



Does Brand Value Always Increase Firm Value? An Empirical Study from China

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Abstract. The previous studies confirmed that brand value can increase firm value. However, most of the literature on this topic studied the firms of developed markets, which have different institutional and cultural environment from developing markets. This paper studied the effects of brand value by using China's listed companies as the sample. We found that for China's firms, firm size is an important moderating variable constraining brand value's effect. That is, brand value increases firm value only for large firms, and there are no significant effects for small firms. We used five indicators to measure firm size and obtained consistent results. The results have important implications for firms managing brands in the developing countries.

Keywords: Brand Value; Firm Value ; Firm Size ; Developing Markets

1 Introduction

It is well known that brand name makes up corporate assets and has an economic value^[1] (Aaker 1996), and most previous studies confirmed that brand value contributes to shareholder value/firm value^[4, 9, 12] (Bharadwaj et al. 2011; Kerin and Sethuraman 1998; Srivastava et al. 1998). However, some previous studies showed that brand value may not always increase firm value^[6] (Doyle 2001). The firm value created by brands depends on how firms leverage their resources and capabilities to maximize brand's value creation^[11] (Raggio and Leone 2007, 2009). In effect, successful marketing strategies are usually realized through competitive advantages created through firm's leveraging firm's tangible and intangible resources^[3, 8] (Barney, 1991; Hunt, & Morgan, 1995). Therefore, firms with different resources and leveraging strategies obtain different performances.

2 Role of Firm's Resources in Brand's Value Creation

This paper focuses on the firm's resource from four aspects to identify its role in the relationship between brand value and firm value. We first try to make clear how brand value contributes to firm value for firms with different registered capital. According to China's company law, firms should be set up by meeting the minimum requirement of

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registered capital. For the limited company, the minimum registered capital is RMB 10 million (later the laws modified to RMB 5 million). If the company plans to be listed in China's stock market, the minimum registered capital should be RMB 30 million based on China's Security Law. Therefore, registered capital reflects a firm's resource enrichment to some extent. Based on the arguments, we can hypothesize that:

H1: brand value does not have significant effects on firm value when firm's registered capital is low, while the effects are positively significant when registered capital is high for firms in China's market.

As for the China's market, state regulatory regimes still exert considerable influence on resource allocations, firms need to exploit political capitals to obtain scarce resources, such as access to capital, land, and human resources^[10] (Li 2005). To be specific, the preferential treatments of state-owned enterprises in China include such benefits as licensing, winning government procurement contracts in the China market, particularly at the local government level, etc.^[7] (Fan and Hope 2012). Therefore, compared to private firms, brands of SOEs can create firm value more easily, and we can hypothesize that:

H2: brand value does not have significant effects on firm value for non-state owned firms, while the effects are positively significant for SOEs in China's market.

We argue that marketing expenditure suggests a firm's resource enrichment to some extent. Empirical studies show that marketing expenditure is the key factor for firms to build marketing capability^[2] (Angulo-Ruiz, Donthu, Prior and Rialp 2018). Therefore, we use marketing expense to identify whether or not a firm has enough resources to integrate its intangible and tangible resources to obtain competitive advantages. For example, many firms spend large money to build a sales force to improve firm's financial performance^[5] (Capron and Hulland 1999).

Based on the abovementioned, we hypothesize that:

H3: brand value does not have significant effects on firm value for firms with low marketing expenses, while the effects are positively significant for firms with high marketing expenses in China's market.

H3a: brand value does not have significant effects on firm value for firms with low selling expenses, while the effects are positively significant for firms with high selling expenses in China's market.

H3b: brand value does not have significant effects on firm value for firms with low management expenses, while the effects are positively significant for firms with high management expenses in China's market.

H3c: brand value does not have significant effects on firm value for firms with low financial expenses, while the effects are positively significant for firms with high financial expenses in China's market.

3 Research Methodology

3.1 Data Collection

Most of the data are collected from two sources: World Brand Lab and CSMAR. As for brand value, we collected the data from the 500 most valuable brands issued by

World Brand Lab. Other variables are collected from CSMAR. There are totally 97 corporate brands in our data, which covers 4 years from 2004 to 2007 with 388 observations. The descriptive analysis is shown on table 1.

Table 1. Descriptive Analysis and Correlation

	Mean	SE	1	2	3	4	5	6
1 tobin q	1.49	0.956	1.00					
2 brand value	-0.25	0.612	0.09	1.00				
3 industry growth	-0.29	0.316	-0.01	0.158*	1.00			
4 leverage ratio	-0.09	1.004	0.07	-0.03	0.07	1.00		
5 total asset	-0.11	0.533	-0.08	0.385*	0.527**	-0.04	1.00	
6 stock concentration	0.24	0.152	-0.09	0.06	-0.04	-0.08	0.264**	1.00
7 PE ratio	62.63	107.2	0.08	-0.12*	-0.05	-0.10	-0.06	-0.03
8 register	-	-	-0.10	0.119*	0.08	0.1082*	0.1741*	0.3414*
9 state	-	-	-0.10	0.00	0.04	0.02	0.113**	0.2921*
10 manage	-	-	0.09	-0.06	0.218**	0.1792*	0.115**	0.186**
11 financial	-	-	0.14**	-0.2**	0.02	0.206**	-0.03	0.08
12 sales	-	-	0.15**	0.02	-0.17**	0.147**	-0.08	-0.04

Continued Table 1. Descriptive Analysis and Correlation

	7	8	9	10	11
7 PE ratio	1.00				
8 register	0.03	1.00			
9 state	0.09	0.34**	1.00		
10 manage	0.04	0.1187*	-0.01	1.00	
11 financial	-0.01	0.08	-0.03	0.00	1.00
12 sales	-0.04	-0.01	-0.1315*	0.3085*	-0.176**

ns: *: significant at 0.05; **: significant at 0.01

3.2 Data Analysis

3.2.1 The Effects of Brand Equity on Firm Value.

We first test the effects of brand value on firm value. The results show that brand equity can positively affect firm value (Table 2). The coefficient of brand value is 0.30884 and P value is 0.004, which is less than 0.05.

Table 2. The Effect of Brand Value on Firm Value

Tobin q	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
brand value	0.30884	0.106084	2.91	0.004	0.10092	0.51676
industry growth	1.024055	0.372042	2.75	0.006	0.294866	1.753244
leverage ratio	0.065846	0.060162	1.09	0.274	-0.05207	0.183762
total asset	-0.35062	0.139059	-2.52	0.012	-0.62317	-0.07806
stock concentration	-0.77611	0.404478	-1.92	0.055	-1.56887	0.016654
PE ratio	0.001086	0.000508	2.14	0.033	9.05E-05	0.002081
cons	1.993496	0.166603	11.97	0.000	1.666961	2.320031

3.2.2 The Moderating Effect of Registered Capital.

We divided the data into two groups based on the median of registered capital. The group with higher registered capital is defined 1 and lower group 0. We then use the product of brand value and registered capital as the interaction. The results show that registered capital can positively moderate the relationship between brand value and firm value (Table 3). The coefficient of the interaction is 0.4499, and P value is 0.04.

Table 3. The Moderating Effects of Registered Capital

Tobin q	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
brand value	0.144748	0.131886	1.1	0.272	-0.11374	0.4032387
registered capital	0.105723	0.14605	0.72	0.469	-0.18053	0.3919761
brand*capital	0.44994	0.21884	2.06	0.04	0.021018	0.8788607
industry growth	1.078239	0.371676	2.9	0.004	0.349768	1.806711
leverage ratio	0.046874	0.060517	0.77	0.439	-0.07174	0.1654849
total asset	-0.45737	0.148161	-3.09	0.002	-0.74776	-0.1669833
stock concentration	-0.87561	0.429023	-2.04	0.041	-1.71648	-0.0347391
PE ratio	0.001103	0.000506	2.18	0.029	0.000113	0.0020939
cons	1.968058	0.168357	11.69	0.00	1.638086	2.298031

3.2.3 The Moderating Effects of State Ownership.

We divided the data into two groups based on state ownership, with 1 means state ownership, and 0 others. The results also show that state ownership has positively significant effects on the relationship between brand value and firm value (Table 4). The coefficient of the interaction is 0.5315 and P value is 0.014, which is less than 0.05.

Table 4. The Moderating Effects of State Ownership

Tobin q	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
brand value	0.081843	0.138975	0.59	0.556	-0.19054	0.3542285
State Ownership	0.022739	0.148628	0.15	0.878	-0.26857	0.3140443
brand*state ownership	0.5315	0.2157	2.46	0.014	0.108738	0.9542598
industry growth	1.147484	0.372071	3.08	0.002	0.418239	1.876729
leverage ratio	0.043338	0.060727	0.71	0.475	-0.07569	0.1623611

total asset	-0.48418	0.149441	-3.24	0.001	-0.77708	-0.1912784
stock concentration	-0.78611	0.418736	-1.88	0.06	-1.60682	0.0345972
PE ratio	0.001181	0.000507	2.33	0.02	0.000188	0.0021743
_cons	2.033108	0.178671	11.38	0.00	1.68292	2.383296

3.2.4 The Moderating Effects of Management Expense.

We use the ratio of management expense to total cost as the measurement of management expense. Based on the results, management expense has positively significant moderating effects (Table 5). The coefficient is 0.4815, and P value is 0.021, less than 0.05.

Table 5. The Moderating Effects of Management Expense

Tobin q	Coef.	Std. Err.	z	P>z	[95% Conf. Interval]
brand value	-0.3435	0.297268	-1.16	0.248	-0.92613 0.2391387
Management Expense	0.361714	0.131267	2.76	0.006	0.104435 0.618992
brand*Management Expense	0.48151	0.20885	2.31	0.021	0.072172 0.8908394
industry growth	1.123468	0.370511	3.03	0.002	0.397279 1.849657
leverage ratio	0.058791	0.059015	1	0.319	-0.05688 0.1744587
total asset	-0.27263	0.135329	-2.01	0.044	-0.53787 -0.0073945
stock concentration	-1.03568	0.406197	-2.55	0.011	-1.83181 -0.2395492
PE ratio	0.001042	0.000495	2.11	0.035	7.26E-05 0.0020114
_cons	1.583899	0.215248	7.36	0.00	1.16202 2.005778

3.2.5 The Moderating Effects of Sales Expense.

Similar to management expense, we use the ratio of sales expense to total cost as the measurement of sales expense. The results show that sales expense has paripherally significant moderating effects. The coefficient of the interaction is 0.3294, and P value is 0.068 (Table 6)

Table 6. The Moderating Effects of Sales Expense

Tobin q	Coef.	Std. Err.	z	P>z	[95% Conf. Interval]
brand value	-0.22639	0.308854	-0.73	0.464	-0.83173 0.3789563
Sales Expense	0.350768	0.126902	2.76	0.006	0.102045 0.5994913
brand*Sales Expense	0.32941	0.18078	1.82	0.068	-0.02492 0.6837419
industry growth	1.102621	0.373687	2.95	0.003	0.370209 1.835033
leverage ratio	0.080988	0.061474	1.32	0.188	-0.0395 0.201474
total asset	-0.26621	0.144782	-1.84	0.066	-0.54998 0.0175567
stock concentration	-0.85041	0.405179	-2.1	0.036	-1.64455 -0.0562771
PE ratio	0.001112	0.000507	2.19	0.028	0.000119 0.0021051
_cons	1.499638	0.24397	6.15	0.00	1.021465 1.977811

3.2.6 The Moderating Effects of Financial Expense.

Finally, we also test the moderating effects of financial expense, and use the ratio of financial expense to total cost as the measurement of financial expense. The results show no significantly moderating effects (table 7). The coefficient of the interaction is -0.1105, and P value is 0.648.

Table 7. The Moderating Effects of Financial Expense

Tobin q	Coef.	Std. Err.	z	P>z	[95% Conf. Interval]
brand value	0.398425	0.303444	1.31	0.189	-0.19631 0.9931646
Financial Expense	-0.2238	0.144272	-1.55	0.121	-0.50657 0.0589673
brand*Financial Expense	-0.1105	0.24177	-0.46	0.648	-0.58437 0.3633485
industry growth	0.955853	0.375158	2.55	0.011	0.220556 1.69115
leverage ratio	0.089266	0.060528	1.47	0.14	-0.02937 0.2078986
total asset	-0.33352	0.137133	-2.43	0.015	-0.60229 -0.064743
stock concentration	-0.67874	0.399301	-1.7	0.089	-1.46136 0.1038745
PE ratio	0.001031	0.000502	2.05	0.04	4.71E-05 0.0020145
_cons	2.265423	0.246516	9.19	0.00	1.78226 2.748586

3.2.7 The Regression Results Based on Groups with High or Low Resources.

We regressed firm value on brand value based on all the groups with high or low resources. The results of P values are shown on table 8. The results show that for registered capital, state ownership, management expense, and sales expense, the effects of resources are significant. However, management expense is significant for both high and low groups, and the other three just the high group is significant. While for financial expense, the low group is significant and the high group is not.

Table 8. The Comparison of P values between High and Low Groups

Moderators	Gourp	Coefficient	P value
Registered capital	High	0.6891535	0.000
	Low	0.0906845	0.472
State Ownership	State	0.6188204	0.000
	Nonstate	0.3725786	0.104
management Expense	High	0.623269	0.002
	Low	0.2127815	0.038
Sales Expense	High	0.433792	0.004
	Low	0.0140172	0.895
Financial Expense	High	0.1804174	0.410
	Low	0.3795903	0.026

4 Limitations and Future Study

Whereas it is necessary to study firm resource's effects on the relationship between brand value and firm value, the paper still has some limitations which need for the future study. First, we just use the data from China which cannot provide verifiable evidence to identify the institutional effects causing the differential effects for firms with different resources. The future study needs to sample the firms from different countries to confirm the institutional effects.

Second, the method of defining firms in terms of resources is a difficult work. The prior literature does not provide a good standard to identify which firms have more resources and capabilities. We use five indices to classify the firms into two types, which may neglect some factors that may have effects on firm resources. For example, the newly born firms are set up by people with strong political relationship may also have more resources. However, it is hard to identify this relationship since most dataset does not provide the relevant indicators. The future study needs to adopt more precious indicators to identify the firm's resources.

Project

1.Planning Project of Philosophy and Social Science of Guangdong “Study on Marketing Discourse of China’s Firms’ Internationalization (Project ID: GD19CGL04)”.

2.Humanities and social sciences research project of the Ministry of Education “The Impact Mechanism of Firm’s International Marketing Discourse on Consumer Behavior (Project ID: 20YJA630027)”.

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