Advances in Management & Applied Economics, vol. 3, no.6, 2013, 129-141
ISSN: 1792-7544 (print version), 1792-7552(online)
Scienpress Ltd, 2013

The Impact of Brand Value on Financial Performance

Feng Jui Hsu[1], Tsai Yi Wang[2,*] and Mu Yen Chen[3]

Abstract

This paper examines the relationship between brand value and stock performance of companies by using the historical stock performance of global brand stocks to test whether strong brands outperform the market index. A company is considered a brand stock if it is included in the annually published Interbrand Global Top 100 Brands ranking list. We investigate whether numeric brand values assigned by Interbrand have an effect on the brand portfolio return and the possible short-term announcement effects around the time of the survey's publication, and longer-term returns for companies.
The conclusions are summarized as follows:
The finding indicates that brand portfolio outperforms S&P index in various holding periods.
Brand portfolio generates a significantly positive risk adjusted alpha. This result is in line with prior research results.
The brand portfolios have the ability of selecting proper stocks.
There are positive evidences that market reaction to a firm's presence in the top firms that are made public, and that investors of the stock of such firms earn abnormal returns during an announcement window. After evaluate the empirical specification based on both CARs and BHARs, the abnormal returns still exist during the announcement window.

JEL classification numbers: G14, G18, G32
Keywords: Brand value, Brand ranking list, Brand stocks, Intangible assets, Excess returns

[1]National Chung Hsing University, Taiwan.
[2]National Taichung University of Science and Technology, Taiwan.
[3]National Taichung University of Science and Technology, Taiwan.

Article Info: *Received* : July 27, 2013. *Revised* : August 26, 2013.
Published online : November 15, 2013

1 Introduction

Brands are a company's most valuable intangible asset, and, over the past decade, managers at many firms have made brand development a top priority (Keller & Lehmann, 2006). The concept of brand equity incorporates intangible brand properties such as brand-name awareness, brand loyalty, perceived brand quality and favorable brand symbolism and associations. Brand equity is a key aspect in creating a firm's competitive advantage and hence is important for generating future earnings streams. Several researchers have argued that successful branding leads to tangible outcomes since firms with strong brand equity can more easily expand demand for their products and services through internationalization and brand extensions (see e.g. Aaker, 1991).

During the past few decades brand consulting firms have emerged to quantitatively assess the value of prominent brands collected into annual rankings. Founded in 1974, Interbrand is one of the most renowned brand consultancies. The firm began ranking American brands in 1984 and global brands in 1999, and is considered to be the market leader of brand valuation due to its long experience. According to Interbrand's 2010 rankings, Coca-Cola had the world's most valuable brand, valued at $70 billion, representing 47% of the firm's $149 billion market value.

Barth et al. (1998a) found that brand valuations published by an independent agency are reflected in a firm's share price. In addition, they found that brand value is positively associated with advertising expenses, operating margins and market share. Moreover, Kerin et al. (1998) found a significant positive relationship between brand values and the market-to-book ratios of American consumer goods companies. Several studies have also explored the relationship between intangible assets and stock market performance, with Madden et al. (2006) finding that strong American brands deliver greater long-term stock returns with less risk.

The present research analyzes the relationship between brand value and corporate performance. Investors prefer to hold shares in well-known companies, and measure corporate performance by evaluating indicators, including brand awareness, R&D intensity, advertising intensity, profitability. Brand value is also a key indicator for investors. Brand value is an important tool for management, and can be used as an indicator in assessing corporate performance and risk.

This research attempts to add the brand parameter value to Fama and French' s (1993) three-factor model using the Panel Data model. Informed by previous work, this study explores the relationship between brand value and brand portfolio performance by examining the impact of perceived brand quality on corporate value. We create a brand portfolio based on the Interbrand's Top 100 Brand list from 2001 to 2010.

The remainder of this article is organized as follows: Section 2 presents the theoretical background of the research. Section 3 presents the model and describes the hypotheses. Section 4 describes the methodology of our study, and Section 5 discusses the results and the limitations of the research. In the final section summarizes the conclusions derived from the results.

2 Theoretical Backgrounds

An intangible asset can be defined as an identifiable, non-monetary asset lacking physical substance. Kim et al. (2003) studied the relationship between Aaker's brand equity attributes and the financial performance of luxury hotels, finding that brand loyalty, awareness and image have a significant positive effect on profitability whereas brand quality is not linked to financial performance. Capraro and Srivastava (1997) studied the market-to-book ratios of Fortune 500 companies, with results suggesting that more than 70% of the market value of these companies lies in intangible assets. Simon and Sullivan (1993) argued that intangible assets account for the difference between a firm's market value and the book value of its assets or their replacement cost. Lane and Jacobson (1995) suggested that intangible assets such as brands allow firms to create earnings beyond those generated by tangible assets alone.

Excess stock return is the abnormal return above the risk free rate or an appropriate benchmark index. Theories explaining equity returns assume the Efficient Market Hypothesis along with investor rationality. Previous explanations for the relationship between intangible assets and excess returns focus on the mispricing assumption and the compensation for additional risk-bearing assumption. According to the Efficient Markets Hypothesis (EMH), a share price fully reflects all the available information on expected cash flow to shareholders. Thus, the market value of a stock is seen as the most accurate measure of a firm's tangible and intangible assets. Edmans (2011) argues that intangibles only affect the stock price when they are later translated into tangible outcomes that are again valued by the stock market. A high brand value and brand ranking might also act as a proxy for other firm characteristics that may lead to share price over-performance.

However, such mispricing based on high brand value might be temporary. Edmans (2011) finds that the returns for firms included in the "America's Best Places to Work" list decline sharply in the fifth year following initial inclusion, even for firms that remain on the list for all five years. Furthermore, buying stocks that drop from the list or failing to update the portfolio according to the most current list results in lower returns than when the portfolio is updated annually. Edmans (2011) argues that there are two reasons for this. First, the list content varies from year to year, thus the value of intangibles (and their resulting mispricing) fall over time. Secondly, the market may learn the true value of a firm's intangible assets as they materialize into positive tangible outcomes, allowing the stock market to correct the underpricing.

Brand funds have seen strong average performance in recent years. For instance, the Morgan Stanley Global Brands Fund beat its benchmark by 18.25% from April 2006 - January 2011 (Morgan Stanley, 2011). The Nordea Emerging Consumer Fund generated a return of 46% from November 2008 – March 2011. The Pictet Premium Brands Fund has earned a cumulative return of 29% during the past five years compared to a -2.7% return earned by its benchmark MSCI World Discretionary during the same time period. On the other hand, FIM Brands yielded only 2.9% during the past five years compared to its benchmark's -1.4%.

Several studies have shown that excess returns are correlated with several firm characteristics. Lev and Sougiannis (1996) found a Fama-French risk-adjusted annual excess return of 4.57% for R&D-intensive American companies during 1975-1989. Chan et al. (2001) found a 7.83% annual abnormal return based on R&D relative to firm market value for American stocks listed in the NYSE, AMEX and Nasdaq. They also found similar results for advertising expenditures. Also Conchar et al. (2005) found a positive

link between spending on advertising and promotions and firm market value, further supporting the argument that brand building activities contribute to improved financial performance.

3 Hypotheses

The benefit of a strong brand to firm performance is widely recognized in the marketing literature. However, how stock market valuations incorporate independently-assessed brand value and brand ranking list information is still a matter of debate. Prior studies in finance have found evidence to suggest that intangible assets are not fully valued by the stock market and hence firms with significant intangible assets might be undervalued (e.g. Edmans, 2011; Chan et al., 2001). Furthermore, Madden et al. (2006) discovered that American firms with strong brands included in the Brand's "Top 100 Most Valuable Global Brands" list during 1994-2001 generated excess returns when compared to a relevant benchmark.

This paper investigates the influence of brand value on financial performance. Intangible assets are difficult to measure and compute because they do not appear on a firm's balance sheet, and thus could be underpriced by equity markets. Recent studies have attempted to explain the relationship between a firm's intangible assets and its financial performance. (Puffer, 1987; Filbeck & Preece, 2003a).

Madden et al. (2006) base other hypothesis on several prior study results which suggest that brand development strategies create shareholder value, manifested as above average stock returns. The brand equity models provide reasonable evidence that branding creates tangible financial outcomes that should have a positive effect on a company's share price. Stock market returns increase when brand values are used as portfolio weights, signaling the importance of nominal brand value as determined by an independent agency, Interbrand in this case. Several brand value relevance studies (Kerin et al., 1998; Kallapur and Kwan, 2004) indicate that the values assigned to brands by independent brand agencies are reliable and therefore using brand values as portfolio weights should have a positive effect on portfolio performance, as higher brand values should be reflected in firm performance. Madden et al. (2006) continues that brand value estimates should provide incremental information about firm performance that might be useful in investment decision making. Hence, a brand portfolio incorporating detailed brand value information should outperform a brand portfolio that does not include this information.

The data used here to capture intangible assets have several advantages over those used in earlier studies. Data from Business Ethics and KLD STATS were used to construct a multidimensional consideration to measure firm social performance. Business Ethics Top 100 considers 13 measurements of a firm's social responsibility, including the quality of its community, corporate governance, diversity, employee relations, environment, human rights, product, and 6 other business issues. The Best Global Brands list is jointly published by BusinessWeek and Interbrand and ranks the top 100 global brands by brand value. Inclusion criteria focus on the creation, enhancement, maintenance and valuation of corporate brands.

This paper considers the influence of different annual survey lists and styles to determine the robustness of our findings. We also account for both short-term and long-term abnormal returns through various statistical methods and several intangible assets components.

4 Methodology

A firm's brand is an intangible asset that cannot expressed on its balance sheet. The aim of this paper is to investigate the impact of brands on investment portfolio performance to construct improved investment strategies, and to indentify the criteria power of different intangible assets in different window periods. Brand data was collected from the 100 Best Global Brands annual survey published by Business Week, along with Fortune Magazine's annual "100 Best Companies to Work For" from 2001 to 2010. Monthly returns and firm industry codes were extracted from the CRSP database. The S&P 500 index was used as a benchmark, with monthly returns obtained from the Datastream database. We excluded companies for which the industry codes or one of the return variables was missing.

Given the benefit perceived brand quality has for a firm, the impact of brand quality on financial performance is an important consideration. Empirical studies on the financial outcomes of brand quality show a positive correlation with stock returns (Aaker & Jacobson, 1994; Kerin & Sethuraman, 1998; Madden, Fehle, & Fournier, 2006) and high-quality brands are more likely to lead to higher profits by allowing firms to sell premium limited edition products (Balachander & Stock, 2009).

We consider an investment strategy based on firms listed in the 100 Best Global Brands. Using a buy-and-hold strategy, an equally-weighted portfolio is bought at the beginning of the sample period and held throughout the sample period. In our analysis, we include publicly traded firms listed each year, updating the portfolio annually to reflect changes in list composition. The S&P 500 is used as a benchmark for performance comparison.

Our analysis of the impact and financial performance of our selected sample is divided into two parts. The first part observes the market impact of announcements over a seven month trading window following the annual publication of the brand rankings. The announcement month is defined as month t, and we consider abnormal returns (using S&P 500 returns as a benchmark) for months t to t+6. We calculate abnormal returns for each month within the event window, and then consider cumulative abnormal returns from t to t+6. The statistical significance of abnormal returns can be calculated using the conventional t-statistic of the equation

$$t - stat_t = \frac{\overline{AR_t}}{\sigma(AR_t)/\sqrt{n_t}} \tag{1}$$

where $\overline{AR_t}$ is the mean cumulative abnormal return in month t, $\sigma(AR_t)$ is the cross-sectional standard deviation of abnormal return in month t, and n_t is the number of firms in the portfolio in month t. Furthermore, we also consider long-run abnormal returns (from one to five years in one year increments).

In the second part, we assess the empirical description of our research and statistical significance of our investment portfolio based on both cumulative abnormal returns (CARs) and buy-and-hold abnormal returns (BHARs) at the half-year horizon and then at annual increments for the following five years. CAR and BHAR are defined as $CAR_{i\tau} = \sum_{t=1}^{\tau} AR_{it}$ and $BHAR_{i\tau} = \prod_{t=1}^{\tau}[1 + R_{it}] - \prod_{t=1}^{\tau}[1 + E(R_{it})]$, respectively. We use the return on an S&P 500 index portfolio as the expected return for each sample firm when computing CAR or BHAR.

$$t_{CAR} - stat_t = \frac{\overline{CAR_t}}{\sigma(CAR_t)/\sqrt{n_t}} \quad (2)$$

$$t_{BHAR} - stat_t = \frac{\overline{BHAR_t}}{\sigma(BHAR_t)/\sqrt{n_t}} \quad (3)$$

where $\overline{CAR_t}$ and $\overline{BHAR_t}$ are the sample means, $\sigma(CAR_t)$ and $\sigma(BHAR_t)$ are the cross-sectional standard deviation of the abnormal return in month t, and n_t is the number of firms.

We consider the differences between CARs and BHARs because BHARs consider compounding while CARs do not. If individual stock returns are more volatile than the returns of the benchmark, the CARs will outperform the BHARs if the BHAR is less than or equal to zero. In addition, the difference between CARs and BHARs will approach zero and finally become negative as the annual BHAR becomes increasingly positive. Cumulating across τ periods provides a cumulative abnormal return (CAR):

$$CAR_{i\tau} = \sum_{t=1}^{\tau} AR_{it} \quad (4)$$

On the other hand, the return on the buy-and-hold strategy is the share price of the sample firm less the return on a buy-and-hold investment portfolio with a suitable expected return.

$$BHAR_{i\tau} = \prod_{t=1}^{\tau}[1 + R_{it}] - \prod_{t=1}^{\tau}[1 + E(R_{it})] \quad (5)$$

5 Results

Table 1 summarizes the stock return impact following the announcement that a firm has been included in the 100 Best Global Brands for that year. At the beginning of the sample period, the buy-and-hold strategy buys an equally weighted portfolio of firms listed for that year, and holds these firms for the entire sample period. The first and third columns below each header present the abnormal returns for all firms contained in the 100 Best Global Brands for the event period lasting 60 months from the initial announcement. The results indicate that the market seems to view inclusion in the 100 Best Global Brands positively. The post-announcement cumulative abnormal returns are positive on average from the 6th to the 60th trading month after publication. The raw return difference between our annual list portfolio and the S&P 500 is 4.01%, 11.70%, 22.40%, 28.90%, 31.24%, and 35.06%, respectively, after six months and one to five years. The statistical results for the raw returns demonstrate the robustness of our findings which are similar to results from Boyle (2006) and Brammer et al. (2009). Furthermore, the cumulative returns in year five are particularly large. Accordingly, the information impact value of being listed in 100 Best Global Brands is likely to have been largest during that year.

Statistical results for the different annual lists provide the statistically significant and various return patterns for the different event periods. Our findings show returns in the holding periods, but the cumulative abnormal return patterns are more stable for firms listed in 100 Best Global Brands survey. Since inclusion in the annual list represents an intangible asset, there are three reasons behind the various announcement effects. First, different information transmits results. Second, Different information exposes intensity.

Finally, the intensity of investor understanding differs for the various lists.

The effects of inclusion in the list were found to be significant, which is consistent with findings reported by Anderson and Smith (2006) that companies included in the Top 10 Most Admired Companies from 1983 to 2004 earned 67.26% abnormal returns versus S&P 500 following a buy-and-hold strategy for 1250 trading days (i.e., 5 years). This finding has two possible explanations. First, it is possible that investors take considerably longer to react to intangible assets that do not show up in a firm's balance sheet. Second, even if investors disregard the annual survey data, inclusion in the list may still provide positive signals when the listed firms provide relatively higher returns. We calculate the empirical description and statistics based on both CARs and BHARs at the half-year point and then annually from year one to year five. We take the return on the S&P 500 index as the expected return for each sample firm when computing a CAR or BHAR value. The resulting CAR and BHAR patterns are similar, with both increasing in stability. As the annual BHAR becomes increasingly positive, the difference between the two values will first approach zero and then become negative. Grullon et al. (2004) found a positive and statistically significant relationship between firm advertising expenditures and the number of investors. This relationship could potentially be the source of the difference between CAR and BHAR.

Tables 1 and 2 present the announcement event window returns and t-ratios for the various portfolios, showing the raw return for month t. The Diff. column shows the difference between the return of the list portfolio and the benchmark portfolio.

For each year, Business-Week announces the Top 100 firms. We exclude stocks untraded on the market. For each annual indicator, we compute the cross-sectional raw return for month t. Table 1 reports the raw return of Top Brand and S&P 500. The Diff. reports the difference between the return of the annual indicator versus the benchmark portfolio. The CARs and BHAR can be defined as $\mathrm{CAR}_{i\tau} = \sum_{t=1}^{\tau} \mathrm{AR}_{it}$ and $\mathrm{BHAR}_{i\tau} = \prod_{t=1}^{\tau}[1 + \mathrm{R}_{it}] - \prod_{t=1}^{\tau}[1 + \mathrm{E}(\mathrm{R}_{it})]$, respectively. Besides β, all numbers are in percentages.

Table1: Announcement Window Returns, Long-Term Excess Returns

	100 Top Brands Portfolio		S&P500 Portfolio			100 Top Brands Portfolio		
T	Raw return	Std Dev.	Raw return	Std Dev	Diff.	CARs	BHAR	β
0-6	4.03	0.0231	0.02	0.0143	4.01^{*}	3.67	3.15	1.191
0-12	11.95	0.0394	0.26	0.0151	11.70^{***}	10.35	8.64	1.147
0-24	23.59	0.0568	1.20	0.0191	22.40^{***}	19.82	16.73	1.156
0-36	32.51	0.0896	3.62	0.0236	28.90^{***}	25.77	26.07	1.141
0-48	40.24	0.1219	8.82	0.0390	31.42^{***}	31.90	39.40	1.113
0-60	46.55	0.1477	11.49	0.0515	35.06^{***}	38.07	54.45	1.109

Notes: 1. * and *** denote the significance at the 10% and 1%, respectively.
2. Std Dev. Denotes standard deviation.
3. Diff. denotes the difference between two groups.
4. T denotes time period.

Table 2: Measures of Indicator Risk Adjusted

100 Top Brand indicator						
Time period	Sharpe	Treynor	M^2	alpha	S&P Sharpe	S&P Treynor
0-6	0.1698	0.0035	0.48%	1.05%	-0.0785	-0.0015
0-12	0.3761	0.0066	0.77%	0.40%	0.0258	0.0004
0-24	0.4208	0.0067	0.78%	1.24%	0.0220	0.0003
0-36	0.3819	0.0062	0.75%	0.66%	-0.0150	-0.0002
0-48	0.3239	0.0058	0.72%	1.20%	-0.0505	-0.0008
0-60	0.2602	0.0053	0.65%	1.26%	-0.0842	-0.0015

To ensure robust results, we extended the review period from 6 months to 12 months, Table 3 presents results for 5-year buy-and-hold, with a difference of ROE of -3.36%, -0.38%, 0.27% and 0.21%, respectively for years two to five. The difference of ROE is positive when the sample period is extended. These results indicate that the value of the 100 Top Brands portfolio. Year one shows the highest ROE results, thus demonstrating that the short-term value of brands and other intangible assets.

Table 3: Firms Accounting variable

100 Top Brands Portfolio ROE			
Time period	All sample	Difference	P-Value
0-12	28.15%		
13-24	24.78 %	-3.36	(0.058)*
25-36	24.41%	-0.38	(0.827)
37-48	24.68%	0.27	(0.878)
49-60	24.88 %	0.21	(0.894)

Notes: 1. * denotes the significance at the 10%.

We investigate the long-term effect of inclusion in the annual lists for firms that have been newly added to the list, or have had their rankings shift up or down over multiple years. Table 4 shows that all long-term effects are statistically significant. The continuing effect of raw return in all sample firms is different than that for newly-listed firms, and these results are statistically significant over the 5-year sample period. However, both sample firms and newly-listed firms, the continued effect of raw return increases and maintains a certain inequality in years 2~5. Our findings are consistent with those of DeBondt and Thaler (1985, 1987), and Brammer et al. (2009) in that firms being added to the list or improving their rankings enjoy strong stock returns but continued inclusion in the list year after year is associated with negative abnormal returns.

Table 4: Cumulative Abnormal Return for Various Investment Portfolios

Panel A: 100 Top Brands Portfolio Raw return between all sample and newly firms

T	All sample portfolio	New entering indicator portfolio	Difference	P-Value
0-6	4.03%	-1.74%	-5.77%	(0.299)
0-12	11.95%	11.15%	-0.80%	(0.157)
0-24	23.59%	29.85%	6.26%	(0.584)
0-36	32.51%	35.91%	3.39%	(0.236)
0-48	40.24%	41.35%	1.11%	(0.388)
0-60	46.55%	46.63%	0.08%	(0.691)

Panel B: 100 Top Brands Portfolio Raw return between all sample and Upgrade firms

T	All sample portfolio	Ranks upgrade portfolio	Difference	P-Value
0-6	4.03%	8.57%	4.54%	(0.004)***
0-12	11.95%	17.86%	5.90%	(0.006)***
0-24	23.59%	25.36%	1.76%	(0.001)***
0-36	32.51%	34.85%	2.34%	(0.015)**
0-48	40.24%	42.98%	2.74%	(0.080)*
0-60	46.55%	47.55%	1.01%	(0.368)

Panel C: 100 Top Brands Portfolio Raw return between all sample and Downgrade firms

T	All sample portfolio	Ranks downgrade portfolio	Difference	P-Value
0-6	4.03%	1.11%	-2.92%	(0.043)**
0-12	11.95%	14.78%	2.83%	(0.744)
0-24	23.59%	26.05%	2.45%	(0.293)
0-36	32.51%	33.35%	0.83%	(0.283)
0-48	40.24%	39.50%	-0.74%	(0.566)
0-60	46.55%	47.87%	1.32%	(0.718)

Panel D: 100 Top Brands Portfolio Raw return between all sample and Continuously 2-years firms

T	All sample portfolio	Continuously 2-years in indicator portfolio	Difference	P-Value
0-6	4.03%	4.45%	0.41%	(0.454)
0-12	11.95%	15.40%	3.45%	(0.340)
0-24	23.59%	24.76%	1.16%	(0.063)*
0-36	32.51%	32.72%	0.21%	(0.147)
0-48	40.24%	39.77%	-0.47%	(0.406)
0-60	46.55%	45.37%	-1.18%	(0.766)

Panel E：100 Top Brands Portfolio Raw return between all sample and continuously 3-years firms

T	All sample portfolio	Continuously 3-years in indicator portfolio	Difference	P-Value
0-6	4.03%	5.07%	1.03%	(0.198)
0-12	11.95%	13.85%	1.90%	(0.291)
0-24	23.59%	22.28%	-1.32%	(0.252)
0-36	32.51%	29.38%	-3.13%	(0.720)
0-48	40.24%	35.43%	-4.81%	(0.629)
0-60	46.55%	36.13%	-10.42%	(0.110)

Panel F：100 Top Brands Portfolio Raw return between all sample and Continuously 4-years firms

T	All sample portfolio	Continuously 4-years in indicator portfolio	Difference	P-Value
0-6	4.03%	-20.27%	-24.30%	(0.000)***
0-12	11.95%	-9.04%	-20.99%	(0.000)***
0-24	23.59%	-0.98%	-24.58%	(0.000)***
0-36	32.51%	5.76%	-26.75%	(0.000)***
0-48	40.24%	7.19%	-33.05%	(0.000)***
0-60	46.55%	12.53%	-34.02%	(0.000)***

Panel G：100 Top Brands Portfolio Raw return between all sample and Continuously 5-years firms

T	All sample portfolio	Continuously 5-years in indicator portfolio	Difference	P-Value
0-6	4.03%	-26.72%	-30.75%	(0.000)***
0-12	11.95%	-13.11%	-25.06%	(0.000)***
0-24	23.59%	-4.82%	-28.41%	(0.000)***
0-36	32.51%	-2.56%	-35.08%	(0.000)***
0-48	40.24%	3.48%	-36.76%	(0.000)***
0-60	46.55%	13.45%	-33.09%	(0.000)***

Notes: 1. *, **, and *** denote the significance at the 10%, 5%, and 1%, respectively.
2. T denotes time period.

For each list, we select newly-added firms along with firms that have had their rankings rise or fall over a period ranging from two to five years. Table 5 shows the raw return for the modified 100 Top Brands portfolio, which includes upgraded firms, but deletes downgraded firms as ranked by Interbrand. Table 5 reports the average return following the annual announcement. Besides, in Table 5, we further consider the firms' unsafe item related with its' products or services. In order to capture firms' unsafe items, we use KLD database as a proxy of product negative image. The rightmost column reports the difference in p-value between the ranks-upgrade firms and the without unsafe-item firms.

Table 5: Application of KLD database and Performance

Raw return between Upgrade firms and delete unsafe item in KLD				
T	Upgrade raw returns	Raw returns without unsafe item	Difference(benchmark Upgrade)	P-value
0-6	8.57%	3.41%	-5.16%	(0.003)***
0-12	17.86%	11.26%	-6.60%	(0.007)***
0-24	25.36%	23.37%	-1.98%	(0.011)**
0-36	34.85%	32.67%	-2.18%	(0.158)
0-48	42.98%	43.62%	0.64%	(0.344)
0-60	47.55%	53.54%	5.98%	(0.988)
0-72	49.47%	64.73%	15.26%	(0.319)
0-84	57.51%	71.57%	14.06%	(0.100)*

Notes: *, **, and *** denote the significance at the 10%, 5%, and 1%, respectively.

6 Conclusions

Prior research on brand value has focused on the relationship between brands and other intangible assets and stock performance. The present study demonstrates a positive correlation between brand value and stock performance. Only limited research has been conducted on intangible assets and on brands in particular. The results of the present study suggest that brand value is positively correlated with year-end share price, and that an increase in brand value correlates positively with the annual stock return. Brand value estimates calculated by independent agencies are found to be reflected in share prices when controlling for book values of equity and net income. The results are statistically significant and also hold for the simultaneity bias, which refers to the bias of share prices affecting brand values. Using data from the 100 Global Brands annual ranking from 2001 to 2010, we find that firms included in list create statistically significant and positive cumulative abnormal returns in half-year to 5-year windows following the initial inclusion in the list. The results are consistent with previous studies. We find statistically significant differences between CARs and BHARs from year one to year five following inclusion in the list. Excluding firms that appear in the list every year, the remaining firms were statistically significant in all time windows.

We also consider the effect of continued inclusion in the list for long- and short-term portfolios to assess possible over-reaction on the part of investors. The difference is greatest for newly-listed firms and those with improved rankings, but the magnitude of difference falls significantly in subsequent years and gradually disappears. It could be that the publicity connected with first being included in the 100 Global Brands list influences investor perception of the firm's value, thus pushing stock prices higher. Furthermore, if investors consider firms safety-related item in their portfolio, they will earn excess return in the long-term.

References

[1] D. Aaker and R. Jacobson, The Financial Information Content of Brand Quality, *Journal of Marketing Research*, **31**, May, (1994), 191–201.

[2] D. Aaker, Managing Brand Equity: *Capitalizing on the Value of a Brand Name*, New York: Free Press, 1991.

[3] J. Anderson and G. Smith, A Great Company Can Be a Great Investment, *Financial Analyst Journal*, 62(4), (2006), 86-93.

[4] S. Balachander and A. Stock, Limited Edition Products: When and When Not to Offer Them, *Marketing Science*, **28**(2), (2009), 336–355.

[5] M. E. Barth, M. Clement, G. Fosthr and R. Kasznik, Brand Values and Capital Market Valuation, *Review of Accounting Studies*, **3**, (1998a), 41-68.

[6] M. Boyle, Happy People, Happy Returns, *Fortune*, 153(1), (2006), 100-110.

[7] S. J. Brammer, C. Brooks and S. Pavelin, The stock performance of America's 100 Best Corporate Citizens, *The Quarterly Review of Economics and Finance*, **49**, (2009), 1065–1080.

[8] A. J. Capraro and R. K. Srivastava, Part IV: How Do Reputations Affect Corporate Performance?: Has the Influence of Financial Performance on Reputation Measures Been Overstated?, *Corporate Reputation Review*, **1**(1), (1997), 86-92.

[9] L. K. Chan, J. Lakonishok and T. Sougiannis, The Stock Market Valuation of Research and Development Expenditures, *Journal of Finance*, **56**(6), (2001), 2431-2456.

[10] M. P. Conchar, M. R. Crask and G. M. Zinkhan, Market valuation models of the effect of advertising and promotional spending: a review and meta-analysis, *Journal of the Academy of Marketing Science*, **33**(4), (2005), 445-460.

[11] W. F. M. DeBondt and R. H. haler, Further evidence on overreaction and stock market seasonality, *Journal of Finance*, **42**, (1987), 557-581.

[12] W. F. M. DeBondt and R. H. haler, Does the stock market overreact?, J*ournal of Finance*, 40, (1985), 793–805.

[13] A. Edmans, Does the Stock Market Fully Value Intangibles? Employee Satisfaction and Equity Prices, *Journal of Financial Economics*, **101**(3), (2011), 621-640.

[14] E. F. Fama and K. R. French, Common risk factors in the returns on stocks and bonds, *Journal of financial economics*, **33**(1), (1993), 3-56.

[15] G. Filbeck and D. Preece, Announcement effects of the working mother annual survey of family-friendly firms, *Journal of Investing*, **12**(3), (2003a), 87–95.

[16] G. Grullon, G. Kanatas and J. P. Weston, Advertising, breadth of ownership, and liquidity, *The Review of Financial Studies*, **17**(2), (2004), 439–461.

[17] S. Kallapur and S. Y. Kwan, The Value Relevance and Reliability of Brand Assets Recognized by U.K. Firms, *Accounting Review*, **79**(1), (2004), 151-172.

[18] K. L. Keller and D. R. Lehmann, Brands and branding: Research findings and future priorities, *Marketing Science*, **25**(6), (2006), 740-759.

[19] A. R. Kerin, V. Mahajan and P. Varadarajan, *Contemporary Perspectives on Strategic Market Planning*, Boston, Allyn & Bacon, 1998.

[20] R. A. Kerin and R. Sethuraman, Exploring the brand value-shareholder value nexus for consumer goods companies, *Journal of the Academy of Marketing Science*, **26**, (1998), 260–273.

[21] H. B. Kim, W. G. Kim and J. A. An, The Effect of Consumer-Based Brand Equity on Firm's Financial Performance, *Journal of Consumer Marketing*, **20**(4), (2003), 335-351.
[22] V. Lane and R. Jacobson, Stock market reactions to brand extension announcements: the effects of brand attitude and familiarity, *The Journal of Marketing*, **56**, (1995), 63-77.
[23] B. Lev and T. Sougiannis, The Capitalization, Amortization and Valuerelevance of R&D, *Journal of Accounting and Economics*, **21**, (1996), 107-138.
[24] T. J. Madden, F. Fehle and S. Fournier, Brands matter: an empirical demonstration of the creation of shareholder value through branding, *Journal of the Academy of Marketing Science*, **34**(2), (2006), 224-235.
[25] S. M. Puffer, Prosocial Behavior, Noncompliant Behavior, and Work Performance Among Commission Salespeople, *Journal of Applied Psychology*, **72**(4), (1987), 615-621.
[26] C. J. Simon and M. W. Sullivan, The measurement and determinants of brand equity: a financial approach, *Marketing science*, **12**(1), (1993), 28-52.