Corporate Name Changes: The Association Between Functional Name Characteristics And Stock Performance

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Abstract

A well-chosen corporate name communicates much information and emotion to a firm's publics. Despite the tremendous costs involved in a corporate name change, many corporations change names when pursuing a new strategic direction. In this study, we examine the relationship between functional name characteristics and stock performance around name change announcements. The results show that "distinctiveness" is the most important explanatory variable of abnormal stock returns.

I. Introduction

American businesses are changing their corporate names as a result of the megamergers, unfriendly takeovers, leveraged buyouts, and new strategic directions. Over the last 13 years financial institutions have accounted for the majority of these name changes, but recently more manufacturing, healthcare and transportation firms have also changed names. In 1988, there were 1,864 name changes, a 6% increase over 1987. Eighty-three percent of these name changes resulted from mergers, acquisitions, and/or restructuring, while the remaining 17 percent were from "pure" name changes (Hackett, 1988). "Pure" name changes are those that are attributed to changes in strategic direction and to changes in communication efforts.

Many firms undergo "pure" name changes if the existing name limits growth opportunities, lacks distinctiveness, and elicits a negative image of the company's activities (Alverson, 1989; Margulies, 1984). Additionally, long, awkward names impede communication, are difficult to remember, and fail to create a visual effect of a company's activities (Margulies, 1977; Pierson, 1989; Leff, 1987; Alsop, 1987). For example, a corporation entering international markets may change its name because the phonetic sound or spelling of the name generates a negative image of the company (Alsop, 1987). Other companies, such as Fluorocarbon Company, change their names because of the general public's negative perceptions toward their industries (Higgins, 1989). In either situation, an inaccurate perception conveyed by an inappropriate corporate name can negatively affect a company's sales and earnings, its employees' morale, its ability to attract talented people and expansion capital, and its performance on Wall Street (Chajet, 1988).

Changing a corporate name can be a complicated, time-consuming, and expensive process. Clearly, changing a corporate name will not be undertaken unless the expected benefits outweigh the costs. Costs can sometimes reach as much as $7 million, as was the case for UAL, which changed its name to Allegis and then back to UAL after two months because of internal management problems (Gordon, 1988). Some of the major costs incurred in name change activity include legal fees, printing of new stationery and packaging, and advertising outlays. Intangible costs also cannot be overlooked, such as, the loss of customer goodwill existing in the form of name recognition, of company image, and of routinized response behavior (Horsky and Swyngedouw, 1987).

Despite all the associated costs and risks, changing a corporate name can also produce substantial benefits. Improved profitability may accrue indirectly through higher employee morale and increased customer preference for a firm's products and services. Studies going back as far as 1969 have shown a positive relationship between corporate image and stock performance (Batten et al. (1969) reported in Garbett, 1988). Akin to this relationship is the effect of corporate advertising on stock values. Shoenfeld and Boyd (1979; see Garbett, 1988) found that corporate advertisers experienced a 4 percent

lift in stock prices after allowing for all other financial indicators. Other studies (Howe, 1982; Horsky and Swyngedouw, 1987; Ferris, 1988; Bosch and Hirschey, 1989) suggest that the stock market seems to react to the announcement of a corporate name change. In a recent study examining the stock prices of 355 New York Stock Exchange companies, three Dartmouth professors found that, on average, the stock prices rose "an astonishing 2.4 percent" solely because of name changes; the sharpest price increase occurred 10 days before the announcement appeared in the *Wall Street Journal* (Bulkeley, 1987). Bosch and Hirschey (1989) report similar findings in their study of 79 "pure" name changes. One interesting, but unexplained, finding in the Dartmouth study (Bulkeley, 1987) is that higher abnormal rates of return occurred for corporate names using acronyms, truncations of longer names, and hyphenated names.

The stock market's reaction to corporate name changes is not uniform. The stock price of some firms appreciates around the announcement of the corporate name changes, whereas the price of others declines. Previous finance research seems to suggest that a corporate name change may be a signal of an improvement in the growth prospects of the firm (Bosch and Hirschey, 1989). A corporate name change may be a credible signal because of the costs associated with the change. In other words, it may be difficult for low quality firms to imitate this action because of costs. If a name change is to serve as a credible signal, then the new name must convey the information known by management.

The major objective of this study is to explain the observed difference in the behavior of stock prices surrounding corporate name changes (i.e., 14 days before the announcement, the announcement day, and 2 days following the name change announcement). More specifically, the intent is to determine whether the abnormal stock return rates vary significantly between those companies whose new name contains all five functional characteristics (distinctive, flexible, memorable, relevant, and positive) of a "good, effective" name.

II. Synthesis of Relevant Literature

Name consultants note two important criteria in selecting a company name---image and function. Image refers to those intangibles that conjure up a picture that distinguishes a corporation from its competitors. Corporate image is created from the reality of the company itself, the newsworthiness of its activities, its diversity, communication efforts, time and memory decay (Garbett, 1988). Much like the political scene, a corporation's image can be positive or negative among the various publics it serves. In general, the consuming public is more concerned with product quality, customer satisfaction, and good corporate citizenship while the investing community considers management quality and long-term growth prospects as the important characteristics of a corporate image. Both groups consider innovativeness as an important characteristic, but for different reasons. Consumers are interested in finding new and interesting products, whereas investors view innovativeness as a competitive advantage for future growth (Garbett, 1988). According to the *Wall Street Journal*'s Corporate Report Card, investors' image of a well-managed company often depends on such criteria as earnings ratio, return on assets, return on shareholders' equity and other performance criteria. There is little uniformity in how these investors make their judgment, but certain criteria appear frequently among analysts evaluating a company.

Functional name criteria range from such simple characteristics as being easy to pronounce and spell to avoiding unfavorable connotations in foreign languages (DeLano, 1979; McNeal and Zeren, 1981; Gray and Smeltzer, 1987; Garbett, 1988; Chajet, 1989). Table 1 contains the most important criteria considered in brand name selection (McNeal and Zeren, 1981).

After considering all the functional characteristics in Table 1, most name consultants (Heaton, 1967; Garbett, 1988) agree that the following five functional characteristics are important in establishing a "good, effective" corporate name.

In general, the best names (1) are short names with one to three syllables, (2) have potential for strong graphics (e.g., a vertical edge to the first initial is helpful), (3) are easy to spell, (4) describe the company's principal activity yet are flexible enough to allow for company expansion, (5) elicit positive connotations in the minds of customers and Wall Street, and (6) are free of geographic limitations (Garbett, 1988). Short names are easier to pronounce and are readily understood, particularly over the telephone. Memorable names tend to be those that use several linguistic devices (Nilsen, 1979; Vanden Bergh, et al. 1987). For example, Schloss (1981) found that brand names beginning with P and K sounds are often associated with funny words and are easy to recall. Certain letters like X and Z and the use of alphanumerics also distinguish a name from other brands. Consumers often associate alphanumerics with high technology and innovative products and companies (Boyd, 1985).

Research in cognitive psychology helps explain the phenomena reported in name recognition. Extensively researching memory and language, Johnson, et al. (1989) report that visual scan rates tend to be slower for consonants than for words. The visual rates for words are similar to memory scan rates for word patterns, implying that words may be viewed holistically and that decoding of the word takes place through memory retrieval processes. On the other hand, consonants are viewed separately and require encoding of the new information,

Table 1
CRITERIA USED IN BRAND NAME SELECTION
(In order of Importance)

1. Descriptive of the product's benefits
2. Memorable
3. Fit with the company's image and other product's image
4. Trademark availability
5. Promotable and advertisable
6. Uniqueness versus Competitiveness
7. Length
8. Ease of pronunciation
9. Positive connotations to potential users
10. Suited to the package

Table 2
FUNCTIONAL NAME CHARACTERISTICS

DISTINCTIVENESS:	Immediately identifies the firm and distinguishes it from its competitors. (Example: Oneok, Inc. is a nonsense word and has an unusual spelling)
RELEVANCE:	Conveys the nature of the firm and its benefits. (Example: Humana Corporation suggests the human touch, personalization, and sensitivity)
MEMORABILITY:	It can be understood, used, and recalled with ease. (Example: NYNEX is more memorable than U.S. West)
FLEXIBILITY:	It is broad enough to cover the organization's current business and its foreseeable expansions. (Example: VISA implies worldwide)
POSITIVE:	It creates a positive image of the company. (Example: LIFEmark has two strong, positive words)

which results in slow visual scanning. Applying this finding to brand and corporate names suggests that nonsense words or initials may require more encoding than memory recall. This step in information processing slows the visual scan rate and the name becomes more unique and distinctive. This reasoning may partially explain why Standard Pressed Steel Company's stock rose 15% when it changed to STS Technologies, Inc. (Bulkeley, 1987).

III. Methodology

A. Research Hypothesis

Based on the existing finance research on stock market reaction to corporate name changes, our tentative hypothesis is the following:

New corporate names possessing more of the five functional characteristics (described in Table 2) will have higher abnormal stock return rates than those with fewer of the functional characteristics.

Our rationale in formulating this hypothesis is that a "good, effective" corporate name should have all five characteristics and that, as such, the name should serve as a stronger "signal" to potential investors. This hypothesis assumes that the new corporate name will have more of the functional characteristics than the former name and will be associated with higher, positive stock performance rates. The dependent variable, abnormal stock return rates, is measured for companies with "pure" name changes.

B. Sample

A sample of 28 firms that had undergone "pure" name changes during the period 1979-1985 was randomly selected from the *Wall Street Journal* index. The list of "pure" name changes was restricted to 28 pairs in order to minimize the amount of respondent fatigue evaluating the corporate name changes.

The respondents consisted of thirty inexperienced investors who were not familiar with the name change

activities of the corporations listed. Using inexperienced investors was deemed appropriate in this study because this group would not be influenced by external factors affecting stock performance. As stated earlier, investors tend to use various performance criteria in developing an overall image of a well-managed company. Except perhaps for money managers, few experienced investors would be familiar with the functional characteristics of a corporate name. This sample group of inexperienced investors specifically evaluated the company on name change criteria rather than on the firm's performance criteria. In a prior study, Hull (1985) found no significant difference in the investment decisions of undergraduates, graduate students, and businessmen. Thus, using inexperienced investors and independently examining of functional name characteristics should give an unbiased measure of the impact on stock performance.

C. Instrumentation

The first step in our study of corporate name changes was to examine the "imagery" of the company name to determine whether the new name had more of a positive appeal. The questionnaire format to measure this variable is shown in Exhibit A.

The respondents were instructed to select one of the two names (former name or new name) that was more appealing. The pairs of old and new company names were mixed and alternated to eliminate any potential halo effects of always selecting the new name. The respondents were also asked to indicate whether they were familiar with any of the companies and the name change activity, and whether they owned stock in any of the companies. This step was necessary to determine whether there was any bias resulting from these two factors. Only one of the 28 companies was familiar (Bic Corporation) and none of the respondents owned stock in any of the companies used in this study.

After the first questionnaire had been completed and collected, the "functional" characteristics of a name were measured. A random ordering of former and new names was constructed using the format shown in Exhibit B below. Prior to this part of the questionnaire, the definitions of the functional characteristics (see Table 2) were explained and the corporate name evaluation process was demonstrated. To insure that the process was followed correctly, the participants were instructed to evaluate some additional corporate names prior to completing the actual survey form. From the pretest results, the evaluators appeared consistent in their rating of corporate names.

Following this procedure, the participants evaluated each of the 56 (28 pairs) corporate names on the five functional characteristics. They were also required to select the name they believed to be the new name on the basis of their evaluations. From their responses, a total score was derived for each of the 56 names. For example, a name judged as having one of the five criteria scored 1; a name judged as having all five scored 5. The purpose of this stage in the experiment was to determine whether the evaluators perceived the new name as having more of the five characteristics than the old name, hence, to determine if it was a "better" name.

D. Event Study Methodology

The third stage of our empirical analysis used the event study methodology popular in finance and accounting research. In an event study, the researcher is concerned with identifying stock market investors' reaction to the release of information or an occurrence of an event. This approach has been used in a variety of information events such as announcement of corporate earnings, mergers, and corporate name changes (e.g., Horsky and Swyngedouw, 1987; Ferris, 1988).

Exhibit A:
Image Questionnaire Format

Instructions: Below is a list of companies which have undergone name change. For each of the pairs given, please place a check next to the name that has the most "appeal" to you. Also, if you are familiar with the company circle the "F" between two company names.

_____ Carrols Corporation F _____ Carrols Development Corporation

Exhibit B:
Functional Characteristics

Instructions: Below are 28 pairs of companies (column 2) that have changed their corporate name. In the first column check the one name that you <u>think</u> is the new name. In the third column circle the letter or letters for each characteristic that you think the name possesses. Use the following codes for reference: D-Distinctive; F-Flexible; R-Relevant; M-Memorable; and P-Positive.

New Name	Name of Company	Characteristics
_____	Armstrong Cork Company	D F R M P
_____	Armstrong World Industries, Inc.	D F R M P

The standard event methodology is a multi-step procedure. First the event of interest is identified. Second, "normal" rate of return, μ_i, is estimated for each of the firms during the pre-event (sometimes referred to as the estimation) period. Third, actual stock returns are collected for each day during the observation period, otherwise known as the "event window." Fourth, "abnormal" returns are calculated as the difference between the actual returns and normal returns (i.e., $AR_{i,t} = R_{i,t} - \mu_i$). Finally, hypotheses are tested using the normal returns, μ_i, estimated from the pre-event period and the actual returns during the event window.

In this study the stock returns on the 28 firms that changed their names during the period 1979-1985 were calculated from the daily stock prices collected from the *Media General Daily Stock Returns and Volume* tape. The event date, defined as t = 0, is the date the corporate name changes were first reported in the *Wall Street Journal*. Normal rates of return were estimated using the market model over the period t = -100 to t = -87 relative to the announcement of the name change, t = 0. The abnormal returns (AR_{it}) were then calculated for an event window of 17 days surrounding the name change announcement (t= -14 to t = +2, that is, 14 days prior to the name change announcement, the announcement day, and 2 days following the announcement). This 17-day event window was used so that any possible market reaction to information leakage could be captured. For each firm in the sample, the cumulative abnormal returns (CAR_t) were then calculated using the following expression:

$$CAR_t = \sum_{t=-14}^{t=+2} AR_t$$

Stepwise logistic regression analysis was used to test the research hypothesis.

IV. Findings

A. Image and Functional Criteria

A sign test (Siegel, 1956) was used to determine the effect of imagery on the old and new names using the questionnaire format in Exhibit A. The results of the test indicated that there was no significant difference (p=.25) in the "image appeal" of the old name or new name. Both groups of names appear to elicit similar perceptions of the "corporate image"; hence, no preference was made for the new name.

After the five characteristics of a "good, effective" corporate name were introduced (see Exhibit B for questionnaire design), 62% of the inexperienced investors were able to correctly identify the new corporate name. None of the 28 pairs of corporate names was rated as having all five of the functional name characteristics. On average, the new corporate names possessed only three of the five functional characteristics. In only one instance did the former name (American General Insurance Corporation) rate higher than the new name (American General Corporation). In this case, the old name was rated as being more relevant (i.e., describes the nature of the company's business).

B. Functional Name Change Characteristics and Stock Rates of Return

Our research hypothesis assumes that the new corporate name would possess more of the five functional characteristics than the former name. Therefore, we sought to determine if stock price performance is related to functional name characteristics. Table 3 contains the normal rates of returns and the cumulative abnormal returns (CARs) of the 28 firms in the sample.

The group of firms was divided into two groups based on CAR performance. Group 1 consisted of positive CAR firms, and Group 2 represented the negative CAR firms. The t-statistic comparing the mean difference in CAR was significant (p=0.0001), indicating that some of the firms experienced an upward trend in the stock prices, whereas others seemed to suffer a drop in prices. We attempted to explain this significant difference by using the five functional criteria of a good corporate name. Before doing so, however, we performed a test of equal variance between the two groups (see Table 3) to determine if the difference in the mean CARs could be attributed to a difference in total investment risk. A fundamental principle in finance is the positive relationship between risk and return; i.e., a high risk investment should generate high returns. Thus, we sought to determine if the positive-CAR group had higher total risk than the negative-CAR firms. The test of the equality of variance (Mean ROR) was not significant (p = .28), and we concluded that the significant difference in CAR cannot be attributed to a difference in risk. Stepwise logistic regression analysis was the statistical procedure used to examine the relationship between functional characteristics and stock performance. The final model is shown below (t-statistics in parentheses):

$$Log\left[\frac{CAR>0}{CAR\leq 0}\right] = \underset{(2.10)}{-0.9808} + \underset{(5.10)}{1.9363}*DF1$$

In this expression, DF1 is a binary variable taking on the value of 1 if the mean score on "distinctiveness" is higher under the new name and 0 otherwise. The coefficient of DF1 in the final model is significant at the .02 level (1);

Table 3
CUMULATIVE ABNORMAL RETURNS (CAR)

COMPANY NAME	MEAN RETURN	CAR
A. Group 1		
Armstrong World Industries	-0.0017984	0.10119
Artra Group Inc	0.0022488	0.03172
Basix Corp	0.0001223	0.08540
Circuit City Stores	0.0038052	0.07971
Gencorp Inc	-0.0006966	0.01666
Hartmarx Corp	0.0043733	0.10064
IPCO Corp	-0.0007641	0.08805
Irving Bank Corp	-0.0006492	0.13834
Lukens Inc	-0.0002758	0.04805
McKesson Corp	0.0012301	0.02611
Oneok Inc	0.0030297	0.02011
TNP Enterprises	-0.0003018	0.03610
Tranzonic Companies	-0.0005152	0.07682
Tridex Corp	0.0020667	0.03447
Tucson Electric Power	0.0002231	0.01970
Vista Resources	0.0009761	0.02759
Averages	0.0008448	0.05817
B. Group 2		
Allegheny International Inc	0.0020877	-0.10191
American General Corp	-0.0009745	-0.03745
Armatron International	0.0071404	-0.09639
Bic Corp	-0.0015985	-0.01448
Coastal Corp (The)	0.0039872	-0.06524
Commonwealth Energy System	0.0012493	-0.04737
GF Corp	0.0043733	-0.03336
Mellon Bank	-0.0021943	-0.00646
Mortgage & Realty Trust	0.0027696	-0.03040
Rymer Co	0.0019912	-0.04058
Steego Corp	0.0020729	-0.02751
Teco Energy Inc	0.0011292	-0.00720
Averages	0.0018361	-0.04236
t-statistic for difference in CAR		-7.7288
p-value		0.0001
t-statistic for difference in Mean Return		1.1070
p-value		0.2822
Statistic for difference in volatility of returns ($\sigma_{Group\ 1} = 0.0358$, $\sigma_{Group\ 2} = 0.0669$)		0.7883
p-value		0.4390

Notes: Mean return is the rate of return calculated over the estimation period.
CAR is the cumulative abnormal return estimated over the 17-day event window.

this indicates that the more "distinctive" the new name, the higher the (logarithm of the) odds that the name change will be associated with positive abnormal stock return than with negative stock price reaction. This finding indicates that "distinctiveness" is the most important characteristic in explaining the difference in abnormal stock return rates of the two groups of firms. This finding may partially explain the Dartmouth findings that stock return rates actually increased for firms with acronyms, truncated and hyphened names--all of these names are considered by advertising researchers to be distinctive.

V. Conclusion

An effective signal is "one in which the agents behave as if their assessed distributions of securities' future values are formed conditionally on the signal..." (Gonedes, 1978). In this study inexperienced stock investors who were unfamiliar with a company's name change activities did not favor either the old or the new name on "image" appeal. Hence, image alone may not influence a potential investor's decision to buy that firm's stock. Functional characteristics, however, are likely to be more important for a company that invests several thousands or millions of dollars changing a corporate name. Certainly, a corporation won't change its name unless the expected benefits outweigh the tangible and intangible costs. In this sample of 28 firms, only one of the former names had more of the functional characteristics than the new name. This finding appears to indicate the former name was perhaps a "better" name because it was more relevant than the new name. This image analysis, however, did not take into account which of the five characteristics was most critical in the selection of a new corporate name, so an event study methodology was used.

After separating the 28 firms into two groups based on positive and negative CARs, we found there was a significant difference between the means for the two groups of CARs. Furthermore, this difference could not be attributed to a difference in investment risk. We hypothesized that one or more of the five functional characteristics of a good, effective corporate name could help explain the difference in CARs.

Using a stepwise logistic regression model, we found that "distinctiveness" was the most important functional characteristic that affected the relationship between the new corporate name (independent variable) and the abnormal stock return rates. Distinctive names identify the company and set it apart from other firms. Distinctive names avoid use of generic-sounding names such as Allied, National, and United. Rather uncommon names tend to establish a proprietary position in the marketplace by drawing attention to a company, and possibly affecting common stock price performance.

While the other four functional name characteristics (relevant, memorability, flexibility, and positive) were not significant, this does not imply they should be ignored in the selection of corporate names. A distinctive name is interrelated to these other factors, and this particular label may capture all of the five important functional name criteria. That is, a short name that is uniquely spelled, is an unusual pronunciation, or is a hyphened name is not only memorable, but distinctive. A relevant name is not necessarily a simple, literal description of the service such as Overnight Delivery Service, but is a name that is resonate with indirect connotations. For example, ZapMail is not only relevant, but also distinctive. If a company is likely to change direction, it should possess a name that allows for growth and expansion of activities. A flexible name is one that does not restrict the company to a specific geographic region or to a specific product line, e.g., Northwest Trucking Company. A name such as Garrett Freight Lines appears to be distinctive and also provides opportunities for growth. Finally, as the corporation's publics change, the name must elicit positive feelings and attitudes. While Fluorocarbon Company (Laguna Niguel, California) is certainly a name that attracts attention, it also sends negative signals to the general public which is becoming more environmentally conscious (Higgins, 1989).

An interesting extension of this study would be to determine if advertising costs and functional characteristics interact to produce higher, positive *long-term* stock performance. We did not consider advertising costs in our study because our interest was on the *initial* reaction --- investors' reaction several days prior to and including the day of a name change announcement as reported in the *Wall Street Journal (WSJ)*. Typically, the *WSJ* report announces the adoption of a new name. The announcement is then *followed* by an extensive promotional and advertising campaign by the firm implementing the name change. Whether extensive advertising enhances or alleviates initial stock market reaction is an issue for future research.

Endnotes

1 The model chi-square is 5.73, with a probability value of 0.0167. The pseudo-R^2 is 9.36 percent, with a concordance index of .714. The chi-square for the other four characteristics not in the model is 5.29, which has a probability of 0.3818. Thus, none of the other four characteristics add to the

explanation of the difference in CARs, given that *distinctiveness* is already in the model.

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