Corporate Brand Name Changes and Business Restructuring: Is the Relationship Complementary or Substitutive?

Corporate brands are strategic assets for organizations, but it is difficult to understand the value added by corporate brand name changes because they often occur simultaneously with business restructuring initiatives. The authors test a framework that delineates the informational relationship between corporate name changes and business restructuring initiatives. The hypothesis is tested on a sample of jointly announced corporate name changes and business restructuring initiatives. The results show that jointly announced corporate name changes and business restructuring are significantly more informative than the sum of their individual effects. The results further suggest that the information complementarity arises because corporate brand name changes resolve uncertainty and help in coordinating business restructuring initiatives. The results do not support the view that corporate brand name changes are cosmetic and/or primarily signals for business restructuring. The study offers a promising research foundation for understanding the value of marketing actions announced jointly with other corporate events.
There has been significant interest in the last couple of decades amongst academics and practitioners in understanding the value of corporate brands. Corporate brands are strategic assets for organizations (Brown et al. 2006; Keller 1998). The special issue in the *Journal of the Academy of Marketing Science* in 2006 highlights the central role of corporate brands in organizations and how it impacts various stakeholders (see Dacin and Brown 2006). Researchers in marketing investigating the effects of corporate brands on firm performance rely on the insight that intangible properties embedded in corporate brands are a source of tangible wealth. For example, Kerin and Sethuraman (1998) examine firms on the 1995 and 1996 Interbrand “Most Valued Brands” lists and report a positive relationship between financial brand values and market-to-book ratios. Madden, Fehle and Fournier (2006) use monthly stock returns for the period 1994–2000 and find that the portfolio of brands identified as strong according to Interbrand’s valuation method displays statistically and economically significant performance advantages compared with the overall market.

If corporate brands indeed enhance cash flows of the firm and lower risk, what is the economic value of changing corporate brand names? The question of whether corporate brand name changes and corporate brand deployment initiatives (Jaju, Joiner and Reddy 2006; Muzellec 2004; Varadarajan, DeFanti and Busch 2006) influence stock market performance has intrigued researchers for a long time.¹ The act of corporations changing their names assumes various forms. Corporate brand name changes could be major, in which the rebranding efforts result in a new name that is noticeably different from the old name. For example, Jerry’s Guide to the World Wide Web changing its name to Yahoo! and Consolidated Foods rebranding itself to Sara Lee Corporation are major corporate brand name changes (Glynn and Abzug 2002). Likewise, corporations could also alter their names such that the new name adopted is a minor

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¹ We use the terms “corporate brand name changes” and “corporate name changes” interchangeably in the paper.
modification of its old name. For example, United Parcel Service changing its name to UPS is a minor name change. The focus of this paper is on major corporate brand name changes as these are more likely to have significant implications for the identity and reputation of the corporation.

Despite evidence that corporate brands add economic value to firms, empirical evidence on whether corporate brand name changes enhance shareholder value remains mixed and contradictory (see Table 1 for literature overview). On one hand, there is research to suggest that when corporations change their names, there is a positive but small reaction from stock markets (Bosch and Hirschey 1989; Horsky and Swyngedouw 1987; Karpoff and Rankine 1994; see Table 1 for reviews). These studies conclude that *name changes do not have any intrinsic value* (see Karpoff and Rankine 1994). The implication is that name change is merely a cosmetic change undertaken by corporations. On the other hand, there are studies that report large stock market reactions to corporate name changes (Cooper, Gulen and Rau 2005; Lee 2001; see Table 1 for reviews). These studies suggest that large reactions to corporate name changes are perhaps because investors perceive them to be signals for business restructuring. *Business restructuring* refers to a firm reorienting or refocusing around a core (i.e., expansion or deletion) product, business line, and/or geographical market (Bowman and Singh 1993; Hoskisson and Turk 1990; Markides 1992). While previous research acknowledges the intuitive link between corporate brand name changes and business restructuring, there is little known about the nature of the informational relationship between the two events. The challenge researchers face in this regard is that corporate name changes are often announced jointly with business restructuring efforts. When two events are announced simultaneously, it is not clear which event the investors react to, since they are almost indistinguishable from the market’s perspective. Consequently, it is not
possible for managers to assess the costs and benefits of either corporate brand name changes or business restructuring initiatives.

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The objective of this study is to disentangle the effects of jointly announced corporate name changes and business restructuring events and understand the nature of the informational relationship between the two events. Drawing on insights from the marketing and accounting literature, we seek to understand whether corporate name changes and business restructuring act as informational complements or as informational substitutes. We test our hypothesis on announcements made by publicly traded U.S. firms during the period 2002–2007. The data are comprised of multiple announcement samples such as (1) jointly announced corporate name changes and business restructuring, (2) individually announced corporate name changes (“pure corporate name changes”), and (3) individually announced business restructuring initiatives (“pure business restructuring”). In order to facilitate a confident interpretation of the results, we use two approaches (i.e., standard event study and conditional event study procedures) to test the hypotheses.

The results strongly support our hypothesis that jointly announced corporate brand name changes and business restructuring are more informative than the sum of the effects of individually announced corporate name changes and business restructuring events. This implies that firms embarking on business restructuring initiatives that are not accompanied by corporate brand name changes (which is frequently the case) might not realize the highest value for their initiatives. While business restructuring initiatives reveal strong economic information to financial markets on the intended direction of the corporation, there is considerable uncertainty about the identity of the corporation during this period of realignment. An accompanying
corporate name change is likely to significantly enhance the net present value by reducing uncertainty and increasing the credibility of the business restructuring initiative. To the best of our knowledge, our study is the first to offer empirical evidence that corporate brand name changes add considerable value by infusing meaning into business restructuring efforts. The study uncovers new insights about the value of corporate brand name changes which were hitherto considered difficult to disentangle. More generally, our study offers a promising foundation to delineate the economic value of marketing actions when they are announced jointly with other strategic events.

**Conceptual background and hypothesis**

Corporate brand names summarize the physical characteristics, past performance, and several other characteristics of a brand in a succinct manner. Corporate brand names, being symbols of corporate image, are supposedly infused with meaning to clearly communicate the identity of the corporation to external stakeholders (Brown and Dacin 1997; Brown et al 2006; Glynn and Azbug 2002). The act of changing names represents an important milestone in a corporation’s history. Given the high costs, a corporation is unlikely to change its name more than once in its lifespan.

Past research in marketing and finance has examined the impact of corporate brand name changes on stock market reactions and has reported a wide range of responses to these events. For example, Horsky and Swyngedouw (1987, p. 325) note that on average, name change announcements by firms yielded .61% cumulative abnormal returns (CAR). Similarly, Cooper, Dimitrov and Rau (2001, p. 2379) note that the “cumulative abnormal returns are large and significant across event windows surrounding the announcement date, for firms announcing
name changes between June 1988 and July 1999.” Similarly, Lee (2001) reports a significant median CAR of 2.70% for name changes using the NASDAQ composite index. More recently, Cooper, Gulen and Rau (2005) offer evidence that mutual funds that changed their names toward a “current hot style” experienced large abnormal flows (of the order of 20%) to the fund even when there were no significant changes to the portfolio managed by the fund.

What information could a corporate brand name change convey to stock markets? According to the organizational identity literature, corporate brand names are considered central, distinct, and enduring attributes that constitute an organization’s essential character (Albert and Whetten 1985; Ashforth and Gibbs 1990, Brown et al. 2006). Here, core features of identity are presumed to be resistant to faddish attempts at alteration. More recently, this perspective has been supplanted with the institutional theory framework that considers names as vehicles of image as construed by the corporation’s key stakeholders (Brown et al. 2006; Dutton and Dukerich 1991; Gioai, Schultz and Corley 2000). The institutional forces in the firm’s environment not only make firms mimic each other but also shape the attributes of the new name adopted by a corporation. For example, there was a distinct trend when firms began adopting strange foreboding names such as Primark, Unisys, and Allegis (Belkin 1987). More recently, Cooper, Gulen and Rau (2005) note that several mutual funds changed names to associate with “hot” or “glamorous” styles or changed names to dissociate from “cold” styles. For example, several U.S. mutual funds changed names around 2000 by adding “New Economy” or “Growth” to associate with the technology bubble. However, after the bubble burst, several mutual funds began reassuring potential investors by choosing names that suggest an ability to find value amid the technology wreckage (Wine and Sullivan 2001). In this framework, corporate identity of a firm is fluid and evolves in response to changes in the environment. Therefore, name changes
provide utility by allowing stakeholders (i.e., customers, suppliers, investors) to better decipher the identity of the corporation (Brown and Dacin 1997).

While a firm may change names to conform to institutional practices and/or to enhance its image, corporate brand name changes are often accompanied by announcements about business restructuring. The simultaneity of these events has been noted in previous research. For example, Varadarajan, DeFanti and Busch (2006, p. 197) note that “business deletion decisions manifest as the deletion of the associated brand name as well as the deletion of product-market-level brands associated with the deleted brand name.” Horsky and Swyngedouw (1987, p. 322, emphasis not in original) note that “in particular, a change in a firm’s name is often accompanied, or followed by other changes in the firm such as changes in product offerings and organizational changes, etc. It is practically impossible to control for these and ascertain the singular impact the name change had on profits.” Lee (2001) notes that name changes are frequently accompanied by business restructuring events such as change in business focus or geographical focus. According to Glynn and Azbug (2002, p. 270), “name changes may be inert in the face of organizational changes that customarily accompany name changes.” Similarly, other studies note that measuring the effectiveness of corporate brand name changes is not easy since it is often confounded with business reorganization and changes in product offerings (Bosch and Hirschey 1989; Kohli and Hemnes 1995).

What does the simultaneity of corporate name changes and business restructuring imply from an informational perspective? To understand this, we turn to research in accounting that has examined similar issues in the context of earnings. A long-standing debate in the accounting literature is whether earning announcements have ceased to be informative to financial markets. Some researchers contend that analyst reports preempt earnings announcements, and as such,
when firms release earning news they have very little new information for financial markets (Kim and Verrecchia 1991; Lev and Zarowin 1999). These findings suggest that analyst reports essentially act as a substitute for earnings information. This implies that earnings announcements by firms should be *less informative* to financial markets since analyst reports essentially provide the same information. More recent evidence suggests the opposite. Francis, Schipper and Vincent (2002a) note that there are significant increases in the joint reactions to both analyst reports and earnings announcements. This suggests that analyst reports may actually act as a complement for earnings information.

From a consumer-based brand equity (CBBE) perspective, the overall worth of a brand depends on awareness and associations (Keller 1993; Luo 2009). A re-allocation of resources accompanying a name change increases the likelihood that firms would establish some level of awareness for the new brand name through their actions and that the associations for the new brand name will differ from those for the old one. Thus, business restructuring should increase the likelihood that a simple name change becomes a new intangible brand asset. Corporate brand name changes encapsulate information about the altered identity or image of the corporation. Changing names is costly, and investors are likely to evaluate this decision as investments in building intangible capital (Tadelis 1999). Nonetheless, the corporate identity of the firm is also intricately linked to the strategic direction embarked on by the firm (Brown et al. 2006). The preceding arguments suggest that a corporate name change announcement on its own may not fully communicate the meaning of the new corporate identity. Financial markets may not be able to fully comprehend specific aspects of the corporate identity just based on corporate name changes. Financial markets may perceive corporate brand name changes to be more meaningful when there are concurrent changes in the firm’s resource allocation. For instance, a

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2 We thank an anonymous reviewer for this suggestion.
corporation adopting the name of its prominent brand may be less meaningful without accompanying information on the corporation’s decisions to allocate more resources to this brand. Empirical evidence from recent research suggest that investors’ reactions to firms’ announcements change depending on whether they receive summary versus detailed information about the firm. For example, the presence of detailed income statements and marketing related information (i.e., increased or decreased marketing and R&D expenditures) in earnings announcements creates more shareholder value (Dinner, Mizik and Lehmann 2009; Francis, Schipper and Vincent 2002b) as financial investors are able to understand the earnings news better. Likewise, we expect the effects of jointly announced corporate brand name changes and business restructuring to be greater than the effect of a singularly announced corporate name change. The business restructuring information should enable investors to better decipher the new corporate identity (i.e., corporate name change) because a business restructuring announcement provides credible information of the firm’s changing priorities.

Similarly, there could be some degree of uncertainty about a firm’s business restructuring when it is announced individually. There is a large body of literature that has examined uncertainty and identity challenges during periods of organizational change. Brown and Gioia (2002) examine organizational identity challenges in the context of a new division within an organization. Likewise, Corley and Gioia (2004) examine ambiguity in the context of corporate spin-offs. We expect that there would be considerable ambiguity and uncertainty about an organization’s identity during periods of business realignment and refocusing. There could also be uncertainty because financial markets and analysts may be skeptical of the firm’s commitment to the course of action. In this regard, corporate brand name changes are likely to reduce the uncertainty about the organization’s identity in the period after restructuring. Likewise, since
name changes are costly, financial investors may find business restructuring to be less reversible and more credible when implemented jointly with a corporate brand name change. Therefore, name changes may be perceived to be more valuable if they are used as mechanisms to resolve uncertainty about the organization’s identity and to coordinate business restructuring actions. As such, corporate name changes and business restructuring are likely to share a complementary rather than a substitutive relationship with each other. Hence, we advance the following hypothesis:

H1: The joint announcement effects of corporate name changes and business restructuring are likely to be greater than the sum of the individual announcement effects.

**Research methodology**

The hypothesis test requires data on combination of samples of corporate name changes and business restructuring. We combed through newswire reports and archives of LexisNexis to identify publicly held U.S. firms that announced corporate name changes between 2002 and 2007. The rationale for selecting 2002 as the starting date was dictated by the stock markets volatility between 1999 and 2001. Past research has documented rather large abnormal returns to corporate name changes during the 1999–2001 time period (see Table 1). Therefore, we excluded name changes from this period since the unwarranted exuberance in financial markets could significantly influence our results. The keywords used for the search included “Corporate Name Change,” “Name Change,” and “Firm Name Change.” We eliminated 10 observations that were confounded with dividend or stock split related information.

Unlike the standard practice in the event study literature, we did not exclude announcements that included corporate name change and business restructuring news. This is
because our objective is to ultimately understand the relationship between corporate name changes and business restructuring. In our case, a joint announcement refers to two announcements made in the same press release. Two independent coders classified announcements into the business restructuring category depending on whether or not there was a change in the strategic focus of the company. Following past research, we distinguish between business restructuring and financial restructuring (e.g., Bowman and Singh 1993; Horsky and Swyngedouw 1987; Markides 1995). As such, announcements on financial restructuring were not included in the sample.

It is also worth pointing out that we did not include announcements that involved a corporate name change along with a merger and acquisition (M&A) (see robustness checks section for analysis with a sample that includes M&A deals). While M&As entail reallocation of corporate resources, we believe an M&A event is conceptually distinct from business restructuring initiatives. For instance, in an M&A context, the stock market often penalizes the acquiring firm (see Datta, Pinches and Narayanan 1992; Loughran and Vijh 1997; Moeller, Schlingemann and Stulz 2005), whereas the stock market responds positively to business restructuring announcements (Markides 1992). Furthermore, the level of uncertainty that the stakeholders (e.g., investors) have about the strategic direction of the firm is much less than other forms of business restructuring as the firm strongly signals its commitment to the strategic direction by purchasing another company. As such, including M&As along with business restructuring introduces noise in the sample.\(^3\)

We carefully examined the announcements for the following indicants of strategic change: (1) divestiture or deletion of product lines, business lines, or geographical markets (e.g., Markides 1995) and (2) addition or expansion of product lines, business lines, or geographic

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\(^3\) We thank an anonymous reviewer for bringing this issue to our attention.
markets (e.g., Bowman and Singh 1993; Hurry 1993). These in effect reflect changes in corporate resource allocation across product groups, business lines, and geographical markets and are in line with our conceptualization of business restructuring.⁴ Therefore, if the announcement mentioned any of the aforementioned initiatives along with a corporate name change, it was coded as a Joint Announcement. We ensured that the business restructuring news was not announced on an earlier date by the firm. To rule out this possibility, we searched the archives of LexisNexis for business restructuring news till one year before the announcement day. All announcements without business restructuring were coded as Pure Name Change Announcement.

We also assembled data on firms that announced business restructuring news without accompanying name changes during 2002–2007. We searched the archives of LexisNexis using keywords such as “Restructuring,” “Repositioning,” “Refocusing,” “Divestiture,” and “Realignment.” As before, the focus of this search strategy was to ensure that these announcements pertained to addition or deletion of product lines, business lines, and geographical markets. We also eliminated announcements with confounds (e.g., earnings, dividend related announcements).

Our data collection procedures yielded multiple samples of announcements of corporate name changes and business restructuring initiatives made by publicly held firms in the United States. Specifically, the sample is comprised of 105 name change announcements made jointly with business restructuring announcements, 10 pure name change announcements (i.e., not announced jointly with business restructuring news) and 47 pure business restructuring announcements (i.e., not announced jointly with corporate name change initiative). The fact that

⁴ We do not include minor brand and/or product line changes that do not influence the resource allocation significantly in the firm.
there are 47 pure restructuring announcements and only 10 pure corporate name change announcements suggests that the frequency of business restructuring events occurring without accompanying corporate name changes is much greater than the frequency of corporate name changes occurring without accompanying business restructuring initiatives. This sample size compares well with past research. The sample covers a broad and diverse range of industries (i.e., 88 SIC codes). Also, firms in the joint announcement sample (i.e., corporate name changes and business restructuring) and the pure announcement samples (i.e., corporate name changes and business restructuring announced individually) are not significantly different from each other in terms of size and book-to-market ratio.

Hypothesis test

Testing the hypothesis of interest requires us to examine the impact of corporate name changes and business restructuring individually and compare it with the total announcement effects. We tested our hypothesis using two related approaches. In the first approach, we used the standard event study methodology to estimate cumulative abnormal returns (CARs) on the announcement samples. Here, CARs are the measure for the announcement effects. We estimated cumulative abnormal returns on the joint announcement sample which corresponds to the total announcement effects. Following this, we estimated CARs on the samples of pure name changes and pure business restructuring in order to estimate the individual announcement effects. Following this, we compared the CARs from the joint sample with the CARs of the individual samples. Formally:

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6 Details on the comparisons of the different samples are available from the authors.
If \( \text{CAR}_{\text{JOINT \, SAMPLE}} > \text{CAR}_{\text{NAME \, CHANGE}} + \text{CAR}_{\text{BUSINESS \, RESTRUCTURING}} \), then corporate name changes and business restructuring are informational complements.

If \( \text{CAR}_{\text{JOINT \, SAMPLE}} < \text{CAR}_{\text{NAME \, CHANGE}} + \text{CAR}_{\text{BUSINESS \, RESTRUCTURING}} \), then corporate name changes and business restructuring are informational substitutes.

The second approach we used to test our hypothesis is a conditional event study technique. The logic behind a conditional event study method is as follows. Consider for instance two firms, A and B, announcing the failure of a product in the marketplace. Suppose that the two firms are identical except that in the immediate past, firm A borrowed heavily and firm B invested heavily. It is quite likely that the degree of unexpectedness is different for both firms although the focal event is the same. If the unexpected information has value, it should explain the announcement effects associated with an event (Eckbo, Maksimovic and Williams 1990; Prabhala 1997). In summary, this model measures the abnormal returns to an event conditional on the firm-specific pre-event information. It is worth noting that the conditional event study technique is econometrically equivalent to Heckman’s sample selection estimator (see Heckman 1979). The difference is that the interpretation of the conditional event study model is based on information theories and it aligns well with the Efficient Market Hypothesis (Fama et al. 1969). The private information estimated in the conditional event study model corresponds to the unanticipated component of an information event.\(^7\)

The benefit of a conditional event methodology in this context is its ability to handle concurrent events and estimate the unexpected information of each event individually. This approach has been used previously to disentangle joint announcements of dividends and splits (see Li and Prabhala 2006; Nayak and Prabhala 2001). It is as such well suited to test the

\(^7\) We thank an anonymous reviewer for this insight.
informational hypothesis of interest and generate managerially interesting insights (which we elaborate on in the discussion).

We specify our name change choice equation as discrete choice model. Formally, if $NC_i$ is the indicator variable for the corporate name change choice for firm $i$, $Z_{i,NC}$ is the set of pre-event covariates at time $t-1$ that influence the name change choice, $u_i$ is the random error term or the private information. Firms are likely to change names if $NC^*$, a latent variable is greater than or equal to zero. Therefore:

$$
NC_i(= 1) \epsilon \ 0 \epsilon \ NC_i^* = a_{NC} Z_{i,NC} + u_i
$$

$$
NC_i(= 0) \epsilon \ 0 > NC_i^* = a_{NC} Z_{i,NC} + u_i
$$

(1)

In the conditional event study approach, the announcement of a name change reveals something about the firm’s unexpected information, $u_i$, to the market. The revised expectation of $u_i$ conditional on the incidence of the name change constitutes the name change announcement effect. Therefore,

$$
E(AR_i \mid NC) = \theta_{0,NC} + \theta_{NC} * E(u_i \mid NC)
$$

(2)

where AR is the abnormal returns for the name change event for firm i, and $E(u_i \mid NC)$ is the updated expectation of the unobservable/private information from the name change announcement. The name change event is said to have significant announcement effects if $\theta_{NC}$ is statistically significant in Eq. 2. Following this logic, the total announcement effect from a joint sample should reveal to markets unexpected information about the name change and business restructuring choices. Therefore, we can specify the total announcement effects as follows:

$$
E(AR_{NC,R} \mid NC,R) = \theta_{0,NC,R} + \theta_{NC} E(u_i \mid NC,R) + \theta_{R} E(\pi_i \mid NC,R)
$$

(3)

The notation in Eq. 3 is different than in Eq. 2 since there are two events in question. $AR_{NC,R}$ is the abnormal stock market reaction when name change and restructuring are jointly
announced. Equation 3 is our basic model to analyze the joint announcement sample. The conditional expectations in Eq.3 need to be solved to estimate the announcement effects of name changes and business restructuring decisions.

We tested our hypothesis as follows. We estimated Eq. 3 in a stepwise manner by including the unexpected information pertaining to name change choices and business restructuring. Formally:

\[ E(AR_{NC,R} \mid NC,R) = \theta_{0,NC1} + \theta_{NC1}E(u_{i} \mid NC,R) \]  
\[ E(AR_{NC,R} \mid NC,R) = \theta_{0,R1} + \theta_{R1}E(\pi_{i} \mid NC,R) \]

If name changes and business restructuring announcements share a complementary relationship with each other, then the total announcement effects in the multivariate regression Eq. 3 should be greater than the sum of its counterparts in the univariate regression Eq. 4a and 4b. In other words, we should find \( \theta_{NC} + \theta_{R} \) (in the multivariate Eq. 3) > \( \theta_{NC1} + \theta_{R1} \) (in the univariate Eq. 4a and 4b). Alternately, if name changes and business restructuring announcements substitute each other, then we should find \( \theta_{NC} + \theta_{R} \) (in the multivariate Eq. 3) < \( \theta_{NC1} + \theta_{R1} \) (in the univariate Eq. 4).

The implementation of the model requires us to estimate a bivariate probit model since we have to capture the unexpected information component of name changes and business restructuring that are announced simultaneously (e.g., \( u_{i} \) in Eq. 1). The bivariate inverse mills ratios (\( \lambda_{s} \)) serve as the measure of the unexpected information component in the main model (see appendix for computation of bivariate inverse mills ratio):

\[ AR_{i} = \beta_{0,NC1} + \theta_{NC1}\lambda_{NC,i} + \varepsilon_{i,NC1} \]  
\[ AR_{i} = \beta_{0,R1} + \theta_{R1}\lambda_{R,i} + \varepsilon_{i,R1} \]
\[ AR_i = \beta_{0,NC} + \theta_{NC} \lambda_{NC,i} + \theta_R \lambda_R,i + \epsilon_{i,NC} \]  

(5c)

Equation 5c is the econometric equivalent of Eq. 3.

Notice that as compared to the standard event study approach (that used CARs to test the hypothesis), the second approach tests the hypothesis using the coefficients of the unexpected information (i.e., bivariate inverse mills ratios). In this framework, the coefficients are the measure of the announcement effects. To estimate the conditional event study model, we also need data on firms that neither changed names nor underwent business restructuring (i.e., non-event). We constructed the sample of non-events by matching firms in the joint announcement sample with publicly listed firms on multiple criteria: industry (two-digit SIC code) and size (market capitalization) (Denis and Denis 1995; Kaplan 1989; see robustness checks for alternate matching criteria). The matching was done such that the control firm was within 10% of the risk factor (market capitalization) of the announcement sample firm. This procedure yielded a matched sample of 89 firms.

*Predictors of corporate name change choice* Our primary objective in the first stage of the analysis is to predict the incidence of corporate name changes and business restructuring. We used past research to identify firm-specific and industry-specific characteristics that predict both choices. Generally, firms would change their names if the benefits outweigh the costs of implementing the change. The corporate brand strategy of the firm should have an impact on the name change decision. It is plausible that firms with a “house-of-brands” strategy would be more inclined to change names as it is relatively easier to communicate the name change decision of a corporation adopting the name of one of its brands. It would be more costly for a firm to change its name if the firm pursues a corporate branding strategy compared to a house-of-brands strategy
Therefore, we expect the firm’s branding strategy (i.e., corporate brand or house of brands) to predict the likelihood of a corporate name change. We include industry type (i.e., business-to-consumer versus business-to-business) as a predictor of the corporate name choice decision. This is because if the new name does have an actual effect on consumers’ perceptions of the firm’s products, then it is likely that in consumer goods, where image is supposed to play a bigger role, the benefits of a name change will be larger than in business markets (Horsky and Swyngedouw 1987). Similarly, it is possible that for a B2B firm, its brand equity is likely to be derived from the corporate reputation of the firm (versus its individual brands). Therefore, B2B firms would be less likely to change names since this has strong reputational value associated with it. We include the level of diversification as a predictor because higher levels of diversification are likely to increase the costs of changing the name of corporation. The firm would have to spend more marketing dollars to promote the new name of the corporation if the firm is operating in greater number of industries. Therefore, more diversified firms would have less incentive to change their names. According to the industrial organization literature, industry structure has a significant influence on firm behavior and strategy. In the context of corporate name change decisions, greater competition is likely to increase the firm’s sensitivity to consumers’ perceptions of the firm and its name. As competition increases, firms might actively seek to redeploy their corporate brands to strengthen presence in certain markets and/or customer segments (Rao, Agarwal and Dahlhoff 2004). Accordingly, we examine industry concentration (i.e., the level of competition in the industry) as a predictor of name change.

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8 We thank an anonymous reviewer for this suggestion.
Predictors of business restructuring choice The literature on business restructuring frequently focuses on environmental and agency theory explanations for the firm’s restructuring decision (Bethel and Liebeskind 1993; Johnson, Hoskisson and Hitt 1993). Consistent with this stream of research, we examine firm’s diversification levels, past performance, level of industry concentration (environmental explanation), and institutional ownership (agency theory explanation) as predictors of the restructuring choice.

First, there is empirical evidence to suggest that the level of diversification of a firm predicts the likelihood of business restructuring (Palich, Cardinal, and Miller 2000). Hoskisson and Turk (1990) note that excessive diversification often leads to misallocation of corporate resources and loss of control. Business restructuring is often a response by firms to refocus or reorient the business following high levels of diversification. Similarly, business restructuring is often undertaken following poor performance as firms might more closely examine if resources are optimally allocated to business units/products/markets (e.g., Gibbs 1993; Horsky and Swyngedouw 1987; Markides 1995). Therefore, firms with poor past performance are more likely to restructure their businesses (Olson, Slater and Hult 2005). There is also research which suggests that industry structure exerts significant pressure on firms to restructure (Mitchell and Mulherin 1996). Liebeskind and Opler (1996) offer empirical evidence to suggest that firms operating in concentrated industries that are characterized by slow growth are more likely to consolidate and emphasize their core business. Therefore, we use industry concentration as a predictor for business restructuring. Finally, agency theorists contend that managers have personal incentives to diversify and pursue growth opportunities beyond optimal size (Bethel and Liebeskind 1993; Jensen and Murphy 1990; Johnson, Hoskisson and Hitt 1993). This results in the misalignment of corporate and managerial goals. In such situations, we expect activism from
institutional shareholders to curb managerial indiscretion with respect to allocation of corporate resources. As such, higher levels of institutional ownership are likely to be positively related to the restructuring choice.

\[ NC_i = \alpha_{0,NC} + \alpha_{1} BrStr_i + \alpha_{2} IndType_i + \alpha_{3} Div_i + \alpha_{4} Perf_i + \alpha_{5} HHI_i + \nu_i \]  
(6)

\[ R_i = \alpha_{0,R} + \alpha_{4} Div_i + \alpha_{7} Perf_i + \alpha_{8} HHI_i + \alpha_{9} Instown + \pi_i \]  
(7)

Note that Eq. 6 and 7 seek to model the decision making process behind both choices and are in essence “expectations” from the stock market’s perspective. The informational relationship between corporate name changes and business restructuring announcements should be reflected in the magnitude of estimates from Eq. 5a and 5b to 5c.

Measures

Abnormal returns Our dependent measure is the short-term abnormal returns (AR) accruing from the name change announcement to the focal firm, using the event study methodology. The short-term abnormal returns are computed as the excess stock returns relative to stock returns calibrated on the market model (Brown and Warner 1985). We estimated the market model using the daily stock returns for each firm between 255 and 30 days prior to the event day (please see robustness checks section for alternate benchmarks). We corrected for heteroskedasticity in the abnormal returns by standardizing the abnormal returns using the standard deviation of abnormal
returns over the estimation window. Because the event study is conducted across \( N \) different events, the individual \( CARs \) can be averaged into a cumulative average abnormal return (\( CAAR \)). We assessed the significance of the \( CAAR \) for multiple event windows and chose the most significant one, using the cross sectional variance adjusted Patell test statistics (Boehmer, Musumeci, and Poulsen 1991).

**Independent variables** In order to construct the branding strategy variable, we searched the 10-K filings of all the companies in our sample to collect information on a firm’s branding strategy. That is, we examined whether firms use a corporate branding strategy or a house-of-brands strategy (Bahadir, Bharadwaj, and Srivastava 2008). If a company uses a corporate branding strategy then it was coded as 1. If a company uses a house-of-brands strategy, then it was coded as 0. We also collected data from Compustat on whether a firm’s primary end users were consumers or businesses. We operationalized this using a dummy variable that was coded 1 for business-to-consumer markets and 0 otherwise. Firm profitability was operationalized as the average profitability of the firm (i.e., net income/total assets) in the three years prior to the announcement year. Following Palepu (1985), we operationalized firm diversification as an entropy measure that accounts for the total number of segments a firm operates in and the importance of those segments to the total sales. Industry concentration was operationalized as the sum of the squares of market shares of all firms in a four-digit SIC code. We operationalized institutional ownership as the percentage of shares held by financial institutions to the total outstanding shares and managerial ownership as the percentage of shares held by insiders to the total outstanding shares. Table 2 summarizes the operationalization and data sources of the variables in the study.
Results

Descriptive findings

Tables 3a and 3b show the cross sectional variance adjusted Patell test statistic for cumulative abnormal returns for five event windows and individual abnormal returns in an 11-day window around the jointly announced events. The only time window with a significant CAR is [-2, 2]: 1.03 (p < .05). This implies that on average, corporate name change announcements and business restructuring created 1.03% of shareholder value.

Estimation results

Method 1: Standard event study analysis In this method, we compared the sum of CARs of individually announced corporate name change and business restructuring event with CAR of jointly announced corporate name change and business restructuring events. Recall that our hypothesis requires us to test whether the stock market’s reaction to the joint announcement is greater or less than the sum of the reactions to separate events. The results as evidenced in Table 4a indicate that the CAR for the joint announcement is 1.03% (standard error= .46; p<.05). Also, Table 4a suggests that the CAR for the pure name change announcement is .09% and insignificant (standard error .06; p>.10), whereas the CAR for the pure restructuring announcement is .75% and statistically significant in a [-2, 2] event window (standard error= .32; p<.05). Also, the sum of the individual announcements is .84% (.09 + .75, p<.05). We compared if the difference in CAR between the joint announcement sample and the pure announcement sample is significant using a t-test. We find that the CARs are statistically significant at the p=.05 level. Therefore, the stock market reaction to the joint announcement is greater than the sum of
individual announcements. The hypothesis is thus supported. This analysis reveals an interesting insight. While the CAR for the pure name change is statistically insignificant, the CAR for the joint announcement sample is statistically and economically significant.

We also compared firms that experienced a decline in abnormal stock returns after the name change and firms that experienced an increase in abnormal stock returns after the name change. For the pure name change announcement sample, we find that all 10 firms in the sample experienced an increase in cumulative abnormal returns (CARs), although the size of the CARs for these 10 firms is modest. In contrast, for the joint announcement sample, we find that 73 firms experienced positive and large CARs and 32 firms experienced negative CARs. This raises a question as to why would some name changes experience negative CARs when they are announced simultaneously with business restructuring. The negative CARs for a third of the joint announcement sample perhaps suggests that if the chosen corporate name does not “fit” well with the direction of the business restructuring decision, the stock market response to the joint announcement might be even negative (see discussion section for an elaboration). 9

While the results from this method are suggestive of a complementary relationship between corporate name changes and business restructuring, we do not know if corporate name changes add more value to business restructuring or the other way around. In order to get a better understanding of the direction of this complementarity, we turn to the second approach.

---Insert Table 4a about here---

Method 2: Conditional event study analysis We used a conditional event study technique to understand the nature of the informational relationship between corporate brand name changes and business restructuring. In the first step of the conditional event study method, we estimated a bivariate probit model for the corporate name change and business restructuring choices. The

9 We thank an anonymous reviewer for this suggestion.
choice of this specification was dictated by the fact that corporate name change and business restructuring choices are likely to be correlated. Table 4b suggests that the chi-square statistic for the selection model is strongly significant ($\chi^2 = 31.29(9), p<.01$). Therefore, the model with covariates fits the data reasonably well. As regards the results for the predictors of name change, we find that firms that pursue a corporate branding strategy are less likely to change names than firms that pursue a house-of-brands strategy ($\beta = -.39, p<.01$). We also find that firms in business-to-consumer markets are more likely to change names than firms in business-to-business markets ($\beta = .33, p<.01$). This suggests that corporate image is more germane in business-to-consumer markets than in business-to-business markets. The results also suggest that firms with higher past performance are more likely to make corporate brand name changes ($\beta = .00, p<.05$). Lastly, we find that diversified firms are less likely to change names ($\beta = -.37, p<.10$). As regards the business restructuring choice, we find that firms that operate in more concentrated industries are more likely to undergo business restructuring than firms that operate in less concentrated industries ($\beta = .80, p<.01$). As expected, firms that have higher degrees of institutional ownership are more likely to restructure compared to firms with lower degrees of institutional ownership ($\beta = .21, p<.05$). Also, we find that firms with poor past performance are more likely to undertake business restructuring ($\beta = -.00, p<.01$).\(^{10}\)

--- Insert Table 4b about here---

In the second step of the conditional event study, we estimated the information effects using regression analysis. Table 4c presents estimation results of Eq. 5a, 5b, and 5c, that is, the second stage regression. To test whether corporate name changes and business restructuring

\(^{10}\) Past performance has a positive effect on name change choice and negative effect on business restructuring choice. This is because higher past performance might release slack resources necessary to implement corporate name changes whereas lower past performance might serve as the motivation for firms to restructure and improve its future financial prospects.
complement each other, we compared the magnitudes of total announcement effects from the multivariate regression with individual announcement effects in their univariate counterparts. The results in Table 4c suggest that the total announcement effects (i.e., corporate brand name changes and business restructuring) in the multivariate regression model is .22 ($\theta_{NC} + \theta_R = .12 + .10$) and the sum of the individual announcement effects in the univariate regression model is .18 ($\theta_{NC1} + \theta_{R1} = .09 + .09$). We tested for the difference in coefficients between the multivariate and univariate regression models and find that they are statistically significant at the $p=.05$ level. Collectively, the results again lend support to H1.

Importantly, the results from this approach provide additional insights relative to the first approach. The coefficients suggest that the effect of corporate name changes on business restructuring is significantly greater (i.e., coefficient increases from .09 to .12) than the effect of business restructuring on corporate name changes (coefficient increases from .09 to .10). This implies that the information complementarity between these jointly announced events is driven more by corporate brand name changes complementing business restructuring initiatives rather than by business restructuring initiatives complementing corporate name changes.

---Insert Table 4c about here---

Robustness checks

We performed a number of additional tests to check the robustness of the results. Specifically, we checked the sensitivity of the results to (1) alternate matching criteria, (2) a different benchmark model (i.e., Fama-French Four Factor model), (3) an alternate estimation window, (4) expanded sample size, and (5) inclusion of M&A events in the sample.
Alternate matching criteria An issue that could undermine the validity of the findings is if the results are sensitive to the risk factors used to create the matched sample.\textsuperscript{11} To test this possibility, we created a matching sample based on industry, size, and book-to-market ratios (these criteria are also frequently used in the empirical finance literature, see D’mello and Shroff 2000; Hendricks and Singhal 2001). The matching was done such that the control sample and firms in our sample are within 20% of each other. Notice that we used a wider caliper for identifying the matched unit. It is known that as the number of risk factors used for matching increases, it is difficult to find a corresponding matched unit. The sample for the first stage probit model based on industry, size, and book-to-market ratio matching reduces to 225 (compared to 251 when matched on industry and size). Following this, we re-estimated the first stage selection equation and the second-pass regression based on these alternate matching samples. The results presented in Table 5a and Table 5b are very similar to the ones reported based on industry and size. As such, we conclude that the results are not an artifact of the risk factors used in assembling the matching sample.

--- Insert Table 5a and Table 5b about here---

Different benchmark model As noted before, we estimated the cumulative abnormal returns for the joint announcement sample using the market model (Chen, Ganesan and Liu 2009). We checked for the robustness of the results using the Fama-French Three Factor (FF3) and Fama-French Four Factor (FF4) model.\textsuperscript{12} Following past research (Wiles et al. 2010), we generated the abnormal or excess return for the stock \(i\) on day \(t\), \(AR_{it}\), as the difference between the stock’s actual return \(R_{it}\) and the expected return based on general market movement and the Fama-French (1993) and momentum factors (Carhart 1997). The results from this analysis are reported

\textsuperscript{11} We thank an anonymous reviewer for this suggestion.
\textsuperscript{12} We thank an anonymous reviewer for this suggestion.
in Tables 6a and Table 6b. The substantive conclusions are unchanged for cumulative abnormal returns generated using the FF3 and FF4 models. This is not surprising because in a short-term event study context, the correlation between the abnormal returns for the market model, FF3, and FF4 models is generally very high (.93 with FF3 and .91 with FF4 in our case).

*Different estimation windows* As noted before, we tested the hypothesis on the (-2, 2) event window because the cumulative abnormal returns were statistically significant in the five-day period around the announcement. Nonetheless, in order to check if the results are sensitive to the event windows chosen, we estimated the second stage regression model on an alternative event window (-3, 3).\(^{13}\) As evidenced in Table 7, the results of the second stage regression are very similar to the results reported for the event window (-2, 2). Thus, it is reasonable to conclude that the results are robust across different estimation windows.

--- Insert Table 6 and Table 7 about here---

*Sensitivity of the results to expanded sample size* The hypothesis was tested on a sample of 115 corporate name changes between 2002 and 2007. Although this sample compares well with previous research in marketing that has used event study methods, one could nonetheless wonder whether the results would be valid on samples beyond 2007.\(^{14}\) To examine this issue, we supplemented our existing sample with new data on corporate name changes and business restructuring announcements for the years 2008 and 2009. We used the same search criteria as before to identify the announcements. Our search yielded a total of 26 announcements pertaining to corporate name changes and business restructuring (18 joint announcements and 8 pure name changes).

\(^{13}\) We thank an anonymous reviewer for this suggestion.

\(^{14}\) We thank an anonymous reviewer for bringing this to our attention.
change announcements). We also assembled a matched sample based on industry and size for these 26 new firms. Thus, our first stage of the conditional event study model is comprised of 301 observations (251 before). However, we were able to retrieve the stock market data for only 14 out of the 26 new firms for 2008 and 2009. Accordingly, our sample size for the second stage of the conditional event study model is 129 (115 before). The results of the first stage selection model and second stage conditional regression model are presented in Table 8a and Table 8b. As evidenced in Table 8a and Table 8b, the substantive conclusions of the study remain the same for the event sample between 2002 and 2009. Thus, it is reasonable to conclude that the complementary relationship between corporate name change and business restructuring is robust across different samples used to test the hypothesis.

--- Insert Table 8a and Table 8b about here---

*Including M&As in the sample* Recall that our sample comprised of business restructuring announcements did not include mergers and acquisitions events (M&As). Our rationale to exclude M&As from the sample was that they are qualitatively different from business restructuring. An alternate viewpoint is that M&As also involve expansion product lines/geographical markets and are consistent with the conceptualization of business restructuring. Following this logic, excluding these events from the sample may systematically skew the sample. To examine this concern, we re-estimated the results after including 12 M&A deals in the data period that involved business restructuring as well as a corporate name change. The results of the second stage conditional event study analysis are reported in Table 9. We find that the announcement effects for the corporate name change and business restructuring event in univariate and multivariate regressions are similar to the ones reported earlier. Thus, there is a
robust complementary relationship between corporate name changes and business restructuring announcements regardless of whether the sample includes or excludes M&A events.

--- Insert Table 9 about here---

**Discussion**

Corporate brand name changes, considered to be brand deployment initiatives, are important markers in a firm’s history. Understanding the value of corporate brand name changes that are often undertaken alongside business restructuring initiatives has been considered difficult to resolve (e.g., Horsky and Swyngedouw 1987). We used two approaches to examine the nature of the informational relationship between corporate brand name changes and business restructuring initiatives that are frequently announced jointly. The study makes two important contributions to the marketing literature.

First, the study provides valuable insights into the impact of corporate brand name changes that are implemented simultaneously with business restructuring initiatives. It is known that corporate branding strategies have significant implications for firm performance (Mizik and Jacobson 2008; Rao, Agarwal, and Dahlhoff 2004). While previous research investigates corporate branding strategies during stable periods in the firms’ history, we investigate corporate brand name changes implemented concurrently with business restructuring initiatives. We find that corporate name changes add value by making business restructuring more meaningful and informative to financial investors. Although business restructuring efforts are considered strong information signals about the firm’s future prospects, financial markets may still be skeptical about the commitment of the firm to the strategic direction which involves a significant change
in the identity of the firm.\footnote{We would like to emphasize that not all the changes in the brand portfolio of a firm qualify as a business restructuring move according to our definition. For example, the deletion of a small brand that does not have significant revenue composition implication is not included in our sample. Therefore, we acknowledge that such changes would not necessitate a corporate name change. We thank one of the reviewers for pointing out this caveat.} For example, consider a corporation seeking to realign its business by focusing on a prominent brand or line of business in its portfolio. If the corporation adopts the name of the prominent brand, this name change is likely to make the business restructuring initiative appear more credible to investors as name changes are costly and irreversible. Thus, financial investors are likely to perceive that the corporation will be more committed to the business restructuring strategy if it is also accompanied by a name change.

Second, the framework used in this study enables researchers to examine the value of marketing actions when they are announced jointly with other corporate events. Marketers face a significant challenge in communicating their value to stakeholders. There is growing belief in the financial community that marketing actions are largely tactical and that they are largely discretionary in nature. The seriousness of this issue has been noted in academic discourse as well as business commentaries (Kimbrough and McAlister 2009; Lehmann and Reibstein 2006; Srivastava, Shervani and Fahey 1998). Marketing events rarely happen in isolation but are often embedded in an overall business context. Yet in their zest to communicate value to the financial community, marketing researchers often seek to examine the value of marketing actions in isolation rather than examining them in the context of other strategic events. The danger in this approach is that marketers could undersell the value added by marketing actions.

Consider for example the role of marketing-related information in enhancing the informativeness of earnings news. It is interesting to note that, over time, there has been an increase in the amount of concurrent information that firms provide in earnings announcements (e.g., Francis, Schipper and Vincent 2002b). It is common for firms now to supplement earnings...
news with information about cuts in marketing expenditures or R&D expenditures or information about new product delays, excess inventory, etc. The concurrent implementation of marketing actions might enable investors to better decipher the earnings news and the firm’s future growth prospects. Our conceptual framework could be used to examine the informational relationship between such concurrent informational elements. Recall that the bivariate choice model setup in the first stage of the framework also allows the researcher to model the strategic motivations of firms (e.g., signaling to investors or other stakeholders), if any, behind making joint announcements. From an implementation standpoint, this will require assembling a joint sample of earning released along with marketing specific news, sample of pure earnings and pure marketing specific announcements.

Our framework could be applied in several other settings. For example, it could be used to understand whether the appointment of a Chief Marketing Officer (CMOs) is informative from the perspective of financial investors. Recently, marketing scholars have focused on examining the financial performance implications of the presence of CMOs in the top management team (e.g., Boyd, Chandy, and Cunha 2010; Nath and Mahajan 2008). In many situations, the appointment of CMOs is accompanied by firms making changes to their marketing strategy. For example, announcements of CMO appointments are often made jointly with changes in the corporation’s brand or product portfolio. In such situations, understanding the value added (or destroyed) by CMO appointments could be difficult as one could wonder whether the stock market’s reaction is attributable to the appointment of CMOs per se or to changes in the firm’s marketing strategy. It is not surprising to find that evidence for the impact of CMO appointments on firm performance is mixed and contradictory. While some studies document a large positive reaction from stock markets to CMO appointments (Boyd, Chandy and
Cunha 2010), others find that the presence of a CMO in top management does not have a significant impact on firm performance (Nath and Mahajan 2008). Our framework could be used to disentangle these effects and explicitly test the nature of the informational relationship between such related events. This, in turn, should allow researchers to accurately communicate the value created or destroyed by CMO appointments.

Managerial implications

Managers are frequently concerned about whether financial markets care about corporate branding initiatives such as corporate name changes. Past research notes that “demand shifting and signaling effects of a corporate name change do have different policy implications” (Horsky and Swyngedouw 1987). For example, “if the new name can change preferences, great care should be taken in its selection and in planning the advertising campaign to accompany its entrenchment. On the other hand, if the name change only acts as a signal it may be worthwhile to only cosmetically alter the old name and at the same time direct attention to the successful implementation of the forthcoming changes” (Horsky and Swyngedouw 1987, p. 321).

Our findings imply that, instead of viewing a name change as either a demand shifter or as a signal for something latent, firms might be well served in recognizing the informational relationship between name changes and business restructuring. The results suggest that there is significant value added by corporate name changes when they are used to enhance the informativeness of business restructuring. Table 4a suggests that the aggregate CAR or total announcement effects of name changes and business restructuring is 1.03%, whereas the CAR for pure business restructuring events is .75%. The average market capitalization of firms in our sample is $7.9 billion. This implies that the net present value of jointly announced corporate
name changes and business restructuring is $81 million (i.e., 1.03% of $7.9 billion), whereas the net present value of pure business restructuring announcements is $59 million (i.e., .75% of $7.9 billion). Therefore, when firms undertake business restructuring along with a name change, the incremental economic value realized through this strategy is $22 million.

The conditional event model results in Table 4b also corroborate this finding. As evidenced in Table 4b, the informativeness of business restructuring increases by 33% (estimate increases from .09 in the univariate regression to .12 in the multivariate regression) when business restructuring is announced jointly with corporate name changes. As noted before, business restructuring initiatives are frequently undertaken without any change in the corporate brand name. However, it is uncommon for firms to implement corporate brand name changes without any business restructuring. Overall, our findings indicate that managers can bolster the financial value of their corporate brand name change and restructuring initiatives if they announce these strategies simultaneously. In order to extract maximum value from such integrated strategies, it would be important for managers to communicate the objectives and motivation behind the changes in detail to the investment community.

More generally, our findings point to the importance of understanding how financial markets attend to the informational relationship between events. It is imperative for managers to be cognizant of whether their strategies are perceived by financial markets to be complementary or substitutive. For example, a change in the firm’s R&D strategy may yield greater returns from financial markets if it is announced along with a well-designed marketing strategy. Managers announcing these strategies in a piece-meal manner are not likely to be rewarded commensurately by financial markets. An integrated approach to the design and communication of marketing strategies or actions could yield better stock market outcomes.
Limitations and conclusion

This study has limitations that offer avenues for future research. First, the sample used in the study is limited to publicly listed firms in the United States. This was done in order to ensure that the financial reporting requirements across firms are uniform and as mandated by the Securities and Exchange Commission (SEC) and Financial Accounting Standards Board (FASB). Nevertheless, future research could examine whether the findings generalize to markets in other economies. Second, the focus of this study is on the aggregate reaction of investors to corporate brand name changes and business restructuring initiatives. Following standard practices in the event study literature, we infer the stock market’s reaction from abnormal changes in the stock price. A survey of investors or analysts could generate richer insights into how the financial community perceives the informational relationship between corporate brand name changes and business restructuring initiatives. Although we find that business restructuring initiatives accompanied by a corporate name change generate higher cumulative abnormal returns, we caution that there might be instances when a firm that undergoes business restructuring may not face the need to change its name. For example, when Proctor & Gamble (P&G) acquired Gillette in 2005 and added a new product line to its portfolio, this event was not accompanied by a name change.\textsuperscript{16} One could speculate that while this acquisition may have provided P&G with increased clout with retailers in the short term to medium term, it may not fit the long-term goals of the corporation. If so, the lack of a corporate name change may even imply that P&G could divest this business line in the future. Similarly, in other instances, it is quite possible that financial markets may attend to the “fit” of the corporate name with the business restructuring initiative in assessing the complementary effects. Our analysis offers some

\textsuperscript{16} We thank an anonymous reviewer for this suggestion.
preliminary evidence suggesting that corporate name changes may in fact detract value from a business restructuring initiatives if the fit is poor. A field study that investigates contingency factors that investors might attend to when evaluating the relationship between corporate brand name changes and business restructuring could shed more light into these conjectures.
References


Mitchell, M. L., & Mulherin, H. J. 1996. The impact of industry shocks on takeover and


Table 1 Overview of past research on corporate brand name changes and stock price reactions

<table>
<thead>
<tr>
<th>Authors</th>
<th>Publication (Year)</th>
<th>Data Period</th>
<th>Sample Size</th>
<th>Key Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horsky and Swyngedouw</td>
<td><em>Marketing Science</em> (1987)</td>
<td>1981–1985</td>
<td>58</td>
<td>Corporate name changes yielded cumulative abnormal returns of .61%. Name changes per se do not have an impact on changing demand, except that they are signals for organizational changes.</td>
</tr>
<tr>
<td>Bosch and Hirschey</td>
<td><em>Financial Management</em> (1989)</td>
<td>1979–1986</td>
<td>79</td>
<td>Corporate name changes yielded cumulative abnormal returns of 1.1% in a five day window around the announcement. The authors note “the overall sample shows a fairly strong positive abnormal response to the announcement of a name change, with most of the effect occurring one business week before the WSJ announcement” (p. 68).</td>
</tr>
<tr>
<td>Karpoff and Rankine</td>
<td><em>Journal of Banking and Finance</em> (1994)</td>
<td>1979–1987</td>
<td>147</td>
<td>The authors find that the stock market effects of corporate name changes for the overall sample is small and insignificant. They further note “the observation of positive announcement period forecast errors is not robust to changes in the sample and selection of the event date” (p. 1036).</td>
</tr>
<tr>
<td>Lee</td>
<td><em>Strategic Management Journal</em> (2001)</td>
<td>1998–1999</td>
<td>59</td>
<td>The authors find that the mean cumulative abnormal returns in a three-day window following name changes are 167%. The authors further note “when name changes are accompanied by other strategies the signaling value is greater, and should correspond to greater increases in stock price and trading volume” (p.802).</td>
</tr>
<tr>
<td>Cooper, Dimitrov and Rau</td>
<td><em>Journal of Finance</em> (2001)</td>
<td>1998–1999</td>
<td>95 (adding dot com to names)</td>
<td>Over a five-day period around the name change announcement, all firms earned positive and significant abnormal returns of 53%. Furthermore, there is no “significant reduction in CARs from day + 1 to day + 120, suggesting that the firms do indeed experience a permanent value increase. There is no post-announcement negative drift, implying that the increase in value due to the name change is permanent” (pp. 2379–2380).</td>
</tr>
</tbody>
</table>
| Cooper, Khorana     | *Journal of Corporate*      | 1998–       | 67          | The authors “find no evidence of a significant market
reaction to dot com deletions during the “hot” Internet period. In contrast, after February 2000, the market reacts very positively to dot.com deletions” (p. 327). In addition, the authors also find that “firms adding a dot.com to their names in this period earn significant positive cumulative abnormal returns over all event windows” (p. 333).

“When funds do change their names, they earn significantly positive abnormal fund flows. Abnormal flows are on the order of 20%, in the 1 year after the name-change month, for all of the funds in our sample” (p. 2826).

The authors note that “firms that change their name completely experience cumulative abnormal returns of 1.2% in a three-day window surrounding the event.” In addition, there is a larger share price appreciation for firms that added elements to their name or firms that changed name to signal greater focus.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Measure</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shareholder value</td>
<td>Cumulative abnormal returns in the [-2,2] event window</td>
<td>Center for the Research in Security Prices (CRSP)</td>
</tr>
<tr>
<td>Corporate name change choice</td>
<td>1, if the corporation changed its name, 0 otherwise</td>
<td>LexisNexis</td>
</tr>
<tr>
<td>Restructuring choice</td>
<td>1, if the corporation underwent business restructuring, 0 otherwise</td>
<td>LexisNexis</td>
</tr>
</tbody>
</table>

### Firm Characteristics*  

| Past performance                | Net Income/Total Assets                                                                          | Compustat                        |
|                                 | We use a three-year average of profitability prior to name change and/or business restructuring. |                                  |
|                                 | Data items NI and AT are used to compute the profitability measure.                              |                                  |
| Corporate brand strategy        | 1, if a company uses corporate branding strategy; 0, if a company uses house-of-brands strategy prior to name change. | 10K Filings/Annual Reports       |
| Diversification                 | $\sum [\ln(m_{ij4}/m_{ij2})^*\ln(m_{ij2}/m_{ij4})]^*m_{ij4} + \sum m_{ij4}^*\ln(1/m_{ij4})$, $m_{ij4}$ is the proportion of firm i’s sales in four-digit industry j and $m_{ij2}$ is the proportion of firm i’s sales in two-digit industry j. (Palepu 1985). | Compustat Segment data file      |
| Institutional ownership         | Ratio of the number of shares held by institutions to the total outstanding shares. Data items (shares) and (shrout1) are used to compute the institutional ownership ratio. | 13f filings (Thomson Reuters)    |

### Industry Characteristics*  

| Industry concentration          | $\sum (\text{Market Share}_i)^2$ ($i=1, 2, \ldots n$) where $i$ is a company operating in the primary industry of firm j. n is the number of companies operating in the primary industry of firm j. | Compustat                        |
| Industry type                   | 1, if a corporation’s primary industry (as defined by Compustat) sells largely to end-consumers. 0, otherwise. | Compustat                        |

* We use the data for the last fiscal year prior to name change and/or business restructuring to compute these measures. For the past performance variable, three-year window prior to name change and/or business restructuring is used.
### Table 3a Cumulative abnormal average returns across different event windows

<table>
<thead>
<tr>
<th>Window</th>
<th>Mean Abnormal Return</th>
<th>% Positive</th>
<th>Patell t-Statistic&lt;sup&gt;1)&lt;/sup&gt;</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>[0,0]</td>
<td>.34</td>
<td>48</td>
<td>1.23</td>
<td>.22</td>
</tr>
<tr>
<td>[-1,+1]</td>
<td>-.09</td>
<td>46</td>
<td>-.34</td>
<td>.73</td>
</tr>
<tr>
<td>[-2,+2]</td>
<td>1.03</td>
<td>48</td>
<td>1.96</td>
<td>.05</td>
</tr>
<tr>
<td>[-3,+3]</td>
<td>1.11</td>
<td>57</td>
<td>1.40</td>
<td>.16</td>
</tr>
<tr>
<td>[-5,+5]</td>
<td>.43</td>
<td>53</td>
<td>.80</td>
<td>.42</td>
</tr>
</tbody>
</table>

Note: <sup>1)</sup> Standardized-Cross Sectional Patell t-Statistics is adjusted for cross sectional variance (Boehmer, Musumeci, and Poulsen 1991). The p values are two-tailed.

### Table 3b Daily abnormal returns around the corporate name change announcement

<table>
<thead>
<tr>
<th>Day</th>
<th>Abnormal Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>-5</td>
<td>0.07</td>
</tr>
<tr>
<td>-4</td>
<td>-0.40</td>
</tr>
<tr>
<td>-3</td>
<td>0.39 *</td>
</tr>
<tr>
<td>-2</td>
<td>0.35 *</td>
</tr>
<tr>
<td>-1</td>
<td>-0.45</td>
</tr>
<tr>
<td>0</td>
<td>0.34 **</td>
</tr>
<tr>
<td>1</td>
<td>0.02</td>
</tr>
<tr>
<td>2</td>
<td>0.77 **</td>
</tr>
<tr>
<td>3</td>
<td>-0.31</td>
</tr>
<tr>
<td>4</td>
<td>-0.26</td>
</tr>
<tr>
<td>5</td>
<td>-0.09</td>
</tr>
</tbody>
</table>

*** p<.01; ** p<.05; * p<.10.
Table 4a Hypothesis tests: standard event study results

<table>
<thead>
<tr>
<th>Sample</th>
<th>CAR [-2,2]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name Changes and Business Restructuring Announcement Effects</td>
<td>1.03% **</td>
</tr>
<tr>
<td>Pure Name Change Announcement Effects</td>
<td>.09%</td>
</tr>
<tr>
<td>Pure Business Restructuring Announcement Effects</td>
<td>.75% **</td>
</tr>
</tbody>
</table>

*** p<.01; ** p<.05; * p<.10.
### Table 4b First stage conditional event study results: industry and size matched sample

<table>
<thead>
<tr>
<th>Bivariate Probit Model</th>
<th>Industry and Size (n=251), ρ_{NCR}=.90***</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Firm Characteristics</strong></td>
<td></td>
</tr>
<tr>
<td>Corporate Branding Strategy</td>
<td>-.39 (.10)***</td>
</tr>
<tr>
<td>Past Performance</td>
<td>.00 (.00)** - .00 (.00)***</td>
</tr>
<tr>
<td>Diversification</td>
<td>-.37 (.21)* .02 (.20)</td>
</tr>
<tr>
<td>Institutional ownership</td>
<td>.21 (.09)**</td>
</tr>
<tr>
<td><strong>Industry Characteristics</strong></td>
<td></td>
</tr>
<tr>
<td>Industry Concentration</td>
<td>.23 (.31) .80 (.30)***</td>
</tr>
<tr>
<td>Industry Type</td>
<td>.33 (.09)***</td>
</tr>
<tr>
<td>Wald Chi-square (d.f.)</td>
<td>31.29 (9)***</td>
</tr>
</tbody>
</table>

### Table 4c Hypothesis tests: conditional event study results

**Dependent Variable is Cumulative Abnormal Returns [-2,2]**

<table>
<thead>
<tr>
<th></th>
<th>NC Choice</th>
<th>RES Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\theta_{NC}$ (n=115)</td>
<td>.09 **</td>
<td>.10 **</td>
</tr>
<tr>
<td>$\theta_R$ (n=115)</td>
<td>.09 **</td>
<td>.12 **</td>
</tr>
</tbody>
</table>

***p<.01; **p<.05; *p<.10.
Table 5a  Robustness checks: first stage results using industry, size and book-to-market ratio matched sample

<table>
<thead>
<tr>
<th></th>
<th>NC Choice</th>
<th>RES Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Panel A: Bivariate Probit Model</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Industry, Size and Book-to-market ratios (n=225), ρ_{NCR} = .91***</td>
<td></td>
</tr>
<tr>
<td><strong>Firm Characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Branding Strategy</td>
<td>-.39 (.10)***</td>
<td></td>
</tr>
<tr>
<td>Past Performance</td>
<td>.00 (.00)**</td>
<td>-.00 (.00)***</td>
</tr>
<tr>
<td>Diversification</td>
<td>-.34 (.22)</td>
<td>.01 (.21)</td>
</tr>
<tr>
<td>Institutional ownership</td>
<td>.20 (.17)</td>
<td></td>
</tr>
<tr>
<td><strong>Industry Characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry Concentration</td>
<td>.33 (.32)</td>
<td>.97 (.31)***</td>
</tr>
<tr>
<td>Industry Type</td>
<td>.35 (.10)***</td>
<td></td>
</tr>
<tr>
<td>Wald Chi-square (d.f.)</td>
<td>30.39 (9)***</td>
<td></td>
</tr>
</tbody>
</table>

Table 5b  Robustness checks: second stage results using industry, size and book-to-market ratio matched sample

<table>
<thead>
<tr>
<th></th>
<th>NC Choice</th>
<th>RES Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variable is Cumulative Abnormal Returns [-2,2]</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\theta_{NC}$ (n=115)</td>
<td>.10 **</td>
<td>.12 **</td>
</tr>
<tr>
<td>$\theta_{R}$ (n=115)</td>
<td>.09 **</td>
<td>.12 **</td>
</tr>
</tbody>
</table>

*** $p<.01$; ** $p<.05$; * $p<.10$. In panel B, the significance testing is based on bootstrap standard errors based on 1000 replications.
Table 6 Robustness checks: conditional event study results using alternate benchmark models

<table>
<thead>
<tr>
<th></th>
<th>FF4 Model</th>
<th>FF3 Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CAR [-2,2]</td>
<td>CAR [-2,2]</td>
</tr>
<tr>
<td>( \theta_{NC} )</td>
<td>.09 ***</td>
<td>.09 ***</td>
</tr>
<tr>
<td>( \theta_{R} )</td>
<td>.14 ***</td>
<td>.15 ***</td>
</tr>
<tr>
<td>N (Sample Size)</td>
<td>115</td>
<td>115</td>
</tr>
</tbody>
</table>

*** \( p<.01; ** p<.05; * p<.10. \)

As before, the significance testing is based on bootstrap standard errors. The bootstrap standard errors are based on 1000 replications.
### Table 7 Conditional event study results: alternate estimation window

**Dependent Variable is Cumulative Abnormal Returns [-3,3]**

<table>
<thead>
<tr>
<th></th>
<th>θNC (n=115)</th>
<th>θR (n=115)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.10 **</td>
<td>.12 **</td>
</tr>
<tr>
<td></td>
<td>.15 **</td>
<td>.19 **</td>
</tr>
</tbody>
</table>

*** p<.01; ** p<.05; * p<.10. In panel B, the significance testing is based on bootstrap standard errors based on 1000 replications since we use estimated variables in the analysis.

### Table 8a Robustness checks: first stage results using sample from 2002 to 2009

<table>
<thead>
<tr>
<th></th>
<th>NC Choice</th>
<th>RES Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel A: Bivariate Probit Model</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry and size</td>
<td>(n=301), ηNC = .82***</td>
<td></td>
</tr>
<tr>
<td>Firm Characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Branding Strategy</td>
<td>-.48 (.11)***</td>
<td></td>
</tr>
<tr>
<td>Past Performance</td>
<td>.00 (.00)**</td>
<td>-.00 (.00)***</td>
</tr>
<tr>
<td>Diversification</td>
<td>-.28 (.17)</td>
<td>.00 (.00)</td>
</tr>
<tr>
<td>Institutional ownership</td>
<td></td>
<td>.15 (.18)</td>
</tr>
<tr>
<td>Industry Characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry Concentration</td>
<td>.31 (.26)</td>
<td>.23 (.11)***</td>
</tr>
<tr>
<td>Industry Type</td>
<td>.37 (.10)***</td>
<td></td>
</tr>
</tbody>
</table>

### Table 8b Robustness checks: second stage results using sample from 2002 to 2009

**Dependent Variable is Cumulative Abnormal Returns [-2,2]**

<table>
<thead>
<tr>
<th></th>
<th>θNC (n=129)</th>
<th>θR (n=129)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.08 **</td>
<td>.10 **</td>
</tr>
<tr>
<td></td>
<td>.13 **</td>
<td>.18 **</td>
</tr>
</tbody>
</table>

*** p<.01; ** p<.05; * p<.10. In panel B, the significance testing is based on bootstrap standard errors based on 1000 replications.
Table 9 Robustness checks: second stage results with the addition of M&A events

<table>
<thead>
<tr>
<th>Dependent Variable is Cumulative Abnormal Returns [-2,2]</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\theta_{NC}$ (n=141)</td>
</tr>
<tr>
<td>$\theta_{R}$ (n=141)</td>
</tr>
</tbody>
</table>

*** $p<.01$; ** $p<.05$; * $p<.10$. In panel B, the significance testing is based on bootstrap standard errors based on 1000 replications.
Appendix: Estimating bivariate inverse mills ratios for conditional event study models

$$\text{NC}_i = \alpha_{\text{NC}} Z_{i,\text{NC}} + \nu_i$$

$$\text{R}_i = \alpha_{\text{R}} Z_{i,\text{R}} + \pi_i$$

$$[\nu_i, \pi_i] \sim \text{Bivariate normal } [0, 0, 1, 1, \rho_{\text{NCR}}], -1 < \rho_{\text{NCR}} < 1$$

$\text{NC}_i$ denotes the name change choice and $R_i$ denotes business restructuring. $\rho_{\text{NCR}}$ denotes the correlation between name change and business restructuring choices.

$$q_{\text{NC},i} = 2\text{NC}_i - 1$$

$$q_{\text{R},i} = 2\text{R}_i - 1$$

$$\logL = \sum_i \log \Phi_2[q_{\text{NC},i}, \alpha_{\text{NC}} Z_{i,\text{NC}}, \alpha_{\text{R}} Z_{i,\text{R}}, q_{\text{NC},i}, q_{\text{R},i}, \rho_{\text{NCR}}]$$

$\Phi_2$ is the bivariate cumulative density function.

$$n_{\text{NC}} = \alpha_{\text{NC}} Z_{i,\text{NC}}$$

$$n_{\text{R}} = \alpha_{\text{R}} Z_{i,\text{R}}$$

$$\omega_{\text{NC}} = q_{\text{NC},i} n_{\text{NC}}$$

$$\omega_{\text{R}} = q_{\text{R},i} n_{\text{R}}$$

$$\rho^* = q_{\text{NC}} q_{\text{R}} \rho_{\text{NCR}}$$

$$g_{\text{NC}} = \Phi[(\omega_{\text{R}} - \rho_{\text{NCR}} \omega_{\text{NC}}) / \sqrt{1 - (\rho^*)^2}]$$

$$g_{\text{R}} = \Phi[(\omega_{\text{NC}} - \rho_{\text{NCR}} \omega_{\text{R}}) / \sqrt{1 - (\rho^*)^2}]$$

$\Phi$ is the univariate cumulative density function. The bivariate inverse mills ratios can be computed as follows:

$$\lambda_{\text{NC},i} = q_{\text{NC},i} * \left( \frac{g_{\text{NC}}}{\Phi_2} \right)$$

$$\lambda_{\text{R},i} = q_{\text{R},i} * \left( \frac{g_{\text{R}}}{\Phi_2} \right)$$