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The Effect of Brand Acquisition and Disposal on Stock Returns

Brand acquisitions and disposals are key strategic marketing decisions and often the largest single marketing investments that firms make. Yet little is known about the performance effects of such decisions. This study examines stock market reactions to brand acquisition and disposal announcements in 31 consumer industries. The results reveal that returns to such announcements depend crucially on three complementary firm assets—marketing capabilities, channel relationships, and brand portfolios—but that these effects may not be symmetric across brand acquisitions and disposals. Acquirer abnormal returns are greater for firms with strong marketing capabilities and those that buy brands with higher price/quality positioning than their existing portfolio. Investors also reward buyers that identify cost synergies in integrating new brand(s) into their portfolios but punish those that identify revenue synergies. Conversely, greater abnormal returns arise for sellers with inferior channel relationships and for those selling multiple brands, brands with relatively lower price/quality positioning than the seller's remaining portfolio, and brands unrelated to the rest of the seller's portfolio. The results from a paired subsample provide new knowledge about the positive net shareholder wealth created from brand acquisition–disposal transactions and indicate a strong role of marketing capabilities in creating this wealth.

Keywords: brand porfolio, brand acquisition, brand disposal, mergers and acquisitions, event study

Examining the effect of strategic marketing investments on shareholder wealth is central to understanding the financial impact of marketing. A firm's shareholder value reflects the discounted value of its expected future cash flows (e.g., Rappaport 1997). Marketing investments that affect channels of distribution and customers, in ways that influence the firm's cash flows, therefore affect shareholder value (e.g., Gruca and Rego 2005). Marketing literature provides a well-developed theoretical rationale detailing how building market-based assets such as brands can affect firm market value, such as 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). A growing body of evidence also links brands with competitive advantages for the firms that own them (e.g., Keller and Lehman 2006; Rao, Agarwal, and Dahlhoff 2004). Therefore, it is now widely accepted that brands are important intangible assets that can contribute significantly to firm performance and shareholder value.

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Most business-to-consumer (B2C) firms have portfolios comprising multiple brands (Hill, Ettenson, and Tyson 2005; Morgan and Rego 2009) and make portfolio adjustments by buying or selling brands (Capron and Hulland 1999; Laforet and Saunders 2005). For example, in 2000 Unilever announced a brand portfolio trimming strategy, and by 2003, it had sold off several hundred brands—including Elizabeth Arden perfumes and Golden Griddle syrup. At the same time, other firms have grown their brand portfolios through brand acquisitions. For example, since its 2000 corporate strategy change, ConAgra has built a portfolio of 48 major brands—only 3 of which were developed in-house. Despite active markets for both the acquisition and disposal of firms' brand assets, there is 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 brands (e.g., Varadarajan, DeFanti, and Busch 2006).

In this study, we address this significant knowledge gap by focusing on four questions of particular theoretical importance and managerial interest. 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, what complementary firm assets affect returns to buying and selling brands? Fourth, from an investor perspective, what is the combined net wealth effect of a brand disposal–acquisition transaction? Figure 1 outlines the research framework we adopt to examine these questions.

In addressing these four questions, this study differs from the only prior study in this domain (Bahadir, Bharadwaj, and Srivastava 2008) in several ways that allow us to provide important new insights. First, we adopt a shareholder rather than a manager perspective and examine abnormal

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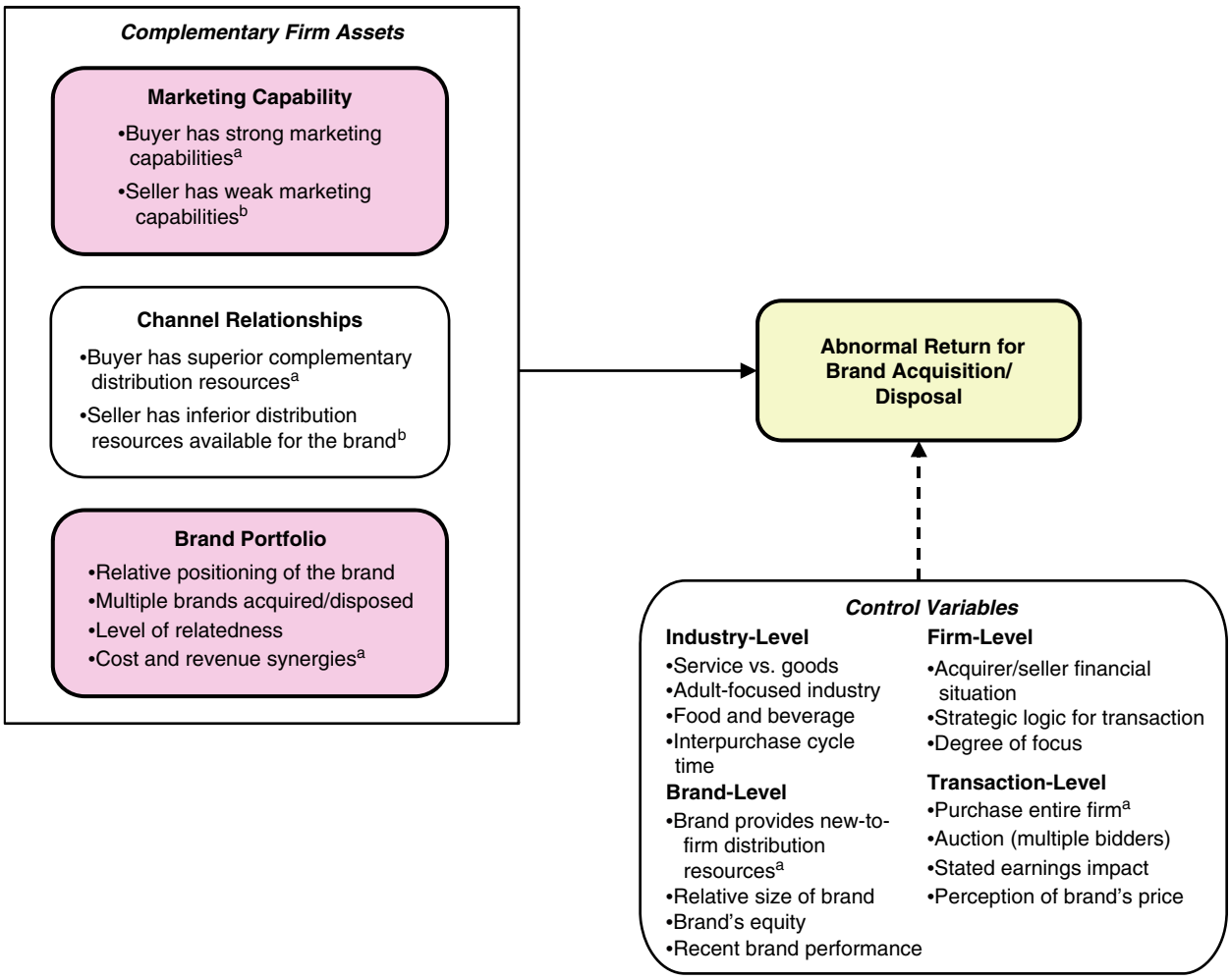
FIGURE 1
Research Framework



[a]Factor only applies to acquisitions.
[b]Factor only applies to disposals.

stock returns. These returns provide the financial market's collective assessment of the prospective cash flow impact that brand asset transactions will have on the firms involved. Shareholders may not value brands in the same way as the managers involved, and this external measure of the value that is likely to be generated in such transactions may provide a more objective assessment of the wisdom of such exchanges. Thus, we can examine situations in which the value-generating capabilities of transactions are not completely impounded in the value that the acquirer places on the target brand(s). For example, from a brand portfolio perspective, we find that acquisitions of brands that are positioned at higher price points and quality levels than the rest of the acquirer's portfolio enhance positive abnormal returns.

Second, we examine brand asset transactions from both the buyer and seller shareholders' perspectives. This approach provides new insight into, and a way to determine, the conditions in which brand disposals and acquisitions generate value. The value-generating conditions for brand disposals may not be simply the obverse of brand acquisitions. We find evidence of asymmetries in how investors value complementary marketing capabilities and resources with respect to brand acquisitions versus disposals. For example, investors value firms' marketing capabilities in brand acquisitions but not in brand disposals, and they value firms' distribution resources in brand disposals but not in brand acquisitions.

Third, most brand acquisition and disposal activity involves the transfer of specific brand assets between firms rather than the acquisition and sale of entire firms. We include almost equal numbers of brand acquisition transactions that do and do not involve buying an entire firm, along with its brand(s), in our study. All our brand disposal observations involve the sale of specific brand assets, not the whole firm. Overall, our results suggest that buying entire firms for their brand assets reduces abnormal returns, but there are opportunities for firms to enhance their performance through the exchange of some of their brand assets with another firm for which the brand has a higher

value-in-use. Our comprehensive model also provides new insight into new factors, such as distribution resources that influence value creation, and allows for the identification of win–win acquisition–disposal situations.

Fourth, we introduce an additional perspective from mergers and acquisitions (M&A) literature by examining the total economic value produced in the brand acquisition–disposal transaction. We find that, considering both the buying and the selling firms in the same brand transaction simultaneously, net shareholder wealth is created. We further show that buyer–seller marketing capability differences play a prominent role in creating this shareholder wealth, providing new insight into the ability of marketing capabilities to create value for firms.

Conceptual Framework and Hypotheses

Firms often acquire the resources (e.g., brands) required to produce cash flows through the implementation of a particular strategy (Chi 1994; Dierickx and Cool 1989). From this perspective, investors recognize that a brand is an asset with some value, and this value is built into the stock price of the brand's owner (e.g., Mizik and Jacobson 2009; Rego, Billett, and Morgan 2009). Thus, all else being equal, if an owner sells the brand, its stock price should go up if the firm is less able to use that brand asset to generate cash flows than its other assets. Similarly, a buyer's stock price should go up if it is likely to be better at using the acquired brand to generate cash flows than it would be using its other assets. However, resource and capability differences between firms mean that rarely, if ever, is the all-else-being-equal condition likely to hold. Rather, management theorists view resources and capabilities as heterogeneously distributed among firms (e.g., Barney 1988) and suggest that asset complementarities mean that these differences likely affect firms' ability to generate cash flows from a particular traded asset (e.g., Barney 1986; Makadok 2001).

Drawing on this theory, our research model (Figure 1) views brands as assets that are valued by investors to the extent that they allow the firm to generate cash flows more effectively and efficiently than it could using other resources. Investor responses to buying or selling brand assets is therefore a function of the firm's ability to generate cash flows from a particular brand asset, and this ability likely differs across firms as a result of the presence or absence of their complementary assets. Thus, in our hypotheses, we focus on the effect of three complementary assets of interest to marketing researchers and managers, as highlighted in prior literature: marketing capabilities, channel relationships, and brand portfolios.

Each of these marketing assets is a result of firms' idiosyncratic investments and activities over time (Capron and Hulland 1999). For time compression reasons and because they may be difficult to observe, such assets are difficult to replicate in the short term (Amit and Schoemaker 2003; Dierickx and Cool 1989). Thus, although some of their components can be traded, these assets usually can be acquired only in their entirety by buying a firm (Barney 1989). For example, managers might move to the buyer with a traded brand, but this move is relatively rare, and the seller's marketing and brand management systems and related embedded knowledge are imperfectly transferable (Kapferer 2004). Some channel relationships may transfer with a brand. For example, the brand's relationships with consumers may make it difficult for existing channels to delist it after an ownership transfer. However, other channel assets, such as customer relationships, logistical arrangements, and so on, are more difficult to transfer (Capron and Hulland 1999). Similarly, replicating a brand portfolio requires either buying a firm with the desired portfolio characteristics or building a portfolio piecemeal by buying different brands with the requisite characteristics (Hill, Ettenson, and Tyson 2005).

Thus, in the short term, none of the three assets can simply be acquired by either a brand's existing owner or other firms that are potential acquirers of the brand (Capron and Hulland 1999; Morgan, Vorhies, and Mason 2009).[1] To the extent that each of the three assets gives a firm a relative advantage in generating cash flows from a brand, their presence or absence should materially affect the abnormal returns to buying or selling a particular brand (Amit and Schoemaker 1993). We explore in more detail how each of these different types of complementary assets may affect the firm's ability to generate cash flows from a particular brand asset and develop testable hypotheses. We develop separate hypotheses for acquirers and sellers of brand assets because the effects we hypothesize may not be symmetric. We later test these hypotheses with separate samples of acquirers and sellers.

Hypotheses

A firm's marketing capability—its ability to define, develop, and deliver value to customers by combining and deploying its available resources—is an asset that may enhance its brands' value-in-use (Amit and Shoemaker 1993; Bahadir, Bharadwaj, and Srivastava 2008). For example, strong pricing capabilities should enable a firm to generate greater cash flows for a brand from customers and channel partners (Dutta, Zbaricki, and Bergen 2003). Similarly, strong marketing communications capabilities should enable a firm to generate demand more effectively and efficiently for a brand (e.g., Kapferer 2004). Brand management capabilities also should enable a firm to both generate cash flows from a brand and simultaneously build the equity of the brand asset itself (e.g., Morgan, Slotegraaf, and Vorhies 2009). Prior literature further suggests that a firm's ability to develop and execute appropriate marketing strategies is likely to play a role in enabling the firm to generate cash flows from a brand asset (e.g., Vorhies and Morgan 2005).

Thus, all else being equal, when a firm has strong marketing capabilities, its ability to generate cash flows from a brand asset is likely to be greater than its ability to generate cash flows from its other assets, and vice versa. From this perspective, if a firm with strong complementary marketing capabilities buys a brand, investors should view the buyer's ability to generate cash flows from the brand asset as higher.

[1]Buying an entire firm may enable the acquirer to access complementary assets, but other intangible and tangible assets also are acquired. Even in these conditions, M&A literature suggests that such acquisitions are priced at a premium, such that the acquirer's shareholders lose rather than gain value.

Conversely, if a firm has weak complementary marketing capabilities, investors likely view its ability to generate cash flows from a brand asset as lower than its ability to generate cash flows from its other assets. This tendency implies a higher alternative value-in-use for the brand asset to a potential buyer with stronger marketing capabilities than its existing value to a seller firm with weaker marketing capabilities. Therefore, the seller should achieve a price for the brand asset higher than the brand's existing value-in-use and be able to focus on using its other assets to generate cash flows—at which it should be relatively better.

H_{1a}: Acquirer abnormal returns are greater when the acquirer has strong marketing capabilities.

H_{1b}: Seller abnormal returns are greater when the seller has weak marketing capabilities.

A firm's channel relationships—the extent and nature of its connections with channel partners—are market-based assets that can enhance the firm's ability to generate cash flows from a brand (Kapferer 2004; Srivastava, Shervani, and Fahey 1998). For example, a firm with extensive and close working relationships with its retail channel partners can achieve better shelf positions and special displays for its brands, which should increase demand (e.g., Ataman, Mela, and Van Heerde 2008). Close channel relationships also reduce transaction costs, such as order processing and inventory holding costs associated with selling the brand, and allow for higher brand margins (Srivastava, Shervani, and Fahey 1998).

All else being equal, a firm with strong channel relationships should be better able to generate cash flows from a brand asset than firms that do not enjoy such relationships. Thus, a buyer with the ability to leverage a brand through its superior distribution system may acquire a brand and still produce superior economic returns. Conversely, a firm with weaker channel relationships likely can generate cash flows using assets other than the brand. This theory implies a higher alternative value-in-use for the brand asset to a potential buyer than its existing value to a seller firm with relatively inferior channel relationships, which should enable such seller firms to gain from a disposal transaction.

H_{2a}: Acquirer abnormal returns are greater when the acquirer has superior distribution resources.

H_{2b}: Seller abnormal returns are greater when the seller has inferior distribution resources.

The firm's existing brand portfolio is another complementary asset highlighted in prior literature (e.g., Bahadir, Bharadwaj, and Srivastava 2008; Morgan and Rego 2009). The relationship between the traded brand and the rest of the acquirer's/seller's brand portfolio may also have an impact on the returns to buying/selling brands (Carlotti, Coe, and Perry 2004; Varadarajan, DeFanti, and Busch 2006). One characteristic of brands and brand portfolios that is particularly valuable is their quality/price positioning. Brands with higher perceived quality are more valuable (e.g., Aaker and Jacobson 1994), and the average perceived quality level of a brand portfolio is linked to firm performance (e.g., Morgan and Rego 2009). Higher perceived quality allows firms to charge higher prices, which become important signals of perceived quality to consumers (Kirmani and Rao 2000). When higher prices are perceived as in line with high perceived quality, they can translate into superior brand portfolio cash flows (Morgan and Rego 2009). Thus, buying a brand that is positioned as higher in quality and price than the buyer's existing brands should raise the average perceived quality/price positioning of the firm's overall portfolio, which should enhance its value. Conversely, selling a relatively inferior-quality-/lower-price-positioned brand should enhance the value of the seller's remaining brand portfolio by raising its average perceived quality and price positioning level.

H_{3a}: Acquirer abnormal returns are greater when the acquired brand(s) are positioned at higher quality and price points than the acquirer's existing brand portfolio.

H_{3b}: Seller abnormal returns are greater when the brand(s) sold are positioned at lower quality and price points than the brands remaining in the seller's portfolio.

The number of brands in a firm's portfolio is another important brand portfolio characteristic (Morgan and Rego 2009). From this perspective, literature suggests that, all else being equal, reducing the size of a brand portfolio can result in efficiencies that lower costs (e.g., Knudsen et al. 1997; Laforet and Saunders 2005). For example, following its 2000 portfolio slimming strategy, increased procurement standardization and other efficiency savings allowed Unilever to improve its operating margins from 11.2% to 15% by 2003 (Pierce and Moukanas 2002). The sale of multiple brands in a transaction may increase the efficiency with which the seller firm can manage its remaining brand portfolio. Conversely, because managing larger brand portfolios requires greater marketing expenditures (Morgan and Rego 2009), buying multiple brands may decrease the efficiency in managing the buyer's brand portfolio, with lower expected returns from the acquisition.

However, other aspects of the firm's brand portfolio context likely have an impact on these relationships. Specifically, we predict that two context effects moderate the effect of acquiring or selling multiple brands on abnormal returns. First, the anticipated effect of acquiring (selling) multiple brands should be magnified in relatively larger brand transactions because the absolute economic value of the brand portfolio and the complexity costs (benefits) involved are likely larger. Second, the brand portfolio complexity costs (benefits) should be smaller to the extent that the firm buying (selling) the brand has a more focused portfolio because a more focused business leads to a greater degree of communality in brand portfolio management systems and processes, enabling greater synergies and lower costs to deal with complexity in managing the brand portfolio.

H_{4a}: Acquirer abnormal returns are lesser when the acquirer buys multiple brands.

H_{4b}: Seller abnormal returns are greater when the seller disposes of multiple brands.

H_5: The effect of buying multiple brands on the acquirer's abnormal returns is (a) stronger when the transaction involves larger brands and (b) weaker when the acquirer has a more focused business portfolio.

H_6: The effect of selling multiple brands on the seller's abnormal returns is (a) stronger when the transaction involves larger brands and (b) weaker when the seller has a more focused business portfolio.

The impact of trading brands on the scope of the acquirer's/seller's brand portfolio also may be important. For example, management research 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). In line with this logic, the more closely a brand relates to the buyer's existing brand portfolio, the more the buyer should benefit from the acquisition, due to potential synergies between closely related brands that are unlikely for unrelated brands (Barney 1988). Conversely, firms that dispose of brands that are unrelated to the rest of their brand portfolios should enjoy stronger positive abnormal returns because these brands are unlikely to gain any significant "parenting advantage" from being owned by that firm (Bergh, Johnson, and Dewitt 2008). There should be a higher value-in-use for such brands in the portfolio of another firm, which should lead to a higher market price paid for the brand than its current value-in-use to the seller.

We anticipate that another brand portfolio characteristic moderates the effect of acquiring/selling brands that are more or less related to the rest of the firm's brand portfolio, namely, the relative positioning of the brand(s) involved in the transaction. We expect that when the brand(s) involved in the transaction are more closely related to the rest of the firm's portfolio, the perceived quality "spillover" effects of acquiring or selling that brand on the rest of the firm's brand portfolio are likely greater. This expectation is consistent with findings in brand extension and brand alliance research that indicate attributes associated with one brand are more likely to transfer to other brands when there is a greater similarity between the brands (e.g., Rao, Qu, and Ruekert 1999; Simonin and Ruth 1998).

H_{7a}: Acquirer abnormal returns are greater when it buys brand(s) that are more closely related to its existing brand portfolio.

H_{7b}: Seller abnormal returns are greater when it sells brand(s) that are more distantly related to its remaining brand portfolio.

H_8: The effect of relatedness on the acquirer's abnormal returns is stronger when the acquired brand(s) are positioned at higher quality and price points than the acquirer's existing brand portfolio.

H_9: The effect of relatedness on the seller's abnormal returns is stronger when the brand(s) sold are positioned at lower quality and price points than the seller's remaining portfolio.

Finally, as a consequence of some of these asset complementarities, buyers often outline the synergies they anticipate from integrating the acquired brand asset(s) into their existing brand portfolio, in ways that produce either costs savings or revenue enhancements (Capron and Hulland 1999). For example, it may be possible to sell an acquired brand through the firm's existing sales force, spreading selling costs over more brands and reducing the firm's average cost of goods sold. Alternatively, a newly acquired brand may be complementary to others in the firm's portfolio and enable cross-promotion opportunities and/or greater pricing power relative to channel members, producing revenue synergies. When such synergies are available and recognized by the acquirer, they should be associated with greater expected future cash flows from the brand acquisition.

We anticipate that the positive effects of such synergy announcements are moderated by a brand portfolio context effect, namely, the size of the brand asset involved in the transaction. Specifically, we expect the positive effect of anticipated synergies to be magnified in larger brand transactions because the absolute economic value of anticipated cost savings or revenue enhancements should be greater. Thus, we expect investors to react even more positively because of the scale of the likely synergy benefits involved.

H_{10}: Acquirer abnormal returns are greater when the acquired brands can be integrated into the acquirer's brand portfolio in ways that create (a) cost synergies and (b) revenue synergies.

H_{11}: The effect of (a) cost synergies and (b) revenue synergies from integrating the acquired brand(s) into the acquirer's brand portfolio on the acquirer's abnormal returns is stronger when the acquirer buys larger brands.

Method

Event studies have long been used to quantify the value of firms' marketing actions, and prior literature contains excellent summaries of this method (e.g., Srinivasan and Bharadwaj 2004). Briefly, 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 new information ("the event," in our case, news of an acquisition or sale of a brand) causes investors to expect that the firm will garner higher (lower) future cash flows, the firm's stock price rises (drops) in reaction. The stock's abnormal return—the difference between the stock's actual return at the event and its expected return according to general market movement—is a measure of the wealth effects (economic value) of the event (Kothari and Warner 2007). In line with the conventional view that markets move quickly to impound the present value of the long-run benefits of the event fully into security prices (McWilliams and Siegel 1997), we focus on abnormal returns observed at the event in our analysis.

Data

Sample

We focus on B2C firms because consumer spending represents more than 70% of U.S. gross domestic product, and brands occupy a central role in B2C business models. We created a sample of 322 publicly traded firms operating in 31 B2C industries, identified by Standard Industrial Classification (SIC) codes from the Center for Research in Security Prices (CRSP) and SDC Platinum databases. We present the details on these industries and an illustrative list of firms in Appendix A. To identify brand acquisitions/disposals undertaken by these firms, we

searched the SDC Platinum database, firms' annual reports, and investor relations material and press releases posted on firms' websites. 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. We captured brand acquisitions and disposal events for these firms over a 15-year period (1994–2008).

Description of the Event

A disposal event is an announcement of a sale or pending sale of a brand, identified through a Factiva search of company news releases and press reports. An acquisition event is the announcement that an agreement has been reached to acquire a brand. When earlier press reports mentioned that a firm was negotiating to purchase the brand, we considered the earliest such announcement the event.[2] We removed brand acquisitions and disposals in non-G7 countries, which generally represent much smaller markets for the firms in our sample. We also removed those focused on the nonconsumer foodservice channel.

Forty-seven percent of the sample made at least one brand acquisition, and 29% made at least one disposal (48% made neither). Collectively these firms engaged in 775 brand acquisitions and 487 brand disposals during this period. Following standard practice, we removed events that contained confounding information pertaining to earnings announcements, stock splits, key executive changes, unexpected stock buybacks, or changes in dividends within the two–trading-day window surrounding the brand acquisition or disposal event (McWilliams and Siegal 1997). This step eliminated 237 of the 1,262 events. We dropped an additional 135 events because of data availability limitations (e.g., unavailable brand revenues). Following finance practices (e.g., Moeller, Schlingemann, and Stulz 2005), we also dropped the 9 brand acquisitions and 1 disposal that were not completed. Our final event sample therefore comprised 572 brand acquisition announcements and 308 brand disposal announcements.[3]

Variable Operationalization

Data for our variables came from secondary databases and coded information from press reports about the transaction that provided information about the brand, its competitive situation, and the firm and its motivations. We followed standard procedures in marketing literature for the textual coding (e.g., Rosa, Spanjol, and Porac 2004). For example, we used two independent coders with substantial brand management experience; each was blind to the hypotheses. We trained the coders on 20 events that were not part of the final sample. Following similar efforts in finance (Kaplan and Weisbach 1992), coders reviewed more substantial press reports of the transaction (typically four or five) for each. These sources included the original press releases, as well as the most detailed reports of the transaction (in terms of word count) in the national news (e.g., *Reuters*, *The New York Times*, *The Wall Street Journal*) and local press (e.g., *Cincinnati Post*). They provided a contemporaneous account of many features of the brand transactions and often have served as key sources for finance scholars (e.g., Kaplan and Weisbach 1992). We provide more detail on these reports in our discussion of the coding of specific variables. The coders recorded the data in the announcements using a standardized coding scheme. Intercoder agreement was high (>80% in each case; see Table 1 for specific values), and all instances of intercoder disagreements were discussed and resolved (Perreault and Leigh 1989). We next provide an overview of our hypothesized variable measures and brief depictions of the control variables. We detail all the variable operationalizations in Table 1.

Complementary assets. For our marketing capability measure, we used an input–output approach similar to those previously adopted. Following Srivastava, Shervani, and Fahey (1998), we viewed a firm's marketing capability as its ability to use available resources to create market-based, intangible asset value. We used a stochastic frontier estimation (SFE) marketing capability operationalization (e.g., Dutta, Narasimhan, and Rajiv 1999), for which the resource inputs are each firm's sales, general and administration; advertising expenditures (from COMPUSTAT); and number of trademarks owned (from the U.S. Patent and Trademark Office database). For the SFE output variable, we followed Simon and Sullivan (1993) and used the intangible asset value of the firm (Tobin's q), adjusted for the variance accounted for by the firm's technology (research-and-development spending and number of patents) and management quality (firm's "management quality" score from *Fortune*'s Most Admired American Companies database for the 486 observations for which it was available; top management team compensation relative to the industry average as an alternative management quality indicator for the remaining 398 observations).[4] Our measure of marketing capabilities correlated significantly positively with firms' future cash flow performance ($p < .001$), indicating some face validity of our measure.

For distribution resources, the acquirer had superior channel relationships if press reports indicated that it had existing channel relationships or networks that it could leverage to expand the acquired brand's sales (implicitly

[2]More than 80% of announcements refer to agreements reached. Subsequent analyses indicate that announcement type (e.g., "in negotiation" vs. "closing" a deal) does not affect investor reactions. For a small number of events (<6%) unsubstantiated (by the firm) rumors predated our event announcements, but subsequent analyses suggested that they did not have a significant effect on the abnormal returns to the event announcements.

[3]Our sample size is comparable with other event studies. Meta-analyses in M&A literature report average sample sizes of 269 (Stahl and Voigt 2008, across 9 studies) and 221 acquisition events (King et al. 2004, across 127 studies). King et al. (2004) also report average divesture event sample sizes of 153 across 33 studies.

[4]We regressed these technology and management quality indicators on the firm's Tobin's q and used the residual from this regression as the market-based value created by the firm output indicator in our SFE. The correlation between the two indicators of management quality was greater than .82, and the correlation between marketing capability measures using either alternative indicator of management quality alone was greater than .93.

TABLE 1
Operationalization of Independent and Control Variables

Variable	Source	Definition/Operationalization
A: Variables in the Heckman Selection Procedure		
Firm marketing emphasis$_{t-1}$	COMPUSTAT	Advertising spending (t − 1)/sales (t − 1) (Bhadir, Bharadwaj, and Srivastava 2008).
Firm technology emphasis$_{t-1}$	COMPUSTAT	Research-and-development spending (t − 1)/sales (t − 1) (Bahadir, Bharadwaj, and Srivastava 2008).
Leverage$_{t-1}$	COMPUSTAT	Sum of long-term debt and debt in current liabilities (t − 1)/total assets (t − 1).
Financing$_{t-1}$	COMPUSTAT	Debt in current liabilities (t − 1)/total assets (t − 1).
Cash on hand$_{t-1}$	COMPUSTAT	Cash and short-term investments (t − 1)/total assets (t − 1).
Year indicator variables		Dummy variables for years 1994–2007.
Favorable brand acquisition (disposal) decisions$_{t-1}$	Compiled	Number of firm brand acquisition (disposal) events in the prior year with a positive abnormal return at the event (0, 0).
Not favorable prior brand acquisition (disposal) decisions$_{t-1}$	Compiled	Number of firm brand acquisition (disposal) events in the prior year with a negative abnormal return at the event (0, 0).
B: Variables in the Brand Acquisition and Disposal Analyses		
Hypothesized Variables		
Firm's marketing capability	COMPUSTAT, USPTO, AMAC	See text.
Superior complementary distribution resources[b]	Press reports	The acquirer indicated that a reason for the acquisition was to expand the acquired brand's sales by leveraging the firm's existing distribution strengths (e.g., Procter & Gamble's purchase of Tambrands) ($\alpha = .85$).
Inferior distribution resources available for the brand[b]	Press reports	If the firm decided to sell because the brand's distribution resources were inferior to those of its competitors, preventing it from competing effectively, as identified from press reports ($\alpha = .93$).
Positioning (relative)	Press reports	If the brand was described as high-end (prestige, luxury, premium) or low-end (budget, value, economy), compared with the firm's other brands, to ascertain overall effect on the portfolio (e.g., LVMH buying Fendi, a luxury brand, would be coded as 0, considering the other brands in LVMH's portfolio, such as Louis Vuitton; Callaway Golf acquiring the value-brand Top-Flite was coded −1) ($\alpha = .84^a$, $.90^b$).
Multiple brands involved	Press reports	More than one brand involved in the transaction ($\alpha = .99^a$, $.97^b$).
Related: same industry code[a]	SDC Platinum, COMPUSTAT	If the four-digit SIC codes for the sample firm (COMPUSTAT Segments) and target (SDC Platinum) in the transaction were the same.
Unrelated: different industry group[b]	SDC Platinum, COMPUSTAT	If the four-digit SIC codes for the firm (COMPUSTAT Segments) and the brand differed in their first two digits (e.g., 2842 and 3291).
Cost synergies[a]	Press reports	If firm mentioned cost savings or efficiencies due to synergies in administration, distribution, manufacturing, operations, purchasing, or other functional areas (Chatterjee 1986) ($\alpha = .92$).
Revenue synergies[a]	Press reports	If the firm predicted that the combination would generate more revenue than the individual brands would be able to generate. The most common source was cross-marketing or cross-promotional activities (Houston, James, and Ryngaert 2001) ($\alpha = .92$).
Control Variables		
Firm leverage$_{t-1}$	COMPUSTAT	Sum of long-term debt and debt in current liabilities$_{t-1}$/total assets$_{t-1}$
Firm financing$_{t-1}$	COMPUSTAT	Debt in current liabilities$_{t-1}$/total assets$_{t-1}$
To enhance firm growth[a]	Press reports	If the firm identified growth as a rationale for the purchase ($\alpha = .82$).
To enhance firm profitability[a]	Press reports	If the firm identified profitability as a rationale for the purchase ($\alpha = .93$).
To strengthen firm's core[a]	Press reports	If the firm identified core strengthing as a rationale for the purchase ($\alpha = .85$).

TABLE 1
Continued

Variable	Source	Definition/Operationalization
B. Variables in the Brand Acquisition and Disposal Analyses		
To reduce debt[b]	Press reports	If the firm identified debt reduction as a use of the proceeds from the disposal ($\alpha = .99$).
To buy back shares[b]	Press reports	If the firm identified repurchase of shares as a use of the proceeds from the disposal ($\alpha = .98$).
Focus on faster growth brands[b]	Press reports	If the firm identified a focus on growth as a rationale for the disposal ($\alpha = .87$).
Focus on more profitable brands[b]	Press reports	If the firm identified a focus on profitability as a rationale for the disposal ($\alpha = .93$).
Focus on core brands[b]	Press reports	If the firm identified a focus on core brands as a rationale for the disposal ($\alpha = .98$).
Focus in operations	COMPUSTAT	$-1 \times$ prior year's concentric index, which reflects the percentage distribution of sales by SIC segment for a firm, weighted by the SIC distance between segment pairs (0 if in same three-digit SIC group, 1 if in same two-digit but different three-digit SIC groups, and 2 if in different two-digit SIC groups).
Brand provides new-to-the-firm distribution resources[a]	Press reports	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 ($\alpha = .85$).
Relative size of brand	COMPUSTAT, press reports	Prior year sales of the brand/prior year sales of the firm. Brand sales were gleaned from press reports.
Brand equity	Press reports	If the brand was described as an esteemed brand by market observers (e.g., "iconic") or identified as the market leader ($\alpha = .89^a, .88^b$).
Recent brand performance	Press reports	If the brand's past year performance (growth of revenue or market share) was described as better (1) or worse (–1) than other brands in its category, as coded from press reports ($\alpha = .88^a, .93^b$).
Purchased entire firm[a]	Press reports	When purchasing the brand involves acquiring an entire firm (e.g., Kraft's acquisition of Balance Bar) ($\alpha = .96$).
Brand was purchased/sold in an auction	Press reports	If there were multiple bids/offers for the brand, according to press reports ($\alpha = .88^a, .87^b$).
Analyst perception of brand's price	Press reports	Whether price paid was deemed high or low by market observers (i.e., analysts), coded from press reports. For acquisitions, high (–1) and low (1); for disposals, high (1) and low (–1) ($\alpha = .94^a, .96^b$).
Stated earnings impact	Press reports	Whether the acquisition/disposal would have an accretive (1), dilutive (–1), or no impact (0) on the year's earnings, coded from press reports of the transaction ($\alpha = .94^a, .95^b$).
One-time earnings adjustment (cents/share)[b]	Press reports	If the firm announced that the disposal would have a one-time impact on earnings, due to a gain or one-time charge. Expressed in cents per share and identified from press reports.
Service-related industries	SDC Platinum, press reports	Hotel, restaurant, and gaming brands (SIC 5461, 5499, 5611, 5812, 7011, 799x). Also includes retail-focused brands (i.e., brands with retail stores, such as Godiva).
Long interpurchase cycle industries	SDC Platinum	Brands purchased, on average, less frequently than every three months, such as clothing, household, and fitness brands (SIC 225x, 2299, 23xx–25xx, 2844, 30xx–32xx, 34xx, 35xx, 37xx, 38xx, 394x, 395x, 3961, 399x, 4961, 5136, 5139, 5651, 549x, 7011, 723x, 799x) (Morgan and Rego 2009).
Adult industry	SDC Platinum	Alcohol, tobacco, and gaming brands (SIC 2082–2085, 21xx, 7011, 7999).
Food and beverage	SDC Platinum	SIC 01xx, 02xx, 20xx, 2833, 514x.
Additional Paired Variables		
Relative marketing capability	As above	Acquirer marketing capability – disposing firm marketing capability.
Relative distribution strength	As above	Superior complementary distribution resources[a] + firm has inferior distribution resources available for the brand[b] – acquired brand provides new-to-the-firm distribution resources.[a]
Relative acquirer leverage	As above	Prior year leverage of acquirer – prior year leverage of disposer.
Relative acquirer financing	As above	Prior year financing of acquirer – prior year leverage of disposer.
Brand revenue transferred		Coded from press reports.
Relative size transfer		Size to acquirer—size to disposing firm. Size is brand revenue/prior year firm revenue.

TABLE 1
Continued

Variable	Source	Definition/Operationalization
B: Variables in the Brand Acquisition and Disposal Analyses		
Additional Paired Variables		
Relative positioning transfer	As above	(Positioning[a] – positioning[b])/2.1 = both sides improve relative positioning through transfer, 0 indicates no net effect, and –1 indicates the transfer produces a down-market shift.
Relative relatedness of the brand to the acquirer	SDC platinum COMPUSTAT	Using brand and firm SIC codes. 1 = brand is more central to acquirer than seller, 0 = same distance, and –1 = brand is less central to buyer than seller.
Focus difference between buyer and seller	COMPUSTAT	Prior year level of focus of the buyer – prior year level of focus of disposer. Level of focus = –1 × concentric index, as identified previously.
Analyst perception of brand's price	As above	As defined previously, from seller's perspective. 1 = high price paid, –1 = low price paid.

[a]Acquisition sample and analyses only.
[b]Disposal sample and analyses only.
Notes: α indicates the interrater agreement (Perrault and Leigh 1989).

indicating stronger channel relationships than the seller firm). For example, Hershey's acquisition press release announced that its extensive distribution network would allow it to broaden the consumer reach of the premium dark chocolate brand Scharffen Berger. Our measure of superior distribution resources correlated positively with both firm revenue ($p < .04$) and firm emphasis on marketing ($p < .01$), in support of the face validity of our coding. Similarly, we captured the relative weakness of the seller's channel relationships compared with rivals, when it was mentioned as a reason for the brand disposal. For example, Cadbury cited its lack of distribution "clout" as a key motive for its disposal of its non-U.S. beverage brands in 1998. Our measure of inferior distribution relationships correlated positively ($p < .01$) with seller disposals of brands in completely different sectors from the firms' main businesses, which provided face validation of our coding.

In terms of brand portfolio characteristics, positioning reflected the price–quality tier of the traded brand, ranging from value/economy (lower) to premium (higher) (Morgan and Rego 2009). It was judged by coders relative to the acquirer's/seller's existing brand portfolio. We compared these codes with perceived quality data from Equitrend for 24 observations and found a strong correlation ($p < .04$) between the coded positioning ratings and the traded brand's perceived quality difference from the average quality rating of the acquirer's/seller firm's other brands, in strong support of our measure. We captured multiple brands in the transaction with a binary variable. The traded brand's relatedness to the buyer's/seller's brand portfolio was based on a SIC comparison between the brand (SDC Platinum) and the closest firm segment (COMPUSTAT). Similar to previously used classifications, those sharing the same four-digit SIC code were considered related, and those with different two-digit codes considered unrelated (Hayward and Hambrick 1997). For brand acquisitions, we also captured managerial forecasts of likely synergies from cost savings and revenue enhancements from the press announcements (e.g., Houston, James, and Ryngaert 2001).

Controls. At the firm level, we included firm leverage and financing considerations as controls in the analyses because these capital structure characteristics are related to acquisition announcement returns (Bruner 1988; Maloney, McCormick, and Mitchell 1993). A content analysis of brand acquisition and disposal announcements revealed that they were often motivated by a firm's desire to enhance growth or profitability or to further strengthen or focus on its core business. Following the work of Kaplan and Weisbach (1992), coders captured these commonly stated motives because such pronouncements may shape expectations about future cash flows. For disposals, we also coded two commonly announced uses of the proceeds, debt repayment and share repurchases, because they can affect the seller's abnormal returns (Lang, Poulsen, and Stulz 1995). We controlled for the degree of focus in the acquirer/seller firm's business by including the reverse of each firm's concentric index, a widely used measure of diversification in management literature (Montgomery and Hariharan 1991).

At the brand level, considering the performance benefits of strong brands, we controlled for the brand equity of traded brands. Drawing on Park and Srinivasan's (1994) work, we measured brand equity according to whether (1) the traded brand was the market share leader or (2) stock market analysts indicated in press reports that the brand was "strong," "esteemed," or "iconic." We also accounted for prior brand performance, which may affect acquisition premiums (Hayward and Hambrick 1997). We controlled for the relative size of the traded brand using the brand asset's prior year sales relative to the firm's prior year sales (Seth, Song, and Pettit 2002). Furthermore, we controlled for whether the brand provided new-to-firm distribution resources, in the form of new routes to market or access to new channels, using codes based on available press reports.

At the transaction level, coders captured whether there was an auction or competition for the brand asset, as indicated by reports of multiple bidders (Bradley, Desai, and Kim 1988). Coders further accounted for analyst perceptions of the transaction's price and its expected impact on firm earnings (one-time accounting gains or losses,

accretive/dilutive impact on earnings). The coders indicated whether an entire firm was acquired, along with its brand(s).

At the industry level, we controlled for different industry types. Their different characteristics, such as levels of regulation in adult categories (e.g., alcohol, tobacco), interpurchase cycle times, and channel dynamics (e.g., particularly strong retail power in food and beverage industries), may affect the firm's ability to generate cash flows from a brand (Morgan and Rego 2009). We also controlled for whether the brand was primarily service based because the intangibility of services could affect the acquirer's ability to redeploy the acquired brand asset(s).

Descriptive Statistics

Descriptive statistics for all variables are reported in Table 2, and correlations among the variables in the acquisition and disposal samples are reported in the Web Appendix (see the section Theme 1; http://www.marketingpower.com/jm_webappendix).

Analyses

Event Study Analysis

We followed standard protocols for short-term event studies (Srinivasan and Bharadwaj 2004). We calculated the abnormal returns to brand acquisitions/disposals as the difference between the stock's actual return and its expected return, assumed to be a function of the rate of return of the benchmark market portfolio for the event day.[5] We used the single-factor market model rather than the multifactor Fama–French (1993) approach to be able to compute abnormal returns for both U.S.- and non–U.S.-listed firms.[6] The benchmark model for the U.S.-listed firms in our sample was the return of the CRSP equal weighted market portfolio; for the non-U.S.-listed firms, we used the return of the relevant home country index (e.g., FTSE 100, DAX, CAC 40, S&P/TSX Composite, Swiss Market Index; Geyskens, Gielens, and Dekimpe 2002). Abnormal stock returns were obtained using *Eventus*®, and parameters of the market model were estimated over a 90-trading-day estimation window, ending 6 days before the event. For events confined to relatively few industries, cross-sectional dependence in the returns can bias the standard deviation estimate downward (MacKinlay 1997), inflating the associated test statistics. We therefore controlled for potential cross-sectional correlation in the abnormal returns by using the time-series standard deviation test statistic (Brown and Warner 1980).

[5]The abnormal return was $AR_{it} = R_{it} - (\hat{\alpha}_i + \hat{\beta}_i R_{mt})$, where the abnormal return A for stock i on day t was the difference between the stock's actual return (R_{it}) and its expected return, a function of the rate of return of the benchmark market portfolio for day t($\beta_i R_{mt}$), an intercept (α_i), and a residual term (ε_{it}), that we assumed was not autocorrelated and homoscedastic, with $E[\varepsilon_{it}] = 0$. In addition, $\hat{\alpha}_i$ and $\hat{\beta}_i$ were ordinary least squares estimates of α_i and β_i.

[6]Fama–French factors were not available for non–U.S.-listed firms, so we could not generate Fama–French three-factor (or four-factor) benchmark model abnormal returns for the full portfolio of firms. However, we examined the results using such returns for the reduced U.S.-only sample as a robustness check.

Analysis of Abnormal Returns with the Heckman Procedure

We detail all the regression equations used in Appendix B. We used a two-stage Heckman (1979) procedure to account for any potential selection bias because there may be systematic differences between firms that engaged in brand acquisition/disposal and those that did not. In the first stage (Equation 1), we applied a probit selection model to the full sample of 322 firms to estimate the probability that a firm would engage in brand acquisition/disposal in that year. The resulting parameters served to calculate the Mills lambda, which then was included as an additional regressor in the second-stage hypothesis testing regressions to control for potential selection bias. In Equation 1, the value of the dependent variable was 1 if the firm acquired (disposes) of a brand in year t and 0 if it did not. In this selection equation, we included factors likely to affect the firm's decision to engage in such activities (summarized in Table 1). We accounted for the marketing and technological strategic emphasis of the firm (Bahadir, Bharadwaj, and Srivastava 2008), which is likely to affect the relative advantage derived from the firm's brand portfolio. We also included measures of the firm's financial resources (leverage, financing, cash on hand), which are determinants of and affect the returns to firm acquisition and disposal activity (Maloney, McCormick, and Mitchell 1993). Year dummies accounted for any temporal variance in the market environment that might influence brand portfolio reconfiguration decisions. Finally, we accounted for the degree to which the firm's recent brand acquisition/disposal decisions were favorably (unfavorably) viewed by analysts because such reactions may influence current activity. The descriptive statistics and results for this first stage appear in the Web Appendix (see Theme 2; http://www.marketingpower.com/jm_webappendix).

The second stage of the Heckman procedure was a least squares regression on the abnormal returns, incorporating the Mills lambda and the hypothesized and control independent variables previously described to test our hypotheses about abnormal returns for the acquirer (Equation 2) and the seller (Equation 3) at the moment of the event.

Results and Discussion

Event Study Analysis

The average abnormal returns for windows surrounding the brand acquisition/disposal event date are in Table 3. All statistical tests are two-tailed. In studies of firm acquisition/divestment activity, it is common to center on the announcement date window (0, 0) (King et al. 2004) because in efficient capital markets, stock prices adjust quickly to impound the wealth effects of such activity (Wright and Ferris 1997), and longer windows offer greater possibilities for noise to affect results (Kothari and Warner 2007). For both our acquisition and disposal events, we observed the greatest number of abnormal returns for the event day, and there was no evidence of leakage. We therefore focused primarily on the (0, 0) window in our analyses. However, because we found a stronger average abnormal return (1.17% vs. .75%) for the (0, 1) window in our acquisition sample, we also examined this window for brand acquisitions.

TABLE 2
Descriptive Statistics

Variable (Number of Observations for Each Coded Categorization)	M	SD
Marketing capability	4.40/4.31	.39/.48
Superior/inferior complementary distribution resources (0 = 432/298, 1 = 140/10)	.24/.03	.43/.18
Positioning of brand (higher than rest of portfolio: 1 = 132/16, same: 0 = 413/264, lower: −1 = 27/28)	.18/–.04	.49/.38
Multiple brands acquired/disposed (0 = 316/147, 1 = 256/161)	.45/.52	.50/.50
Related: same industry (0 = 367, 1 = 205)	.36	.48
Unrelated: different major industry groups (0 = 243, 1 = 65)	.21	.41
Cost synergies (0 = 441, 1 = 131)	.23	.42
Revenue synergies (0 = 532, 1 = 40)	.07	.26
Firm leverage$_{t-1}$	.30/.30	.22/.13
Firm financing$_{t-1}$	.06/.08	.07/.07
Firm focus in operations$_{t-1}$	–.23/–.34	.25 /.24
Strategic logic for brand acquisition: Enhance firm growth (0 = 303, 1 = 269)	.47	.50
Strategic logic for brand acquisition: Enhance firm profitability (0 = 525, 1 = 47)	.08	.27
Strategic logic for brand acquisition: Strengthen the firm's core (0 = 250, 1 = 322)	.56	.50
Strategic logic for brand disposal: Reduce debt (0 = 259, 1 = 49)	.16	.37
Strategic logic for brand disposal: Buy back shares (0 = 295, 1 = 13)	.04	.20
Strategic logic for brand disposal: Focus on faster growing brands (0 = 214, 1 = 94)	.31	.46
Strategic logic for brand disposal: Focus on more profitable brands (0 = 258, 1 = 50)	.16	.37
Strategic logic for brand disposal: Focus on core brands (0 = 110, 1 = 198)	.64	.48
Acquired brand provides new-to-the-firm distribution resources (0 = 494, 1 = 78)	.14	.34
Relative size of brand acquisition (acquired brand's sales/acquirer's sales)	.15	.55
Relative size of brand disposal (disposed brand's sales/prior year firm sales)	.05	.10
Brand equity of acquired/disposed brand (strong: 1 = 244/90, 0 = 324/213, weak: −1 = 4/5)	.42/.28	.51/.48
Recent brand performance (better than category rivals: 1 = 83/14, 0 = 420/231, worse: −1 = 69/63)	.02/–.16	.52/.47
Acquirer bought the entire firm (0 = 279, 1 = 293)	.51	.50
Brand was purchased/disposed in an auction (0 = 511/295, 1 = 61/13)	.11/.04	.31/.20
Analyst perception of purchased price paid (high price: −1 = 41, 0 = 517, low price: 1 = 14)	–.05	.31
Analyst perception of disposal price achieved (high price: 1 = 11, 0 = 288, low price: −1 = 3)	.03	.21
Acquisition/disposal effect on ongoing earnings (accretive: 1 = 150/3, 0 = 392/288, dilutive: 1 = 30/17)	.21/–.05	.52/.25
One-time charge/gain (cents per share)	–.02	.59
Service (0 = 490/280, 1 = 82/28)	.14/.09	.35/.29
Long purchase cycle (0 = 392/249, 1 = 180/59)	.31/.19	.46/.39
Adult (0 = 532/286, 1 = 40/22)	.07/.07	.26/.26
Food and beverage (0 = 302/131, 1 = 270/177)	.47/.57	.50/.50

Variable	M	SD
$\$\Delta$ Wealth$_{acquirer+seller}$ (millions)	181.99	834.10
Relative acquirer marketing capability	.12	.67
Relative acquirer distribution strength	.01	.46
Relative leverage level of acquirer	.02	.28
Relative financing level of acquirer	–.01	.09
Brand revenue transferred	259.89	560.50
Multiple brands transferred	.57	.50
Relative size transfer	.07	.22
Relative positioning transfer	.08	.25
Relative relatedness of brand to acquirer	.04	.85
Focus difference between buyer and seller	.12	.34
Auction	.06	.24
Price	–.04	.23
Acquirer cost synergies	.20	.40
Acquirer revenue synergies	.03	.16

Notes: Paired sample n = 111. Acquisition sample n = 572. Disposal sample n = 308.

TABLE 3
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
Acquisition Sample				
−3	.02	.19	288 of 572	−912
−2	−.00	−.08	265 of 572	−5,250
−1	.03	.33	272 of 572	−1,809
0	.75	8.30**	327 of 572	15,518**
1	.42	4.70**	307 of 572	11,081*
2	.08	.87	284 of 572	90
3	.13	1.39	274 of 572	970
−1,0	.78	6.10**	309 of 572	12,640*
0,0	.75	8.30**	327 of 572	15,518**
0,1	1.17	9.19**	326 of 572	17,760**
−1,1	1.20	7.69**	320 of 572	16,814**
Disposal Sample				
−3	.04	.33	151 of 308	202
−2	−.01	−.13	145 of 308	−1,608
−1	.16	1.38	164 of 308	1,228
0	.88	7.68**	191 of 308	8,264**
1	.11	.95	159 of 308	389
2	−.05	−.48	147 of 308	−856
3	−.06	.50	154 of 308	−545
−1, 0	1.03	6.40**	181 of 308	7,411**
0, 0	.88	7.68**	191 of 308	8,264**
0, 1	.99	6.09**	189 of 308	7,707**
−1, 1	1.14	5.77**	184 of 308	7,007**

*$p \leq .01$ (two-tailed test).
**$p < .001$ (two-tailed test).

Robustness Tests

Sensitivity analyses indicated that our hypothesis testing results were robust to alternative expected return models, benchmark indices, and statistical tests. The pattern of results reported in Tables 3–5 remained unchanged when we used the Fama–French (1993) three-factor model or the three-factor-plus-momentum model computations of abnormal returns for the U.S.-only subsample. Our hypothesis testing results also were consistent if we used a value-weighted index. In addition, the significance of our results remained unchanged when we estimated the expected return model using a window from either 260 to 10 days before the event or 300 to 46 days before the event (e.g., Gielens et al. 2008). We also checked to ensure that the cross-sectional results for both the acquisition and disposal samples were unaffected by the method of payment given or received for the brand (all cash, all stock, or a mixture), as identified in the SDC Platinum database. Finally, we confirmed, in a series of subsample comparisons, that the results of our analyses were consistent across different subperiods within the period covered by our data.

Brand acquisition announcements were associated with a significant positive stock price move for the buying firm, with an abnormal return of .75% on average during the (0, 0) window, ($t = 8.30$, $p < .001$).[7] On the event date, 327 of the 572 abnormal returns were positive. Furthermore, the Wilcoxon signed rank (Z) test, a more powerful nonparametric test that incorporates the sign and magnitude of the abnormal returns, also was significant ($Z = 15{,}518$, $p < .001$), which suggested that outliers did not overly influence our results (McWilliams and Siegel 1997). The acquisition announcement was associated with an average gain of $137 million in shareholder value on the event date. Thus, whereas resource-based theory indicates that sellers have an information advantage with regard to a brand's value-in-use (e.g., Barney 1986), our results indicated that most firms buying brands did so only when they could acquire the brand at a price that would allow them to create shareholder value.

For seller firms, we found that the announcement of brand disposals was associated with a significant mean stock price increase of .88% during the (0, 0) window ($t = 7.68$, $p < .001$), and 191 of the 308 abnormal returns were positive. The Wilcoxon signed rank test was also significant ($Z = 8{,}264$, $p < .001$). The disposal announcement was associated with an average gain of $283 million in shareholder value. Although investors thus recognized the value of brand assets for generating a firm's future cash flows, when a more valuable "next-best" use for a brand could be identified, investors rewarded firms for selling their brand assets.

Abnormal Returns Analysis

We tested our hypotheses with a regression of the standardized abnormal returns on the independent variables and controls. The regression equations (Equations 2 and 3), detailed in Appendix B, led to the results in Tables 4 and 5. Our regressions of the (0, 0) abnormal returns on brand acquisition and disposal events offered significant explanatory power, with adjusted R-square values of .19–.26 and

[7]All t-statistics reported came from time-series standard deviation tests.

TABLE 4
Results from Second-Stage Heckman Test of the Standardized Abnormal Return for the Event Day for the Brand Acquisitions (Percentage)

		0, 0 Window		0, 1 Window	
		Model 1	Model 2	Model 1	Model 2
	Expected	Estimate	Estimate	Estimate	Estimate
Hypothesized Factors					
H_{1a}: Marketing capability	+	.66**	.58**	.67**	.60**
H_{2a}: Superior distribution resources	+	.07	−.05	.09	−.06
H_{3a}: Relative positioning of brand	+	.87***	.86***	1.05***	1.03***
H_{4a}: Multiple brands acquired	−	.25	.11	.23	.04
H_{7a}: Related: same industry	+	.08	−.03	.04	−.04
H_{10a}: Cost synergies	+	.89**	1.00***	1.32***	1.46***
H_{10b}: Revenue synergies	+	−1.68***	−1.33**	−1.48**	−1.07*
Interactions					
H_{5a}: Multiple brands × brand size	−		−3.04***		−3.75***
H_{5b}: Multiple bands × focus	+		−.12		−.39
H_8: Related × positioning	+		1.36**		1.38**
H_{11a}: Cost synergies × brand size	+		2.03**		3.34***
H_{11b}: Revenue synergies × brand size	+		−5.10***		−6.38***
Firm-Level Controls					
Firm leverage$_{t-1}$		1.43*	1.55*	1.06	1.18
Firm financing$_{t-1}$		−.80	−1.03	1.61	−1.81
Strategic logic: growth		−.19	−.11	−.66	−.53
Strategic logic: enhance profitability		.04	−.02	−.16	−.18
Strategic logic: strengthen core		−.37	−.39	−.35	−.39
Degree of focus		−.07	.35	.01	.47
Brand-Level Controls					
Acquired new-to-firm distribution		.87**	.82**	.80*	.74*
Relative size of acquired brand		1.47***	.99**	1.99***	1.36***
Brand equity of acquired brand		.34	.47*	.63*	.75**
Recent brand performance		.24	.24	.31	.30
Transaction-Level Controls					
Bought entire firm		−.61**	−.58*	−.52*	−.49*
Acquired in an auction		−.85*	−.92*	−1.00*	−1.10*
Analyst perception of price		1.76***	1.83***	1.58***	1.62***
Impact on earnings		−.10	−.08	.14	.19
Industry-Level Controls					
Service		.18	.21	.20	.23
Long purchase cycle		.01	.06	−.29	−.22
Adult		−.57	−.08	−1.07	−.50
Food and beverage		−.26	−.28	−.36	−.39
Mills lambda		.31	.41	.58	.72
Sample size		572	572	572	572
F-value (*p*-value)		6.29 (<.001)	7.43 (<.001)	5.43 (<.001)	6.39 (<.001)
Adjusted R-square		.19	.26	.17	.23

*$p \leq .05$ (two-tailed test).
**$p \leq .01$ (two-tailed test).
***$p < .001$ (two-tailed test).
Notes: Highest variance inflation factor is less than 2.5.

.35–.38, respectively, and the (0, 1) abnormal returns to brand acquisition event regressions had adjusted R-square values of .17 and .23, respectively. None of the industry controls were significant, so our findings were generalizable across our acquisition and disposal samples.

In terms of the hypothesis testing results, we observed some interesting asymmetries in how investors respond to the complementary assets detailed in H_1 and H_2. We found that stronger acquirer marketing capabilities were positively associated with acquirer abnormal returns, but superior acquirer distribution resources were not, in support of H_{1a} but not H_{2a}. Conversely, for brand disposals, we found that weaker seller marketing capabilities were not associated with seller abnormal returns, but weaker distribution resources were, in support of H_{2b} but not H_{1b}. One rationale for this asymmetry with respect to firms' marketing capabilities is that they are difficult for investors to observe. Thus, investors may be more reliant on firms' announcements to identify marketing capabilities. Whereas buyers may highlight their superior marketing capabilities as a rationale for a brand acquisition, sellers are less likely to draw attention

TABLE 5
Results from Second-Stage Heckman Test of the Standardized Abnormal Return for the Event Day for the Brand Disposals (0, 0) (Percentage)

Dependent Variable: (0, 0) Abnormal Return	Expected	Model 1 Estimate	Model 2 Estimate
Hypothesized Factors			
H_{1b}: Marketing capability	−	.16	.12
H_{2b}: Inferior distribution resources	+	1.64***	1.31**
H_{3b}: Relative positioning of brand	−	−.76**	−.69**
H_{4b}: Multiple brands sold	+	.36*	.56**
H_{7b}: Unrelated: different industry	+	.75**	.68*
Interactions			
H_{6a}: Multiple brands × brand size	+		11.85***
H_{6b}: Multiple brands × focus	−		.08
H_9: Unrelated × positioning	−		1.36
Firm-Level Controls			
Firm leverage$_{t-1}$		.76	.81
Firm financing$_{t-1}$		−2.07	−2.94
Strategic logic: reduce debt		−.16	−.03
Strategic logic: share buy-back		1.72***	1.78***
Strategic logic: faster growth		−.72**	−.72**
Strategic logic: more profitable brands		.62*	.55*
Strategic logic: Core brands		−.23	−.23
Degree of focus		−1.02*	−.99*
Brand-Level Controls			
Brand equity of disposed brand		−.16	−.16
Recent brand performance		−.40	−.37
Relative size of brand sold		11.38***	7.89***
Transaction-Level Controls			
Disposed in an auction		−.49	−.58
Analyst perception of price		2.15***	2.17***
Impact on earnings		.06	.06
One-time charge to earnings/gain		−.73***	−.77***
Industry-Level Controls			
Service industry		.06	.39
Long purchase cycle industry		−.11	−.11
Adult industry		.02	.21
Food & beverage industry		.24	.29
Mills lambda		.25	.25
Sample size		308	308
F-value (p-value)		7.60 (<.001)	7.66 (<.001)
Adjusted R-square		.35	.38

*$p \leq .05$ (two-tailed test).
**$p \leq .01$ (two-tailed test).
***$p < .001$ (two-tailed test).
Notes: Highest variance inflation factor is less than 2.5.

deliberately to their relatively weak marketing capabilities as a reason for disposing of a brand asset.

In contrast, if a buyer's complementary channel relationships were easier to observe by both the seller and investors, it is likely to be reflected in the price paid for the brand asset and therefore not affect abnormal returns. This reasoning is consistent with the significant negative correlation we observed between the buyer's channel relationships and analyst perceptions of the price paid for the brand. Meanwhile, from a selling perspective, investors' positive reactions to announcements detailing inferior channel relationships as a rationale for sale suggested that it was viewed as a strong signal that the seller would be able to better generate cash flows using its other assets.

From a brand portfolio perspective, consistent with both H_{3a} and H_{3b}, we found that acquirer abnormal returns were greater when they bought brands with a higher quality/price positioning than the firm's existing portfolio, whereas selling such brands was associated with lower seller abnormal returns. This finding supported existing brand literature that establishes the value of brands with higher quality/price positioning and suggested that it could spill over and affect the value of the firm's entire brand portfolio.

From a brand portfolio size perspective, we found no support for the main effect in H_{4a}, which posited lower acquirer abnormal returns from buying multiple brands. However, this relationship was significant for relatively larger brand acquisitions, in support of H_{5a}. That is, the additional complexity of managing larger brand portfolios concerned investors only when the acquisition was large enough to make a material difference to the complexity of

the firm's overall brand portfolio. Conversely, we found that selling multiple brands was associated with greater positive seller abnormal returns, and this benefit increased when they sold larger brands, in support of both H_{4b} and H_{6a}. Meanwhile, our control variable results showed that buying an entire firm, along with its brand assets, was negatively associated with acquirer abnormal returns, in support of the commonly observed "winner's curse" phenomenon in M&A literature (e.g., Varaiya 1988). In combination with our results related to multiple brands, this finding indicates that the winner's curse is not a function of the additional complexity or valuation uncertainty associated with buying/selling more brands. The source of the curse is more likely associated with the number of different types of assets being valued and the costs of integrating them into the buyer's organization. Finally, we found no evidence that the effect of either buying or selling multiple brands depended on the degree of focus in the firm's brand portfolio, providing no support for either H_{5b} or H_{6b}.

In terms of brand portfolio scope, buying brands in the same industry as the firm's existing portfolio (H_{7a}) was not generally associated with greater acquirer abnormal returns. However, in support of H_8, acquirer returns to buying brands in the same industry were greater when those brands had a higher quality/price positioning. Therefore, the positive positioning spillover effects from the acquired brand to the firm's overall brand portfolio are likely greater when the firm's brands sell in more closely related markets. Conversely, selling brand assets unrelated to the firm's remaining portfolio led to greater abnormal returns for sellers (H_{7b}), regardless of the relative quality and price points of the disposed brands (H_9). Therefore, investors see some value in "sticking to the knitting" from a brand portfolio scope perspective.

Finally, from a brand portfolio synergy perspective, in support of H_{10a}, buyers' anticipated cost savings were associated with greater acquirer abnormal returns. In support of H_{11a}, this effect was enhanced further by acquiring larger brands. However, unexpectedly, we found that revenue synergy announcements were associated with significantly *lower* acquirer abnormal returns, in contrast with H_{10b}, but in support of H_{11b}, this effect was exacerbated by the purchase of larger brands. This finding was consistent with finance research that suggests the bulk of shareholder M&A gains come from cost savings and that investors are more skeptical of joint revenue projections (e.g., Houston, James, and Ryngaert 2001). One interpretation of these results is that investors believe buyers make revenue synergy announcements when managers expect a negative investor reaction to the transaction for some other reason. For example, our data suggested that revenue synergy announcements correlated with the acquisition of relatively low-quality-/price-positioned brands, but cost synergies did not. Managers expecting negative reactions may seek to deflect them by pointing to potential revenue synergy upsides, and this tactic may be transparent to investors.

Paired Events Analysis

The preceding analyses provided insights from the perspective of acquiring and disposing firms and their respective shareholders. An additional perspective highlighted in M&A literature is the total economic value of the transaction; does it produce an overall net increase in wealth? To investigate this question, we also examined paired events of brands sold by one firm and bought by another in our sample during the study period. Our data contained 111 paired transactions involving 96 different firms. We measured the total economic value of these transactions as the sum of the dollar value change in combined shareholder wealth (market value) of the acquiring and disposing firms at the announcement (Bradley, Desai, and Kim 1988) (see Appendix B).

To reflect the overall shareholder perspective, we combined the acquiring and disposing firm characteristics reported in the previous regression models to capture the aggregate characteristics surrounding the transaction. Combined firm-level variables reflected whether the acquired brand was now a part of a firm with relatively (to the seller) stronger (weaker) resources and capabilities, which may lead to the brand being deployed in higher (lower) value-creating uses. Portfolio- and brand-level variables were restructured to capture the net effects of the brand transfer across the two firms' brand portfolio configurations. This procedure reflected any potential synergies created through the reconfiguration of the two brand portfolios (beyond those explicitly mentioned by the firms). In the interest of parsimony, factors that were not significant in the prior acquisition and disposal hypothesis testing analyses were not incorporated in this analysis. Drawing on the arguments we presented for our hypotheses, we expected the economic value produced (or destroyed) by a brand transaction to be a function of (1) relative resource/capability differences between the acquirer and seller and (2) the effect of the transaction on the acquirer's and seller's brand portfolios. The regression model for this analysis is in Appendix B (Equation 5), and the descriptive statistics for the pairs variables are in Table 1, with correlations in the Web Appendix (see Theme 1; http://www.marketingpower.com/jm_webappendix).

The univariate statistics (Table 2) suggested that on average, the 111 brand transactions for which we had paired data created positive economic value, with a net increase of more of than $181 million in the market value of the equity of the firms involved. Thus, brand disposal–acquisition transactions created net shareholder wealth. In explaining the variance in net wealth created, the regression results in Table 6 are informative. They clearly show that most of the variance can be explained by marketing capability differences between the seller and the buyer of the brand. The significant direct effect of seller–buyer marketing capability differences is consistent with our hypothesized logic that marketing capabilities are an important, firm-specific complement to the value-in-use of brand assets. However, this marketing capability difference effect weakened for transactions that involved larger and more brands. Our intuition for the former result is that superior marketing capabilities are particularly valuable in helping brands grow—which is harder to do for brands that are already large and better known. The latter result suggested that the benefits of superior marketing capabilities can be limited by the additional complexity and costs involved in managing larger brand portfolios.

TABLE 6
Pairs Analysis (Dependent Variable: Total Economic Value Produced by the Transaction)

	Model 1	Model 2
	Estimate	Estimate
Firm-Level Acquirer–Seller Differences Affecting Economic Value of Transaction		
Relative acquirer marketing capability	240.41*	240.24*
Relative acquirer distribution strength	54.72	52.21
Brand Portfolio Reconfiguration Outcomes Affecting Economic Value of Transaction		
Brand revenue transferred	−.01	−.09
Multiple brands transferred	−130.60	−162.63
Relative size transfer	−429.58	−332.89
Relative positioning transfer	584.07	516.63
Relative relatedness of brand to acquirer	−53.48	−40.47
Relative focus of buyer vs. seller	470.74	360.24
Interactions		
Marketing capability difference × brand size		−.36*
Marketing capability difference × number of brands		−444.22*
Controls		
Relative leverage level of acquirer	−202.72	−231.83
Relative financing level of acquirer	1,321.44	1,559.99
Auction	−497.96	−486.42
Price	−300.05	−468.87
Cost synergies	−122.12	−56.12
Revenue synergies	−823.94	−767.81
Sample size	111	111
F-value (*p*-value)	2.22 (<.05)	2.64 (<.01)
Adjusted R-square	.13	.19

*$p \leq .05$ (two-tailed test).

Implications

Our study has important implications for theory and practice. First, our results have contributed to literature on marketing capabilities. In contrast with Bahadir, Bharadwaj, and Srivastava (2008), who find that acquirer marketing capabilities do not affect the value placed on brands in the context of whole firm acquisitions, our results indicated that firms with strong marketing capabilities enjoy greater positive returns for the purchase of stand-alone brand assets. This finding identified a new mechanism by which marketing capabilities contribute to firm performance—as complementary assets, enhancing the value of acquired brands. In addition, our pairs analysis revealed that marketing capability differences between the seller and buyer of brand assets had direct effects on the net shareholder wealth created by the transaction. This result has provided some of the strongest evidence to date linking marketing capabilities to shareholder wealth creation, as well as empirical support for endogenous growth theory–based arguments about the value of marketing (e.g., Bahadir, Bharadwaj, and Parzen 2009).

Second, our results have contributed to growing marketing–finance literature. We have presented strong evidence that stock prices are informed by brand acquisition and disposal transactions. Our results also indicated that investors recognized and valued marketing-related complementary assets, such as firms' marketing capabilities, distribution capabilities, and brand portfolio resources, in evaluating brand transactions. Furthermore, we showed that investors take a wide range of additional firm, brand, and transaction factors into account in judging the likely future cash flow outcomes of brand acquisitions and disposals. We even found evidence that investors considered interactions among some of these factors. Overall, our results indicated that investors have a more nuanced understanding of brand and complementary marketing-related assets and how they contribute to firms' financial performance than may be commonly believed.

Third, we have contributed to emerging brand portfolio literature. We showed that brand portfolio factors account for significant variance in the returns to both brand acquisitions and brand disposals. Our results thus supported recent suggestions (e.g., Hill, Ettenson, and Tyson 2005; Morgan and Rego 2009) that larger brand portfolios can be more complex and costly to manage and that investors incorporate such considerations in their decisions. In addition, we have shown that brand positioning matters with respect to brand portfolio changes implemented by brand acquisitions and disposals. In particular, our results indicated the importance of upgrading the quality/price positioning of the firm's brand portfolio to investors' valuations of firm stock. We also showed that investors valued a greater focus in brand portfolio scope, achieved through brand disposals. Collectively these results provided strong support for recent studies that link brand portfolio characteristic levels with firm performance (e.g., Morgan and Rego 2009) and showed that changes to brand portfolio strategy also get recognized and valued by investors, making them an important mechanism by which marketers can create shareholder value.

Our findings also offer important new insights for managers. At a strategic level, we showed that trading brand assets is a viable mechanism for enhancing shareholder wealth, which has implications for firms' strategies and even business models. For example, growing by acquisition is a viable strategy in consumer industries, as long as managers focus on buying brand assets rather than entire firms and avoid the winner's curse, which we have confirmed. In pursuing such a strategy, firms' marketing capabilities play a critical role. Firms seeking to enhance shareholder value by growing through a strategy of brand acquisitions should begin by benchmarking their marketing capabilities and ensuring that they have the superiority in the marketing capabilities revealed in our study as necessary to execute this strategy successfully.

From a selling-side strategy perspective, our results also indicated that managers should not be concerned that investors view the disposal of brand assets as a sign of weakness or failure, particularly if analysts perceive that they have achieved a good price. Managers in consumer businesses can rebalance or refocus their brand portfolios without fearing that such brand asset sales will, in and of themselves, destroy shareholder value. Our results also suggested the intriguing possibility of a "brand nursery" business model: creating and nurturing brands and then selling them to other firms with superior marketing capabilities for whom they have more value. Although many small entrepreneurial firms have created brands and sold them to larger rivals, and other firms have bought distressed brand assets for later resale, we are not aware of any firms that have adopted such a business model explicitly.

At a tactical level, our study should help managers judge when potential brand asset transactions may create more or fewer benefits for shareholders. From a buying perspective, we showed that managers should target larger and higher-quality-/price-positioned single-brand acquisition targets and avoid buying at an auction whenever possible. Purchasing from sellers with inferior marketing capabilities is also advisable. Our results suggested that managers should also seek to purchase any available complementary channel assets. For disposals, we showed that managers should seek to sell larger brands that are relatively unrelated to the rest of the firm's portfolio and for which the firm has relatively inferior distribution resources. Bundling together multiple brand assets in a single disposal also may be worthwhile. However, managers should avoid selling relatively (compared with the rest of their portfolio) higher-quality-/price-positioned brands if possible.

Our results also clearly showed that managers must be keenly aware that investors are sensitive to public statements surrounding brand acquisition and disposal transactions. From an acquisition perspective, identifying and elaborating likely cost-saving synergies is a value-creating tactic, but talking about revenue synergies is ill-advised. When selling brands, investors are interested in how the proceeds will be used; statements about investments in share buy-backs and more profitable brands typically are rewarded, whereas those announcing investing in faster growing brands are punished. Finally, our results have suggested the use of statements by managers about how the acquirer firm's marketing capabilities will add value to the brand asset.

Limitations and Further Research

Several limitations should be borne in mind when considering our results. First, although an event study is a widely used method for examining investor reactions, it does not identify the mechanism that explains why observed abnormal returns occur. We assume that investors' responses to brand acquisitions and disposals are functions of the variables included in our cross-sectional regressions, but surveys of investors would be useful to confirm this assumption. Second, although we used a sampling frame covering publicly traded companies operating in more than 30 B2C industries, the generalizability of our results is limited to larger firms operating in consumer markets. Additional studies in other sectors will be required to generalize our results fully.

In addition to the need for further research to address these limitations, our study also suggests promising new areas for research. Our study is one of the first to examine empirically the theoretically important concept of the efficiency of the market for marketing-related assets. We found clear evidence of both buyer- and seller-side market inefficiencies with respect to brand assets, as a result of the presence or absence of complementary assets among firms, which can allow managers to create shareholder value through such transactions. However, brands are only one type of marketing-related asset. What other types of marketing-related assets can be traded? How efficient are the markets for other marketing-related assets? Growing interest in linking marketing investments to shareholder wealth makes this avenue an important one for continued research.

Our results also suggest that firms can outperform rivals over time by selling and purchasing brand assets. Our conceptual framework assumes that this outcome is a result of seller firms being able to concentrate on other types of capability and asset combinations, for which they have a comparative advantage. If so, what kinds of other capability and asset combinations are common? Alternatively, might this result indicate support for recent management research that poses information asymmetry between the selling firm and investors as an explanation for abnormal returns to brand disposals? From this perspective, investors may find valuing a firm's intangible brand assets difficult, and the sale of a brand could allow them to evaluate the value of the firm's remaining brand assets more accurately, resulting in abnormal returns (e.g., Bergh, Johnson, and Dewitt 2008). Which is it? Further research should address this significant gap in theoretical and empirical knowledge.

Finally, marketing capabilities and brand portfolios emerged in our research as complementary assets that are key to understanding how marketing drives B2C firm shareholder value. Yet we know little about how these two marketing assets interact. For example, our results indicated that investors value a firm's ability to manage its brand portfolio. What constitutes a brand portfolio management capability? How can it be inferred by investors or operationalized by researchers? Is brand portfolio management capability really value-relevant for investors? This interesting new avenue for research could enhance understanding of how marketing can contribute to firm performance and shareholder value.

APPENDIX A
List of Consumer-Focused Industries Included in the Sample

SIC Code	Description	Illustrative Sample Firms
2013	Sausages and Other Prepared Meat Products	Sara Lee, Smithfield Foods, Thorn Apple Valley
2022	Natural, Processed, and Imitation Cheese	Borden
2032	Canned Specialties	Campbell Soup, Heinz, Hormel
2033	Canned Fruits, Vegetables, Preserves, Jams, and Jellies	Del Monte, Dole Food, Seneca Foods
2041	Flour and Other Grain Mill Products	Conagra, Ralston Purina
2043	Cereal Breakfast Foods	General Mills, Kellogg, Quaker Oats, Ralcorp
2046	Wet Corn Milling	Bestfoods
2052	Cookies and Crackers	Keebler, Lance, Nabisco
2064	Candy and Other Confectionery Products	Cadbury
2066	Chocolate and Cocoa Products	Hershey
2079	Shortening, Table Oils, Margarine	Unilever
2082	Malt Beverages	Molson Coors, Anheuser-Busch
2084	Wines, Brandy, and Brandy Spirits	Brown-Forman, Constellation Brands
2086	Bottled and Canned Soft Drinks	National Beverage, PepsiCo
2087	Flavoring Extracts and Flavoring Syrups	Coca-Cola
2099	Food Preparations	Kraft, Hain Celestial, Monterey Gourmet
2111	Cigarettes	Altria, Reynolds American, Imperial Tobacco
2322	Men's and Boys' Underwear and Nightwear	Fruit of the Loom
2328	Men's and Boys' Work Clothing	VF Corp
2337	Women's, Misses', and Juniors' Suits, Skirts, and Coats	Jones Apparel
2339	Women's, Misses', and Juniors' Outerwear	Liz Claiborne
2834	Pharmaceutical Preparations (Over-the-Counter Only)	NBTY, Carter-Wallace, SmithKline Beecham
2841	Soaps and Other Detergents, Except Specialty Cleaners	Colgate, Procter & Gamble, Church & Dwight
2842	Specialty Cleaning, Polishing, and Sanitation Preparations	Clorox
2844	Perfumes, Cosmetics, and Other Toilet Preparations	Alberto-Culver, Estee Lauder, Playtex
3149	Footwear, Except Rubber	Nike, Stride Rite, Wolverine World Wide
3949	Sporting and Athletic Goods	Brunswick, K2, Reebok
5490	Miscellaneous Food Stores	Starbucks
5810	Retail, Eating and Drinking Places	Benihana, Landry's
5812	Eating Places	AFC Enterprises, Brinker, McDonald's
7011	Hotels and Motels	Marriott, Hilton, Starwood

Appendix B: Regression Equations Used in Analyses

Heckman Selection Equation

(B1) Brand acquisition (disposal)$_t$

$= \beta_0 + \beta_1$Firm marketing emphasis$_{t-1}$

$+ \beta_2$Firm technology emphasis$_{t-1}$

$+ \beta_3$Firm leverage$_{t-1} + \beta_4$Firm financing$_{t-1}$

$+ \beta_5$Firm cash on hand$_{t-1}$

$+ \beta_6$Favorable brand acquisition (disposal) decisions$_{t-1}$

$+ \beta_8$Unfavorable brand acquisition (disposal) decisions$_{t-1}$

$+ \beta_9$ Year$_{1994} + \cdots + \beta_{22}$ Year$_{2007} + \varepsilon$.

Brand Acquisition Hypothesis Testing Model (Second-Stage Heckman Test)

(B2) Abnormal return for acquirer at the event

$= \beta_0 + \beta_1$Firm marketing capabilities

$+ \beta_2$Superior distribution resources

$+ \beta_3$Relative positioning of brand

$+ \beta_4$Multiple brands acquired

$+ \beta_5$Related acquisition: same industry

$+ \beta_6$Cost synergies $+ \beta_7$Revenue synergies

$+ \beta_8$Multiple brands $\times$ brand size

$+ \beta_9$Multiple brands $\times$ focus

$+ \beta_{10}$Related $\times$ positioning

$+ \beta_{11}$Cost synergies $\times$ brand size

$+ \beta_{12}$Revenue synergies $\times$ brand size

$+ \beta_{13}$Firm leverage$_{t-1} + \beta_{14}$Firm financing$_{t-1}$

$+ \beta_{15}$Enhance firm growth

$+ \beta_{16}$Enhance firm profitability

$+ \beta_{17}$Strengthen firm's core

$+ \beta_{18}$Focus $+ \beta_{19}$Provide new-to-firm distribution

$+ \beta_{20}$Relative size of acquisition

$+ \beta_{21}$Brand equity of acquired brand

$+ \beta_{22}$Recent performance of acquired brand

$+ \beta_{23}$Firm $+ \beta_{24}$Acquired in an auction

$+ \beta_{25}$Perception of price paid

$+\beta_{26}$Impact on earnings $+\beta_{27}$Service industry

$+\beta_{28}$Long purchase cycle industry

$+\beta_{29}$Adult industry

$+\beta_{30}$Food and beverage industry

$+\beta_{31}$Mills lambda $+\varepsilon$.

Disposal Hypothesis Testing Model (Second-Stage Heckman Test)

(B3) Abnormal return for seller at the event

$= \beta_0 + \beta_1$Firm marketing capabilities

$+\beta_2$Inferior distribution resources

$+\beta_3$Relative positioning of brand

$+\beta_4$Multiple brands disposed

$+\beta_5$Unrelated: different industry group

$+\beta_6$Multiple brands $\times$ brand size

$+\beta_7$Multiple brands $\times$ focus

$+\beta_8$Unrelated $\times$ positioning

$+\beta_9$Firm leverage$_{t-1}$ $+\beta_{10}$Firm financing$_{t-1}$

$+\beta_{11}$Reduce debt $+\beta_{12}$Buy back shares

$+\beta_{13}$Focus on faster growing brands

$+\beta_{14}$Focus on more profitable brands

$+\beta_{15}$Focus on core brands $+\beta_{16}$Focus

$+\beta_{17}$Brand equity of disposed brand

$+\beta_{18}$Recent performance of disposed brand

$+\beta_{19}$Relative size of disposal

$+\beta_{20}$Disposed in an auction

$+\beta_{21}$Perception of price received

$+\beta_{22}$Impact on earnings

$+\beta_{23}$One-time charge to earnings

$+\beta_{24}$Service industry

$+\beta_{25}$Long purchase cycle industry

$+\beta_{26}$Adult industry

$+\beta_{27}$Food and beverage industry

$+\beta_{28}$Mills lambda $+\varepsilon$.

Net Shareholder Wealth Calculation

Economic wealth produced

= Dollar change in shareholder wealth of the acquirer and disposer

$= \Delta\text{Wealth}_{acq} + \Delta\text{Wealth}_{disp}$

$=$ Market value$_{acq} \times$ abnormal return$_{acq}$

+ market value$_{disp} \times$ abnormal return$_{disp}$.

Net Shareholder Wealth Regression Model

(B4) Economic wealth produced

$= \beta_0 + \beta_1$Relative (to seller) acquirer marketing capabilities

$+\beta_2$Relative (to seller) acquirer distribution strength

$+\beta_3$Brand revenue transferred $+\beta_4$Number of brands

$+\beta_5$Relative size transfer

$+\beta_6$Net positioning impact on firms' portfolios

$+\beta_7$Relative relatedness of brand to acquirer

$+\beta_8$Relative focus (buyer vs. seller)

$+\beta_9$Relative marketing capability $\times$ brand size

$+\beta_{10}$Relative marketing capability $\times$ number of brands

$+\beta_{11}$Relative leverage $+\beta_{12}$Relative financing

$+\beta_{13}$Auction $+\beta_{14}$Perception of price

$+\beta_{15}$Cost synergies $+\beta_{16}$Revenue synergies $+\varepsilon$.

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