

An Effect of Brand Valuation Reports on Korea Equity Market: Using the Event Study based on Korea Best Brands by Interbrand from 2013 to 2015

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Abstract. Precise brand valuation is not easy because brand are intangible asset varied by global circumstances and consumption trend. In financial market, investors could consider brand valuation reports as important information to decide whether to invest or not. Therefore, the announcement of brand value influences on the stock prices of listed companies. Using the event study methods, this study finds that fallen group and ascended group in brand value have no effects before the event day.

Keywords: Korea Best Brand, Brand Value, Event Study.

1 Introduction

As popular new products have dominant impacts on the short-term performance, well-established brands have an important role on the long-term performance and customer perceptions. Recently literature considers brands as assets that changed the perceptions of brand management and brand valuation methods [1]. Companies try to establish creditable brands that build good customer loyalty, strategic growth, and innovations. Relatively powerful brands give parent companies higher financial performance and more positive image than others.

It is important information to investors who have to judge whether they invest or not. Many investors in financial market could pay attention to brand valuation reports like Korea Best Brands by Interbrand. Considering this point, this study researches whether the announcement of brand valuations of Interbrand have an effect on the listed companies.

2 Brand Value

Early times, brands are considered just as logo. In the late 1980s, these thoughts are changed that brands are assets to raise business value and to impact business strategy [1]. Brand value is defined as assessment of the general financial value of the brand [2]. Trustworthy brands have latent product premium [3] [4], higher customer loyalty [1] [5], and financial benefits [1] [6].

There are various literatures on how to measure brand value. Brand valuation methods divided by consumer-level or firm-level [7]. The former is defined by component of utility [6] [8], equalization price [3], the difference in the customer's willingness to pay for a branded product as compared with identical unbranded [9]. The latter is defined by revenue premium [4], and incremental profit contribution [10]. Newly literatures considered these two methods [5]. Interbrand evaluates brand value based on financial performance, the Role of Brand Index (RBI), and brand strength.

3 The Event Study

The event study is to measure the abnormal return triggered by the event under researchers' model. The abnormal return is the discrepancy between actual stock return and its index returns for the identical period. These methods are suitable in business research to evaluate the impacts of the special events like marketing event [12], and financial event [13].

3.1 Window of the Event Study and Data

As shown in Table 1, the total number of Korea Best Brands is 130. Except for missing data and not listed companies, this study obtains 117 stock prices from KisValue. Also, this study gains KOSPI and KOSDAQ index from KRX. Among these data, the samples of fallen group and ascended group are respectively 14 and 63.

As shown in Table 1, announcement dates of Korea Best Brands are the event day. Also, the estimation window is from -180 to -20 days and the event window lengths are from -5 to +5 days like Figure 1.

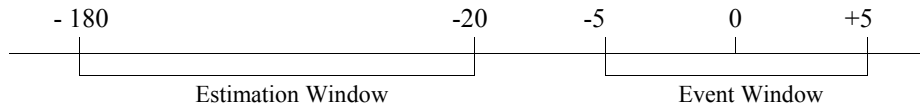


Fig. 1. Window of Event Study

3.3 AAR, CAR and t-Value under Market Model

This study uses a regular market model regression to estimate the link between stock and index returns (KOSPI and KOSDAQ). Using the regression method, this study assesses α_i and β_i throughout the estimation window as following equation (1). Given these parameter estimates, abnormal stock returns are extracted during the event window.

$$R_{i,t} = \alpha_i + \beta_i R_m + \epsilon_{i,t} \text{ s.t. } E[\epsilon_{i,t}] = 0, Var[\epsilon_{i,t}] = \sigma_{i,t}^2 \quad (1)$$

To analyze the effects of the Korea Best Brands announcement, this study calculates the mean average abnormal returns (AAR), cumulative abnormal returns (CAR), and t-statistics as following:

Table 1. Korea Best Brands List

Date	Total (Listed)	Company Name(ranking)
2013. Feb. 21	30 (26)	Samsung Electronics(1), Hyundai Motor(2), Kia Motors(3), SK Telecom(4), POSCO(5), KB Financial(6), Samsung Life Insurance(7), Naver(8), Shinhan Card (9*), LG Electronics(10), Shinhan Financial(11), KT(12), Hana Financial(13), Hyundai Heavy Industries(14), LG Chem(15), Samsung Fire & Marine(16), Hyundai Mobis(17), Lotte Shopping(18), Hyundai Card(19*), AmorePacific(20), Samsung Card(21), Samsung C&T(22), Kyobo Life Insurance(23*), Hyundai Eng. & Constr.(24), SK Innovation(25), Hankook Tire(26*), Hyundai Department Store(30), LG Household & Health Care(28), Hitejinro(29), CJ CheilJedang(30).
2014. Feb. 20	50 (45)	Samsung Electronics(1), Hyundai Motor(2), Kia Motors(3), SK Telecom(4), POSCO(5), Samsung Life Insurance(6), LG Electronics(7), Naver(8), KB Financial(9), Shinhan Card(10*), KT(11), Shinhan Financial(12), Hana Financial(13), Hyundai Heavy Industries(14), Samsung Fire & Marine(15), Hyundai Mobis(16), LG Chem(17), Lotte Shopping(18), AmorePacific(19), Hyundai Card(20*), Samsung Card(21), Kyobo Life Insurance(22*), Samsung C&T(23), Hyundai Eng. & Constr.(24), Hankook Tire(25), SK Innovation(26), KT&G(27), LG Household & Health Care(28), E-Mart(29), Hyundai Department Store(30), CJ CheilJedang(31), Hitejinro(32), Samsung Securities(33), CJ O Shopping(34*), Doosan Infracore(35), Hotel Shilla(36), Hyundai Marine & Fire Insurance(37), Hyundai Capital(38*), Lotte Himart(39), S-Oil(40), LG Uplus(41), Hanwha Life Insurance(42), Mirae Asset Securities(43), Dongbu Insurance(44), CJ E&M(45**), Samsung Heavy Ind.(46), GS Home Shopping(47**), Hyundai Home Shopping(48), BC Card(49*), Nong Shim(50)
2015. Mar. 10.	50 (46)	Samsung Electronics(1), Hyundai Motor(2), Kia Motors(3), SK Telecom(4), Samsung Life Insurance(5), Naver(6), LG Electronics(7), POSCO(8), Shinhan Card(9*), KB Financial(10), Shinhan Financial(11), KT(12), Hana Financial(13), Samsung Fire & Marine(14), LG Chem(15), AmorePacific(16), Hyundai Mobis(17), Lotte Shopping(18), Samsung Card(19), Hyundai Card(20*), Kyobo Life Insurance(21*), Samsung C&T(22), Hyundai Eng. & Constr.(23), Hankook Tire(24), KT&G(25), LG Household & Health Care(26), CJ CheilJedang(27), E-Mart(28), Hyundai Department Store(29), SK Innovation(30), Doosan Infracore(31), Samsung Securities(32), CJ O Shopping(33*), Hitejinro(34), Hotel Shilla(35), LG Uplus(36), Daum Kakao (37**), Coway(38), S-Oil(39), Lotte Himart(40), Hanwha Life Insurance(41), Shinsegae(42), CJ E&M(43**), Hansam(44), Lotte chilsung(45), Mirae Asset Securities(46), GS Home Shopping(47**), Hyundai Home Shopping(48), Hyundai Capital(49*), Nong Shim(50)
Total	130 (117)	* is not listed on KRX or missing data and ** is listed on KOSDAQ.

$$AAR_{i,t} = R_{i,t} - \alpha_i - \beta_i R_m \quad (2)$$

$$AAR_t = \frac{1}{n} \sum_{i=1}^n AAR_{i,t} \quad t_{AAR_t} = \sqrt{n} \sum_{i=1}^n AAR_{i,t} / \hat{\sigma}(AR_{i,t}) \quad (3)$$

$$CAR_{t_1,t_2} = \sum_{t_1}^{t_2} AAR_t \quad t_{CAR_{t_1,t_2}} = \frac{\sum_{i=t_1}^{t_2} AAR_{i,t}}{\sqrt{t_2 - t_1 + 1} \hat{\sigma}(AR_{i,t})} \quad (4)$$

4 Results

Table 2 and Figure 2 suggest AAR, CAR, and t-value of fallen group in brand value. AARs and CARs of fallen group are not significant before the event day. Because AARs of fallen group are steadily negative after the event day, CARs of D+4 day and D+5 day are -3.49 and -3.94 percent. t-values are respectively -1.81 and -1.95. This result proposes that fallen group in Korea Best Brands has no effects on companies listing in rankings before event day but negative effects after event day.

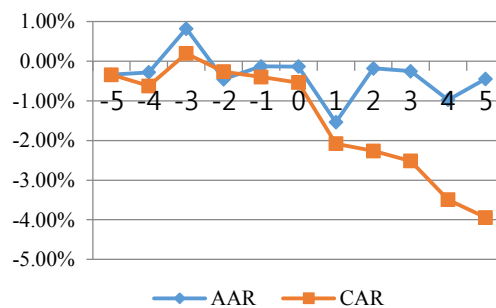


Fig. 2. AAR and CAR of Fallen Group in Brand Value

Table 2. AAR, CAR, and t-value of Fallen Group in Brand Value

Day	AAR	t-value	CAR	t-value
-5	-0.34%	-0.56	-0.34%	-0.56
-4	-0.28%	-0.46	-0.63%	-0.73
-3	0.82%	1.34	0.19%	0.18
-2	-0.46%	-0.75	-0.27%	-0.22
-1	-0.14%	-0.22	-0.40%	-0.29
0	-0.14%	-0.23	-0.54%	-0.36
1	-1.54%	-2.53**	-2.08%	-1.29
2	-0.18%	-0.30	-2.26%	-1.31
3	-0.25%	-0.42	-2.52%	-1.38
4	-0.98%	-1.60	-3.49%	-1.81*
5	-0.45%	-0.74	-3.94%	-1.95*

* p<0.1; ** p<0.01

Table 3 and Figure 3 suggest AAR, CAR, and t-value of ascended group in brand value. AARs and CARs of ascended group are not significant before the event day.

After D-day, AAR and t-value of D+1 day is -0.93 percent and -3.13. This result proposes that ascended group in Korea Best Brands has no effects on companies listing in rankings as Table 3 and Figure 3 before the event day.

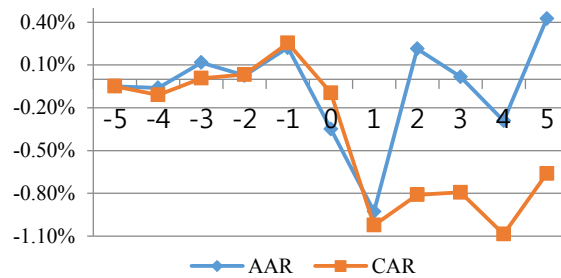


Fig. 3. AAR and CAR of Ascended Group's in Brand Value

Table 3. AAR, CAR, and t-value of Ascended Group's in Brand Value

Day	AAR	t-value	CAR	t-value
-5	-0.05%	-0.17	-0.05%	-0.17
-4	-0.06%	-0.21	-0.11%	-0.26
-3	0.12%	0.39	0.01%	0.01
-2	0.03%	0.09	0.03%	0.05
-1	0.22%	0.75	0.25%	0.38
0	-0.35%	-1.17	-0.09%	-0.13
1	-0.93%	-3.13***	-1.02%	-1.30
2	0.21%	0.72	-0.81%	-0.97
3	0.02%	0.06	-0.79%	-0.89
4	-0.29%	-0.98	-1.09%	-1.16
5	0.43%	1.43	-0.66%	-0.67

*** p<0.005

5 Conclusions

Brand valuation is too difficult to evaluate exactly for investors. So, investors need to watch the brand valuation reports of specialized companies. If the brand value of listed companies is satisfied, investors are willing to make a decision for investment. Given these points, it is meaningful to evaluate the announcements of brand valuation reports effects on such companies' stock prices. This study is the first investigation whether brand valuation reports impacts on the stock prices of listed companies.

Our results suggest that brand valuation reports have no effects on fallen group and ascended group before the event day but have negative effect on fallen group after the event day. Investors consider fallen news of brand value as significant news.

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