days prior to the event. For the 48 firms in our sample whose primary stock listing is in the U.S., the benchmark model is the returns of the equal-weighted market portfolio. For Nestlé, whose primary stock listing is in Switzerland, the benchmark model is the Swiss Market Index. The daily and cumulative average abnormal returns for windows surrounding the event date are presented in Table 4. All the statistical tests are two-tailed. To allow for uncertainty over when information became available to investors, common event study practice is to determine the event window empirically (Agrawal and Kamakura 1995; Brown and Warner 1985). For the disposals, results are strongest for the event day, but for the acquisitions, we observe no significant abnormal return on any of the days surrounding the event. We find no evidence that information leaked to the market before the announcement of the acquisition or sale of the brand. Motivated by the strength of the results for the (0, 0) window for the disposals, as well as by the idea that investors should react swiftly to these material events, we focus our analysis of both disposal and acquisition events on the (0, 0) window.

As expected, we find no support for H1. We find no evidence that the announcement of brand acquisitions is associated with a significant stock price move for the buying firm, with an abnormal return of –.07 on average during the (0, 0) window, ($t_{\text{time-series standard deviation test}} = -.65$, $p > .10$). Thus, in our event sample, we find no evidence that investors generally reward or punish firms for buying brand assets. On the event date, 119 of the 232 abnormal returns were positive. Further, the Wilcoxon signed-rank test, a more powerful nonparametric test incorporating the sign and magnitude of the abnormal returns, was also insignificant ($Z_{\text{Wilcoxon}} = -83.00$, $p > .10$), suggesting that outliers did not overly influence our insignificant results (McWilliams and Siegel 1997).[5]

In contrast, for selling firms, we find that the announcement of brand disposals is associated with a significant mean stock price increase of .61% during the (0, 0) window, supporting H3 ($t_{\text{time-series standard deviation test}} = 4.88$, $p < .01$), with 101 of the 163 abnormal returns being positive. Further, the Wilcoxon signed-rank test was also significant ($Z_{\text{Wilcoxon}} = 1940.00$, $p < .01$), suggesting that outliers did not overly influence our results. The disposal announce-

Table 1. Descriptive Statistics

	Variable	Mean	Std. Dev.	Min.	Max.
Acquisition Sample					
(0,0) Abnormal return (percentage)		–.07	2.43	–11.39	15.87
Brand-level Factors	Related: same industry (shares four-digit SIC code)	.27	.45	.00	1.00
	Related: same industry group (SIC codes share first three digits)	.26	.44	.00	1.00
	Unrelated: different major industry groups (first two digits are different)	.16	.37	.00	1.00
	Relative size of acquisition (acquired brand's sales / acquirer's sales)	.07	.20	.00	1.92
	Brand equity of acquired brand (strong: 1, weak: –1)	.54	.52	–1.00	1.00
	Recent brand performance (better: 1, worse: –1 than category rivals)	.00	.61	–1.00	1.00
	Acquirer bought the entire firm	.53	.50	.00	1.00
	Geographic presence: United States	.77	.42	.00	1.00
	Geographic presence: Canada	.21	.41	.00	1.00
	Geographic presence: United Kingdom	.21	.41	.00	1.00
	Geographic presence: France	.15	.35	.00	1.00
	Geographic presence: Germany	.10	.30	.00	1.00
	Geographic presence: Italy	.08	.27	.00	1.00
Firm-level Factors	Marketing capability	–1.83	.80	–3.23	–.07
	Market value (in billions $)	29.61	38.60	.34	192.91
Transaction Factors	Acquisition has accretive/dilutive impact on ongoing earnings	.09	.51	–1.00	1.00
	Perception of price paid (high price: –1, low price: 1)	–.09	.40	–1.00	1.00
	Brand was purchased in an auction	.11	.31	.00	1.00
Distribution Factors	Acquired brand provides new distribution resources to the firm	.13	.33	.00	1.00
	Acquired brand provides access to new geographies	.06	.25	.00	1.00
	Target bought to leverage acquirer's distribution resources	.36	.48	.00	1.00
Strategic Logic	To enhance firm growth	.70	.47	–1.00	1.00
	To enhance firm profitability	.16	.37	.00	1.00
	To strengthen the firm's core	.79	.41	.00	1.00

Continued

ment was associated with an average gain of $196 million in shareholder value.

Cross-sectional regression results

We tested H2 and H4 through a regression of the standardized (0, 0) abnormal return on the independent variables and the controls to see what impact different firm, transaction, brand, and strategic characteristics had on the abnormal stock returns to the acquisition and disposal of brand assets.[6] The cross-sectional results are presented in Tables 5 and 6.

Brand acquisitions

Table 5 reveals that our cross-sectional regression of the abnormal returns to brand acquisition has significant explanatory power (adjusted R^2 of .15). Among the control variables, we find that the abnormal returns to acquiring a brand are positively associated with purchases of French brands ($p < .10$) and negatively associated with the relative size of the acquisition ($p < .001$). Surprisingly, neither announcements concerning the expected effect of the brand acquisition on the firm's earnings

Table 1. Continued

	Variable	Mean	Std. Dev.	Min.	Max.
Disposal Sample					
(0,0) Abnormal return (percentage)		.61	2.06	–3.12	12.56
Brand-level Factors	Related: same industry (four-digit SIC code)	.22	.42	.00	1.00
	Related: same industry group (SIC codes share first three digits)	.18	.39	.00	1.00
	Unrelated: different major industry groups (first two digits are different)	.18	.38	.00	1.00
	Disposed brand's percent of prior year firm sales	.03	.09	.00	.84
	Brand equity of disposed brand (strong: 1, weak: –1)	.20	.47	–1.00	1.00
	Recent brand performance (better: 1, worse: –1 than category rivals)	–.18	.47	–1.00	1.00
	Geographic presence: United States	.65	.48	.00	1.00
	Geographic presence: Canada	.23	.42	.00	1.00
	Geographic presence: United Kingdom	.20	.40	.00	1.00
	Geographic presence: France	.14	.35	.00	1.00
	Geographic presence: Germany	.13	.34	.00	1.00
	Geographic presence: Italy	.15	.36	.00	1.00
Firm-level Factors	Marketing capability	–1.64	.87	–3.38	–.10
	Market value (in billions $)	33.94	34.79	.74	198.38
Transaction Factors	Disposal has accretive/dilutive impact on ongoing earnings	–.04	.25	–1.00	1.00
	Disposal creates a one-time charge to earnings (cents per share)	–.04	.69	–8.40	2.46
	Perception of price paid (high price: 1, low price: –1)	.02	.22	–1.00	1.00
Distribution	Disposed brand has inferior distribution resources	.03	.17	.00	1.00
Strategic Logic	To focus on faster-growing brands	.33	.47	.00	1.00
	To focus on more profitable brands	.20	.40	.00	1.00
	To focus on core brands	.67	.47	.00	1.00
	To reduce debt	.07	.25	.00	1.00
	To buy back shares	.04	.19	.00	1.00

nor analyst perceptions of the relative price paid for the brand had a significant relationship with abnormal stock returns. We also find that comments regarding both the equity of the acquired brand and its recent past performance had no significant impact.

Using an input–output operationalization of marketing capabilities (e.g., Dutta, Narasimhan, and Rajiv 1999), we find support for H2a ($p < .05$), suggesting that abnormal positive returns to brand acquisitions are more likely when the buying firm has stronger marketing capabilities. Supporting the underlying logic of H2a, we also find that among the control variables, acquiring brands that allow the buying firm to access new distribution resources are associated with more positive abnormal returns. The regression results also provide some support for H2b, with evidence that the acquisition of brands in the same or closely related SIC codes is associated with abnormal positive returns ($p < .10$ and $p < .05$, respectively).[7] The expected negative but nonsignificant coefficient for the auction variable means that there is no support for H2c, linking abnormal negative returns with the presence of multiple potential buyers.

Table 2

Correlations of Variables in the Acquisition Sample

			Correlations																							
Variables		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**
Dependent Variable: AR [0,0]	1	1.00																								
Brand-Level Factors																										
Same market(s)	2	-.04	1.00																							
Related market(s)	3	.05	-.36	1.00																						
Unrelated market(s)	4	.04	-.27	-.26	1.00																					
Relative size of acquisition	5	-.33	.23	-.03	-.07	1.00																				
Acquired brand equity	6	.04	.09	.07	-.10	.03	1.00																			
Acquired brand performance	7	.05	-.01	-.12	.00	-.12	.13	1.00																		
Bought entire firm	8	-.01	-.06	-.07	.09	.08	.02	.26	1.00																	
USA	9	-.04	-.01	-.00	.08	.03	.04	.03	.29	1.00																
Canada	10	.11	-.01	.03	.06	-.03	.14	.09	.11	.11	1.00															
U.K.	11	-.00	.09	-.06	-.02	.02	.04	.06	-.15	-.40	.20	1.00														
France	12	.11	-.01	.01	-.08	.02	.06	.08	-.09	-.35	.11	.33	1.00													
Germany	13	.01	-.01	.07	.01	.06	.10	.03	-.00	-.19	.18	.36	.47	1.00												
Italy	14	.03	-.01	-.07	.04	.08	.02	.08	.00	-.17	.19	.39	.59	.58	1.00											
Marketing capability	15	-.01	.13	-.17	.03	.23	.03	-.18	.03	.02	.04	.04	-.06	.01	.03	1.00										
Firm-Level Factors																										
Market value	16	.01	.07	-.08	.00	-.14	.01	.12	-.04	-.04	-.01	.02	.16	.12	.07	-.33	1.00									
Impact on earnings	17	-.07	-.11	.09	.04	.10	.03	.10	.08	.04	-.07	-.01	-.14	-.11	-.05	.01	-.14	1.00								
Transaction Factors																										
Analyst perception of price	18	.07	-.03	.06	-.05	.08	-.16	-.05	-.06	-.02	-.09	-.15	-.09	-.07	-.05	.05	-.12	.23	1.00							
Acquired in an auction	19	-.04	.01	.05	.03	.17	.10	-.16	-.09	.06	.13	.17	.01	.07	.05	.04	-.01	-.03	-.16	1.00						
Distribution Factors																										
Acquired new distribution	20	.15	-.05	.01	.08	-.05	-.04	.00	.20	.12	.09	.06	.10	.09	.08	-.15	-.06	.01	.05	-.01	1.00					
Acquired new geographies	21	-.13	.15	-.08	-.02	.20	-.03	-.03	-.10	-.15	.04	.26	.19	.21	.24	.13	-.14	.06	-.07	.13	.06	1.00				
Leverage current distribution	22	.05	.12	-.01	-.04	-.11	.05	.11	.12	.18	.03	.04	-.01	.02	.00	-.07	.11	-.10	-.08	-.00	.15	-.09	1.00			
Strategic Logic																										
For growth	23	.00	.12	-.04	-.06	-.00	.21	.31	.20	.19	.09	.01	-.18	.06	-.01	-.07	-.01	.02	-.03	-.04	.08	.06	.20	1.00		
Enhance profitability	24	-.08	.03	-.02	-.00	-.00	.23	.16	.04	.04	.06	.18	.02	.09	.08	-.02	.06	.15	-.25	.08	.01	.12	.09	.13	1.00	
Strengthen core	25	-.10	.07	.01	.08	.11	.08	-.09	-.10	.07	-.02	-.00	-.03	.03	.04	-.02	-.17	.11	-.06	.18	.10	.13	-.06	-.01	.08	1.00

Note: correlations with an absolute value ≥ .13 have a *p*-value < .05.

Brand disposals

Table 6 reveals that our cross-sectional regression of the abnormal returns to brand disposals has good explanatory power (adjusted R^2 of .31). Among the control variables, we find no effect of the primary geographic strength of

Table 3
Correlations of Variables in the Disposal Sample

	Variables		Correlations																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	Dependent Variable: AR [0,0]	1	1.00																							
Brand-Level Factors	Same market(s)	2	.08	1.00																						
	Related market(s)	3	–.09	–.25	1.00																					
	Unrelated market(s)	4	.18	–.25	–.22	1.00																				
	Relative size of disposal	5	.53	.11	–.06	.07	1.00																			
	Brand equity of brand sold	6	.06	–.01	–.00	.04	.06	1.00																		
	Performance of brand sold	7	.05	–.02	–.02	.07	.01	–.03	1.00																	
	USA	8	–.05	.11	–.08	.07	.08	–.01	–.05	1.00																
	Canada	9	–.08	.03	–.07	.02	–.06	.02	–.01	.24	1.00															
	U.K.	10	.05	–.04	–.04	.09	.04	.12	.02	–.41	–.16	1.00														
	France	11	.12	–.05	.03	.09	–.02	.09	.08	–.33	–.14	.29	1.00													
	Germany	12	.06	–.04	–.05	.14	–.02	.10	.04	–.35	–.13	.30	.46	1.00												
	Italy	13	.03	–.06	.11	.11	–.07	–.07	–.06	–.51	–.15	.22	.37	.28	1.00											
Firm-Level Factors	Marketing capability	14	–.12	–.15	–.22	.27	–.01	–.07	.08	–.10	.04	.16	.02	.09	–.10	1.00										
	Market value	15	–.01	.24	–.01	–.10	–.19	.18	–.13	.05	–.08	–.01	.02	–.02	.04	–.17	1.00									
Transaction Factors	Impact on earnings	16	.04	–.04	.01	.07	–.03	–.04	–.00	–.06	–.10	.01	–.01	–.01	–.01	.01	.07	1.00								
	One-time charge to earnings	17	–.01	–.15	.07	.02	.04	.06	.10	–.08	–.15	.08	.02	.02	.02	.11	.04	–.31	1.00							
	Analyst perception of price	18	.15	.08	.02	–.05	.09	.19	–.02	–.04	.01	.09	.03	.04	.03	–.08	.12	–.21	.44	1.00						
Distribution Factors	Inferior distribution resource	19	.22	–.01	.01	.01	.01	–.00	.07	.06	.07	.18	.03	.03	.02	–.04	.15	.03	.01	.30	1.00					
	Focus on faster growers	20	–.02	.03	.10	–.09	.18	.03	–.04	–.06	.02	.08	.05	.10	–.01	.01	–.02	–.27	.09	.22	.03	1.00				
	Focus on more profitable	21	.09	.08	.04	.05	.02	.02	–.01	.10	–.05	.07	.02	.08	–.04	–.18	.11	.07	.10	.01	–.09	.14	1.00			
Strategic Logic	Focus on core	22	.05	–.13	–.14	.12	.19	–.06	.09	.06	.13	.09	–.01	.05	–.10	.10	–.23	–.16	.13	.08	–.10	.19	.02	1.00		
	Reduce debt	23	–.05	.09	–.06	.00	.06	.04	–.05	.04	–.03	.11	.17	.11	.02	.04	–.10	–.26	.01	.08	.24	.12	–.13	.14	1.00	
	Buyback shares	24	.05	–.03	–.01	.08	.04	.12	.07	.01	–.11	.15	.11	.02	–.08	–.05	–.00	–.24	.00	–.02	.15	.21	–.01	.07	.47	1.00

Note: correlations with an absolute value ≥ .16 have a *p*-value < .05.

the brand in question. We also find no evidence that market observer comments regarding the equity of the brand disposed of, its recent past performance, or the expected effects of the disposal on the firm's earnings have any significant impact. However, as

Table 4
Abnormal Returns and Test Statistics for Windows Surrounding the Event Day

Event Window	Abnormal Return (%)	Time Series Standard Deviation Test	Number Positive (Total)	Wilcoxon Signed Rank Test
H1 Acquisition Sample				
–1, 0	.11	.73	116 of 232	–135.00
0, 0	–.07	–.65	119 of 232	–83.00
0, 1	–.04	–.28	118 of 232	863.00
H2 Disposal Sample				
–1, 0	.56	3.20***	88 of 163	1388.00**
0, 0	.61	4.88***	101 of 163	1940.00***
0, 1	.71	4.00***	94 of 163	1636.00***

Note: *** $p < .01$; ** $p \leq .05$; * $p \leq .10$

expected, we do observe that analyst perceptions of the price realized in selling the brand ($p < .05$) is positively associated with abnormal stock returns to brand disposals.

In terms of H4, while in the expected negative direction, the insignificant coefficient on the marketing capability variable provides no support for H4a. However, among the control variables, we do find a strong positive coefficient on the sale of brands for which the selling firm has weaker distribution resources ($p < .01$). This provides some evidence to support the logic underpinning the H4a hypothesis. Announcements that the proceeds from selling a brand will be invested in stock buybacks are in the expected direction, but this relationship is not significant and therefore provides no support for this aspect of H4b. Conversely, in the opposite direction to H4b, we do observe that identifying debt reduction or enhancing growth as the intended use of the brand disposal proceeds is associated with a significant negative abnormal return for the selling firm ($p < .05$). Thus, H4b is clearly not supported. In contrast, we find strong support for H4c, with the sale of relatively larger brands (implying a larger opportunity for efficiency savings through the reduction in the selling firm's brand portfolio) being positively associated with greater abnormal stock returns ($p < .001$). A marginally significant positive coefficient ($p < .10$) for the unrelatedness variable means that there is weak support for H4d.

Discussion and Implications

Our study found no evidence of any significant abnormal returns associated with the acquisition of brand assets. This does not suggest that brand assets are not valuable. Rather, in line with strategic-factor market theory, it may simply mean that the buy-side market for brand assets is relatively efficient in valuing brands. This outcome contrasts with the "winners curse" phenomenon noted in the acquisitions literature in strategic management and economics, which shows that acquirers consistently pay too high a premium when purchasing other firms (e.g., Varaiya 1988). Our results suggest that acquirer expectations of the future returns from the purchase of a single asset (a brand) may be more accurate than acquirer expectations when purchasing a collection of different types of assets (an entire firm). If we assume that the buy-side factor market for brands is relatively efficient, this finding would support a valuation approach such as Interbrand's that uses the prices paid for brand assets in a sector's recent market transactions to determine the earnings

Table 5

Cross-sectional Regression Results on the Standardized Abnormal Return for the Event Day for the Brand Acquisitions (0, 0) (percentage)

Independent Variable	Parameter Estimate	*t*-value
Intercept	1.07**	2.16
Firm-level Factors		
H2a: Marketing capability	.42**	2.53
Market value (in billions $)	–.00	–.59
Brand-level Factors		
H2b: Related: share same industry	.50*	1.63
H2b: Related: in same industry group	.62**	2.10
H2b: Unrelated: different major industry groups	.48	1.44
Relative size of acquisition	–3.63***	–4.74
Brand equity of acquired brand (strong: 1, weak: –1)	.21	.91
Recent brand performance (better: 1, worse: –1 than category rivals)	–.03	–.14
Acquirer bought the entire firm	–.36	–1.39
Geographic presence: U.S.	–.05	–.17
Geographic presence: Canada	.17	.65
Geographic presence: U.K.	–.37	–1.13
Geographic presence: France	.72*	1.76
Geographic presence: Germany	–.47	–1.06
Geographic presence: Italy	.21	.38
Transaction Factors		
H2c: Brand was purchased in an auction	–.37	–.89
Acquisition has accretive/dilutive impact on ongoing earnings	–.09	–.38
Perception of price paid (high price: –1, low price: 1)	.01	.03
Distribution Factors		
Acquired brand provides new distribution resources to the firm	.88**	2.41
Acquired brand provides access to new geographies	–.89	–1.57
Target bought to leverage acquirer's distribution resources	–.01	–.06
Strategic Logic		
To enhance firm growth	.23	.88
To enhance firm profitability	–.27	–.76
To strengthen the firm's core	–.64**	–2.45

Observations	232
R^2	.24
Adjusted R^2	.15
***F*-value**	2.67
***F*-probability**	< .01

Note: *** $p < .01$; ** $p \leq .05$; * $p \leq .10$

Table 6

Cross-sectional Regression Results on the Standardized Abnormal Return for the Event Day for the Brand Disposals (0, 0) (percentage)

Independent Variable	Parameter Estimate	t-value
Intercept	.13	.34
Firm-level Factors		
H4a: Marketing capability	–.05	–.35
Market value (in billions $)	.00	.63
Strategic Logic		
H4b: To reduce debt	–1.28**	–2.51
H4b: To buyback shares	.90	1.43
To enhance firm growth	–.65**	–2.55
To enhance firm profitability	.45	1.53
To strengthen the firm's core	-.01	-.02
Brand-level Factors		
H4c: Relative size of disposal	14.31***	6.66
H4d: Related: in same industry	.19	.59
H4d: Related: in same industry group	–.11	–.38
H4d: Unrelated: in different major industry groups	.63*	1.82
Brand equity of disposed brand (strong: 1, weak: –1)	–.07	–.29
Recent brand performance (better: 1, worse: –1 than category rivals)	–.26	–1.05
Geographic presence: U.S.	–.33	–1.11
Geographic presence: Canada	–.17	–.64
Geographic presence: U.K.	–.33	–1.04
Geographic presence: France	.46	1.23
Geographic presence: Germany	.11	.31
Geographic presence: Italy	–.14	–.36
Transaction Factors		
Disposal has accretive/dilutive impact on ongoing earnings	–.15	–.30
Disposal creates a one-time charge to earnings (cents per share)	–.23	–.91
Perception of price received (high price: 1, low price: –1)	1.58**	2.05
Distribution Factors		
Disposed brand has inferior distribution resources	2.23***	2.68
Observations	163	
***R*2**	.41	
Adjusted R^2	.31	
***F*-value**	4.16	
***F*-probability**	< .01	

Note: *** $p < .01$; ** $p \leq .05$; * $p \leq .10$

"multiple" used to compute the value of specific brands. However, the results of our test of H2c indicate that it may not be the presence of multiple prospective bidders for a brand that drives the insignificant returns from brand purchase (and, by inference, the efficiency of the strategic-factor market for brands).

In contrast to Bahadir, Bharadwaj, and Srivastava (2008), who find that acquirer marketing capabilities do not affect the value placed on brands in the context of whole-company acquisitions, our cross-sectional regression results indicate that firms with strong marketing capabilities may enjoy greater positive returns in the context of stand-alone brand assets. The regression results also indicate that when buying brands, acquirers that have the ability to use the purchased brand's channel relationships to expand the distribution of their existing brand portfolio may be rewarded. However, our results suggest that this may not be true of using the acquirer's existing channel relationships to expand distribution of the purchased brand. A subsequent split group analysis revealed that brand acquisitions that bring new distribution relationships to the acquirer produce a significant .91% positive abnormal return on average during the (0, 0) window ($t_{\text{time-series standard deviation test}} = 2.63$, $p = .01$), with 17 of 29 abnormal returns being positive ($Z_{\text{Wilcoxon}} = 87.50$, $p = .06$). In contrast, brand acquisitions designed to leverage the acquirer's existing channel relationships produce an insignificant .08% abnormal return on average during the (0, 0) window ($t_{\text{time-series standard deviation test}} = .43$, $p > .10$), with 48 of 84 abnormal returns being positive ($Z_{\text{Wilcoxon}} = 233.00$, $p > .10$).

This suggests an interesting asymmetry: investors appear to reward the leveraging of the acquirer's existing brands through new channels but not to reward the leveraging of the newly acquired brand(s) through the acquirer's existing channels. Theoretically, this may suggest that firms in strategic-factor markets undervalue the channel relationships associated with a brand. It may also suggest that investors believe that firms have the opportunity to further leverage their brand assets via new channels. However, it is also possible that it is the relative size of the two opportunities that drives these results. The average size of the acquired brands in our sample is around 7% of the acquirer's total sales revenue, so it is possible that the absolute returns of leveraging the acquirer's larger brand portfolio through a new channel are greater than those possible from selling the newly acquired brand(s) through the firm's existing distribution network.

The regression results also indicate that the degree of diversification implied in the purchase of the brand affects abnormal returns—though only at the "related" end of the spectrum. This suggests that investors may see significant synergies and resulting cost savings in purchasing brands in the same or closely adjacent markets. The stronger result for brand acquisitions in related but different market segments also suggests that investors may also see some redundancy downsides in brand purchases within the same segment. In contrast, brand acquisitions in unrelated industries were not associated with significant abnormal returns.

On the sell side, our results reveal a significant, positive abnormal return associated with the sale of brand assets. Thus, firms are rewarded when investors become aware of a pending sale of brand assets. From a marketer perspective this may appear counterintuitive: if brands are drivers of a firm's performance, why would investors reward firms that sell their brand assets? However, this finding is consistent with strategic-factor market theory in strategic management and price systems theory in economics. From these perspectives, the seller firm is being rewarded not because the brand asset is not valuable to the firm but because another firm (the buyer) has a higher expected value in use for the brand asset(s) in question. This finding is also consistent with strategic-factor market theory regarding infor-

mation asymmetry and our conjecture that because sellers have more knowledge and information concerning the brand, they should have more accurate expectations about the brand's value in use. Theoretically, this is a strategic-factor market imperfection that seller firms can exploit, and our results suggest that investors are aware of this benefit to sellers of brands.

The positive abnormal returns to the sale of a brand are even more positive when selling noncore business brands, larger brands, and when the firm achieves a higher price than was anticipated. The enhanced positive returns when selling a non-core business brand is consistent with Varadarajan, DeFanti, and Busch's (2006) conjecture that firms will sell such brands if the brands are likely to fetch a premium in the marketplace. The enhanced positive returns from selling larger brands mirrors the negative returns from buying larger brands in the acquisition sample. The enhanced abnormal positive returns accruing to brand disposals that realize a higher price than analysts expected are consistent with a "shareholder value maximization" perspective on investor behavior (Woolridge and Snow 1990).

Our regression analyses revealed two other interesting results. First, we find that the sale of brands for which firms have relatively limited distribution resources is positively related to abnormal returns. In RBV terms, this is suggestive of a better use available in a strategic-factor market for the brand asset and an absence of a "parenting advantage" for the seller (e.g., Peteraf 1993; Campbell, Goold, and Alexander 1995). For a tradable asset such as a brand, this should result in the expected value of ownership of the brand being higher for a firm with superior distribution resources, and ownership by such a firm should result in a higher valuation for the brand (Barney 1986; 1989). Perhaps most interesting here is that this result is not mirrored in the brand acquisition findings. Meanwhile, both the results concerning the brand's distribution weakness and the firm's relative marketing capabilities suggest that analysts and investors have a somewhat nuanced understanding of the drivers of brands and how they contribute to firms' financial performance.

Second, we find no evidence that announcements detailing the strategic logic of the disposal (i.e., the use to which the proceeds of the brand asset disposal will be put) enhance the positive abnormal returns observed. In fact, announcements of investing the proceeds of a brand disposal in either reducing the firm's debt or in enhancing its growth both produce significant negative abnormal returns. In the case of the debt reduction announcement result, one possible explanation is that investors view paying down debt as an indicator that the firm's managers do not see internal investment opportunities that may provide better returns. Another possibility is that some of these firms face significant debt problems and are selling off brand assets that they would not wish to otherwise dispose of, suggesting that there is not necessarily a more valuable use for the brand in question. However, given the premium investors typically attach to growth, it is not clear why they should punish firms that use the proceeds of a brand disposal to invest in higher-growth opportunities elsewhere in their portfolios. One possibility is that this is a case of "better the devil you know." That is, investors were more certain of the prospects of the slower-growing brand that was sold off and are made uneasy by not knowing where within its remaining brand portfolio the firm intends to invest the disposal proceeds.

Limitations and Future Research

As with all studies of this type, a number of limitations need to be borne in mind when considering our results. First, while the event study is a widely used method for examining investor reactions, it does not explain why any observed abnormal return occurs (Tellis and

Johnson 2007). We assume that investors' responses to brand acquisitions and disposals are a function of the variables included in our cross-sectional regressions, but surveys of investors will be useful to confirm this assumption. Second, we use any announcement that a firm is entering into talks to acquire/dispose of a brand as the event in our operationalization of the existence of an auction of a brand (two or more such announcements for the same brand). Future research should examine the effect of using information from earlier stages in the bidding process as the triggering event that signals the existence of an auction (e.g., when a firm is rumored to be considering a bid for a brand or when firms announce an intention to bid for a brand). Third, we use the ACSI as our initial sampling frame to provide a sample that is representative of the U.S. consumer economy. However, this also limits the generalizability of our results to larger firms operating in consumer markets in the United States. Additional studies in other sectors and countries will be required before our results can be fully generalized.

In addition to the further research needed to address these limitations, our study also suggests a number of promising areas for future research. First, our study is one of the first to empirically examine the theoretically important concept of strategic-factor markets for market-based assets of any kind. In the case of brand assets, we do not find any evidence of strategic-factor market inefficiency on the buy side. This suggests that under most conditions, firms cannot outperform rivals over time by purchasing brand assets, which in turn implies that the brand-related source of sustainable competitive advantage for firms operating in consumer markets is more likely to be firms' ability to *create* strong brand assets. Yet, we have little or no understanding of what comprises brand creation capabilities. This is clearly a significant gap in theoretical and empirical knowledge and an important area for future research.

Second, our results indicate a belief among analysts and investors that firms should not diversify their brand portfolios. Investors are more likely to reward the acquisition of brands that are closely related to the firm's existing portfolio and the disposal of brands that are less related to the firm's portfolio. Yet, portfolio theory in finance indicates that diversifying portfolios of stocks is associated with lower risk. Our results indicate either that investors do not see an analogous risk reduction in broader brand portfolios, or that any perceived risk reduction is negated by corresponding investor perceptions of lower returns. This suggests that investors perceive there to be significant synergies in the management of multiple brands marketed in related categories and segments. Yet, we have little understanding of where such synergies reside and how these shared resources and capabilities may best be leveraged. This represents an important area for theory development and managerially relevant research.

Appendix 1
Companies and Industries Included in Complete Case Analysis Data Set

Companies
American Brands
Anheuser-Busch
Best Foods
Borden
Cadbury Schweppes
Campbell's Soup
Cendant
Clorox
Coca-Cola
Colgate-Palmolive
ConAgra Foods
Dial
Del Monte
Dole Food
Fruit of the Loom
General Mills
Grand Metropolitan/ Diageo
H. J. Heinz
Hershey's
Hilton
InterContinental Hotels
Jones Apparel
Kellogg's
Kraft Foods
Liz Claiborne
McDonald's
Marriott
Molson Coors
Nabisco
Nestlé
Nike
Papa John's
PepsiCo
Philip Morris/Altria
Procter & Gamble
Promus
Quaker Oats
Ralcorp
Ralston Purina
Reebok
Reynolds American
Sara Lee
Starbucks
Starwood
Tyson Foods
Unilever
VF Corporation
Wendy's
Yum! Brands

Industries
Apparel
Athletic Shoes
Beverages—Beer
Beverages—Soft Drinks
Food Processing
Tobacco—Cigarettes
Personal Care Products
Hotels
Limited-Service Restaurants

Appendix 2
Operationalization of Independent and Control Variables

Variable	Operationalization
Brand-level Factors	
Related: same industry	If the four-digit SIC code for the sample firm and target in the transaction are the same (e.g., 2011 and 2011). Brand SIC codes were provided by SDC Platinum and firm SIC codes were provided by the closest firm segment SIC code from the COMPUSTAT Segments database.
Related: same industry group	If the four-digit SIC code for the sample firm and target in the transaction differ in their last digit (e.g., 2011 and 2013).
Unrelated: different industry group	If the four-digit SIC code for the firm and the brand differ in their first two digits (e.g., 2842 and 3291).
Relative size of brand	Prior-year sales of the brand / prior-year sales of the firm.
Geographic presence of the brand	The main countries within the G7 that the brand operated in were coded from press reports of the transaction.
Brand equity	If the brand was described as an esteemed brand by market observers (e.g., an "iconic" brand) or identified as the market leader, coded from press reports of the transaction.
Recent brand performance	If the brand's past-year performance (in terms of revenue or market share) was described as better (1) or worse (–1) than that of other brands in its category, coded from press reports of the transaction.
Entire firm[a]	When purchasing the brand involves acquiring an entire firm (e.g., Kraft's acquisition of Balance Bar).

Firm-level Factors	
Firm's marketing capability	Stochastic Frontier Efficiency Estimation, using COMPUSTAT, CRSP, USPTO, and AMAC data, where Tobin's Q not accounted for by R&D spending, patents, and management quality is the marketing output and trademarks, Ad spending and SGA spending are the marketing inputs.
Market value	Closing price × shares outstanding from CRSP.
Transaction Factors	
Stated earnings impact	Whether the acquisition/disposal would have an accretive (1), dilutive (–1), or no impact (0) on ongoing earnings, coded from press reports of the transaction.
One-time charge[d]	If the firm announced that the disposal would have a one-time impact on earnings, due to either a gain or a one-time charge. Expressed in cents per share.
Perception of brand's price	Whether price paid was deemed high or low by market observers, coded from press reports. For acquisitions, high (–1) and low (1); for disposals, high (1) and low (–1).
Brand was purchased in an auction[a]	Coded using the appearance of the terms "auction," "bid," and "bidders." coded from press reports.
Distribution Factors	
Disposed brand has inferior distribution resources[d]	Whether the firm decided to sell because the brand's distribution resources were inferior to its competitors, as coded from press reports of the transaction.
Acquired brand provides new-to-the-firm distribution resources[a]	When the brand was acquired in part because it provides new routes to market or allows the firm to sell in new channels, as coded from press reports.
Acquired brand provides access to new-to-the-firm geographies[a]	When the brand was acquired in part to allow the firm to sell in geographies, as coded from press reports (e.g., Campbell's Soup buying Liebig in France).
Target bought to leverage acquirer's distribution resources[a]	When the acquiring firm stated that a reason for the acquisition was to be able to expand the acquired brand's sales by leveraging the firm's existing distribution strengths (e.g., P&G's purchase of Tambrands).
Stated Strategic Logic	
To focus on faster-growing brands[d]	Coded from press reports if firm identified this as a rationale for the disposal.
To focus on more profitable brands[d]	Coded from press reports if firm identified this as a rationale for the disposal.
To focus on core brands[d]	Coded from press reports if firm identified this as a rationale for the disposal.
To reduce debt[d]	Coded from press reports if firm identified this as a rationale for the disposal.
To buy back shares[d]	Coded from press reports if firm identified this as a rationale for the disposal.
To enhance firm growth[a]	Coded from press reports if firm identified this as a rationale for the purchase.
To enhance firm profitability[a]	Coded from press reports if firm identified this as a rationale for the purchase.
To strengthen the firm's core[a]	Coded from press reports if firm identified this as a rationale for the purchase.

[d] *Disposal sample and analyses only*
[a] *Acquisition sample and analyses only*

Notes

1. While theory predicts a nonsignificant association, we frame the hypothesis positively to make it falsifiable.

2. Following current finance research practice, we calculate the daily abnormal returns associated with these events using the standard, single-factor market model (Conrad, Cornell, and Landsman 2002; Yermack 2006).

3. Our sample size is comparable with that of many other event studies. For example, Aaker and Jacobson (1994) and Lane and Jacobson (1995) each had a sample of 34 firms (though with a much smaller number of events over a shorter time period than in our data set), and Agrawal and Kamakura (1995) had a sample of 35 firms (and 110 events over a similar time period).

4. In only 24 observations were the purchase and disposal events matched in our two databases, suggesting that the 49 large companies in our sample rarely swap brand assets. All but 17 of these matched pairs were tainted by confounding information, so only 17 are included in our analyses.

5. Sensitivity analyses indicate that the nonsignificant negative abnormal return is robust with respect to other market model benchmarks and statistical tests. The significance of (0, 0) abnormal return is unaffected by using a value-weighted market portfolio. Results for the (0, 0) window are also nonsignificant using Jaffe's (1974) portfolio method test statistic.

6. Because the brand acquisition and disposal events are nested within 49 firms, we considered variance components models for both samples. For each, the null model likelihood ratio test was nonsignificant, suggesting that random-effects models provide little advantage over Ordinary Least Squares. Empirically, we also find that the results when using a random-effects approach are materially the same as the Ordinary Least Squares results reported here.

7. The negative coefficient for the "strengthen the core" strategic logic control variable may appear inconsistent with the result for H2(b). However, acquirer and analyst statements concerning the core are not confined to the firm's existing markets and also often concern brand purchases that are closely related to the firm's existing resources and competencies and those that provide the firm with a platform for selling existing brands in new markets.

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MSI Report No. 09-103