A Study on Competitive Trend of Global Top 100 Brands

Yu-Chin Hsiao, Mei-Wei Yang, Yi-Ling Lo, Chia-Hui Feng, Wei-Ping Hsu, and Rain Chen*

Abstract—Brand competition is the issue that enterprises must face in global development. Consumers would gradually develop trust and loyalty to enterprises through the brands. Besides, enterprises could accumulate huge brand value through brand management. This study has analyzed the brand value (BV) of the global top 100 brands from 2012 to 2021 (10 years totally). Furthermore, for enterprises that have been ranked among the global top 100 brands for ten consecutive years, their brand familiarity (BF), brand identification (BI), brand aesthetics (BA), brand visual design (BVD), and brand recommendation (BR) have further been analyzed. The results showed that the average annual survival rate of the top 100 brands would be 93% and the brand value of the top 5 brands accounted for 26% of the overall values. This showed that the brand competition has been fierce and the differences between brand values would be great. Besides, BR, BI, BA, and BVD showed medium to high degree of correlation. This represents that brand visual design and brand recommendation of consumers would be highly correlated.

Index Terms—Brand aesthetics, brand familiarity, brand identification, brand recommendation, brand value, and brand visual design.

I. INTRODUCTION

The American Marketing Association (AMA) defines a brand as a "name, term, sign, symbol or design, or a combination of them intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of other sellers [1]. Enterprises would apply brand for market positioning, and brand management for brand development [2]. Brand development has different purposefulness. When customers have insufficient product experience, they would rely on brand as the basis for purchasing goods [3].

Kim and other scholars have studied and verified the famous 80-20 rule, that is, 80% of sales profit of an enterprise would be contributed by 20% of loyal customers [4]. Brand marketing master Aaker has proposed that brand equity would be the extension of accounting balance sheet (equity = assets - liabilities), which means brand equity would combine assets and labilities [5]. The study of Hanssens, Rust and Srivastava have proved that brand would increase cash flow

Manuscript received January 5, 2022; revised April 2, 2022. This work was partially supported by the Ministry of Science and Technology (MOST), Taiwan, under Grant No. MOST 109-2221-E-218 -018 -MY3.

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and brand value of the enterprises. When the brand has been extended, it could also increase the profit and reduce the risk [6].

The thinker, Stephen King, who once served in the world's largest advertising company WPP Group mentioned: product would easily be copied or plagiarized by others but brand would be unique; product would create a public sensation easily but would be eliminated quickly. However, brand could go down for long time [7]. Study by Homburg pointed out that: brand promotion activity could increase brand awareness and brand value [8]. Cernikovaite believed that brand awareness would be the priority of buying products [9].

Kantar Brandz has been founded by Millward Brown in Warwick, England in 1973, and has been acquired by the world's largest advertising enterprise, WPP Group in 1990. Millward Brown has founded the Brandz database in 1998. It has included over 160,000 brands worldwide and over 3.7 million interviews with consumers [10]. Kantar Brandz believed that the core brand value would come from attracting relevant customers and potential consumers. There would be 3 necessary conditions to attract consumers successfully: 1) meaningful, 2) different, and 3) salient [11].

Park and other scholars have concluded that trademarks could be divided into two types: the first one would show the brand name alone, such as IBM. The second one would combine with unique visual symbol design. For example, Mercedes-Benz has combined with the three-pointed star logo, in order to convey the business philosophy through the symbols and words [12].

Schechter has classified trademarks according to the form of visual expression (such as designs, words, and symbols). Besides, the perception, identification and association of consumers on trademarks have been inquired. The study found that graphic signs would be the most effective and the abstract signs would be the least effective [13]. Jiang and other scholars have found that: round trademarks would give a soft feeling to consumers while angular trademarks would give a rigid feeling to consumers. Thicker lines or corners would increase the masculinity of the brands. On the other hand, the slender and rounded trademarks would increase the flexibility of the brands [14]. Wang and other scholars also proposed that: asymmetrical trademark design would attract consumers more [15].

Reichheld believed that "customer loyalty" would be the most important factor affecting the increment of brand value. He has further defined brand recommendation as "will you recommend this enterprise to your friends and family?" The recommendation value was counted from point 0 to 10. Point $0 \sim 6$ would be critic; point $7 \sim 8$ would be neutral; point $9 \sim 10$ would be recommender [16]. The brand spirit of an enterprise would continue affecting consumers for long time. This study has analyzed the brand value (BV) of the global top 100 brands from 2012 to 2021 (10 years totally).

Furthermore, for enterprises that have been ranked among the global top 100 brands for ten consecutive years, their brand familiarity (BF), brand identification (BI), brand aesthetics (BA), brand visual design (BVD), and brand recommendation (BR) have further been analyzed.

II. METHOD

A. Subjects

This study applied online questionnaire survey. There were 92 visual communication designers conducted the trademark design questionnaires. Test questions were included in the questionnaires. After excluding two invalid questionnaires, there were totally 90 valid questionnaires returned (accounting for 97.8%). Among the subjects, there were 25 males (27.8%) and 65 females (72.2%) The questionnaire survey has been implemented in November 2021.

B. Samples

The sources of the samples applied in this study were global top 100 brands report announced by BrandZ. The research samples included two parts: the first part involved the global top 100 brands from 2012 to 2021 (10 years totally). There were totally 1000 brand samples. The second part involved the brands ranked in the global top 100 brands for 10 successive years from 2012 to 2021. After deducting the unsuitable samples, there were 49 trademark design samples for survey (as shown in Table I). In the BrandZ brand report in 2021, there has been a total of 13 industry categories. This study has combined the industries with similar attributes moderately to become 5 industry categories to benefit the analysis and discussion of data. "*" indicates the name of industry categories after combination.

TABLE I: BRAND RESEARCH SAMPLES

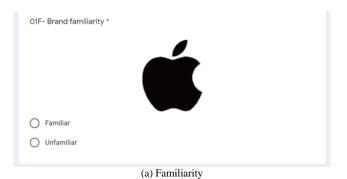
			Brand
No.	Brand	Industry	Value
			(US\$ Mil.)
1	APPLE	Technology	611997
2	GOOGLE	Technology	457998
3	MICROSOFT	Technology	410271
4	AMAZON	Logistics & Retail	683852
5	VISA	Finance	191285
6	MCDONALD'S	Life-related *	154921
7	AT&T	Telecoms	100654
8	IBM	Technology	91337
9	VERIZON	Telecoms	101943
10	COCACOLA	Life-related *	87604
11	FACEBOOK	Technology	226744
12	TENCENT	Technology	240931
13	MARLBORO	Life-related *	57007
14	MASTERCARD	Finance	112876
15	UPS	Logistics & Retail	73017
16	SAP	Technology	69242
17	WELLS FARGO	Finance	27995
18	CHINA MOBILE	Telecoms	25821
19	DISNEY	Life-related *	55217
20	ICBC	Finance	37765
21	LV	Life-related *	75730
22	WALMART	Logistics & Retail	59522
23	T (DEUTSCHE)	Telecoms	43084
24	STARBUCKS	Life-related *	60267
25	NIKE	Life-related *	83709

26	THE HOME DEPOT	Logistics & Retail	70522
27	VODAFONE	Telecoms	29735
28	AMERICANEXPRESS	Finance	28578
29	TOYOTA	Life-related *	26974
30	ACCENTURE	Technology	64734
31	SAMSUNG	Technology	46765
32	HERMES	Life-related *	46371
33	BMW	Life-related *	24821
34	ORACLE	Technology	60837
35	LOREAL	Life-related *	38309
36	BUDWEISER	Life-related *	25547
37	Baidu	Technology	23358
38	BENZ	Life-related *	25835
39	INTEL	Technology	71937
40	China Construction Bank	Finance	19776
41	ZARA	Life-related *	21382
42	PAMPERS	Life-related *	19619
43	CISCO	Technology	46822
44	FEDEX	Logistics & Retail	23592
45	COLGATE	Life-related *	18894
46	COMMONWEALTH BANK	Finance	19468
47	IKEA	Logistics & Retail	21021
48	SIEMENS	Technology	23640
49	DHL	Logistics & Retail	20138

C. Questionnaire

For the questionnaire design, (1) Brand Familiarity (code: BF), (2) Brand Identification (code: BI), (3) Brand Aesthetics (code: BA), and (4) Brand Recommendation (code: BR) have been applied as the questions for discussion of the brands.

In the explanatory text of the questionnaire, the definitions of Identification, Aesthetics, and Recommendation were specified as below: (1) Identification: this brand is easy to distinguish; (2) Aesthetics: this brand has aesthetics or texture; (3) Recommendation: would you like to recommend this brand to others? Except BF applied Yes / No questions, BI, BA and BR applied 10 point scale for measurement as shown in Fig. 1 (a) to (d).

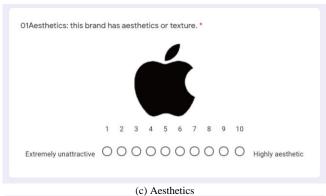


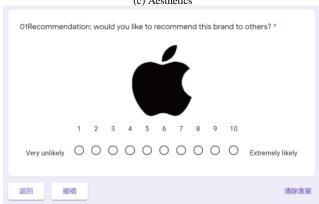
O1Identification: this brand is easy to distinguish.

1 2 3 4 5 6 7 8 9 10

Extremely difficult to identify

(b) Identification





(d) Recommendation Fig. 1. Questionnaire design.

III. BRAND TRENDS

A. Brand Survival Rate

This study has implemented the content analysis on the global top 100 brands announced by BrandZ. Table II showed that: the brands that could stand in the global top 100 brands (hereinafter referred to survival rate) from 2012 to 2021. The annual survival rate represents the brand survival rate after comparing the current year with the previous year. The sustained survival rate represents the brand survival rate after comparing the current year with 2012. The ratio of the top five brands has been calculated according to the amount of these brand values.

TABLE II: SURVIVAL RATE OF THE GLOBAL TOP 100 BRANDS

	Tribee in service in the Geoble for 100 Breaths							
Items	Number of brands	Annual survival rate	Sustained survival rate	Brand value ratio of the top five brands				
2012	100	-	100%	24%				
2013	100	92%	92%	23%				
2014	100	95%	85%	21%				
2015	100	95%	81%	22%				
2016	100	98%	79%	24%				
2017	100	94%	74%	25%				
2018	100	96%	71%	27%				
2019	100	93%	66%	29%				
2020	100	95%	63%	32%				
2021	100	86%	54%	34%				
AVG	100	93%	74%	26%				

B. Alteration of Brand Industry

This study has implemented content analysis of the global top 100 brands announced by BrandZ. Table III shows the annual change of the five major industry category from 2012 to 2021.

TADIEIII	AT TER ATION OF THE	CLOBAL TOD	100 Brand Industry	
TABLE III:	ALTERATION OF THE	GLOBAL TOP	TOO BRAND INDUSTRY	

Industr y categor y	Financ e	Life-re lated	Logisti cs & Retail	Techno logy	Teleco ms	Total
2012	23%	32%	14%	16%	15%	100%
2013	25%	35%	13%	15%	12%	100%
2014	27%	32%	12%	18%	11%	100%
2015	26%	32%	13%	18%	11%	100%
2016	23%	33%	15%	18%	11%	100%
2017	23%	31%	13%	20%	13%	100%
2018	24%	29%	16%	20%	11%	100%
2019	22%	28%	15%	25%	10%	100%
2020	23%	31%	14%	22%	10%	100%
2021	19%	26%	14%	32%	9%	100%
AVG	24%	31%	14%	20%	11%	100%

C. Statistical Data of Brand Samples

There were only 54 enterprises staying in the global top 100 brand rankings for 10 successive years. After deducting the unsuitable samples, there were a total of 49 trademark design samples. Table IV shows the statistical data of the 49 brand samples in 2021. They were: (1) Brand Familiarity, BF, (2) Brand Identification, BI, (3) Brand Aesthetics, BA, (4) Brand Visual Design, BVD (BVD= (BI+BA)/2), and (5) Brand Recommendation, BR.

TABLE IV: STATISTICAL DATA OF BRAND SAMPLES

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No.	BF (%)	BI	BA	BVD	BR
	` ´	(0~10)	(0~10)	(0~10)	(0~10)
1	97.78	9.74	8.18	8.96	8.55
2	100	9.62	6.98	8.3	8.94
3	97.78	8.82	6.5	7.66	7.88
4	60	9.09	7.07	8.08	7.46
5	85.56	8.88	7.29	8.09	8.12
6	100	9.71	7.46	8.59	8.79
7	6.67	7.67	6.5	7.09	7.17
8	43.33	8.1	6.28	7.19	6.51
9	1.11	7	6	6.5	8
10	100	9.39	8.21	8.8	8.29
11	100	8.47	6.07	7.27	6.72
12	36.67	7.24	5.06	6.15	4.91
13	22.22	8.75	7.85	8.3	6.95
14	66.67	8.75	7.2	7.98	7.23
15	8.89	9	7.25	8.13	7.75
16	3.33	9	7	8	8.33
17	2.22	7	7	7	6.5
18	13.33	8	4.92	6.46	4.75
19	100	9.5	8.64	9.07	8.97
20	7.78	7.29	5.86	6.58	5.29
21	73.33	9.2	8.17	8.69	8.11
22	8.89	8.75	7.63	8.19	8.5
23	3.33	8.33	9	8.67	7.67
24	100	9.73	8.6	9.17	8.49
25	97.78	9.51	8.3	8.91	8.73
26	2.22	9	7	8	8.5
27	3.33	6.67	8.67	7.67	7.33
28	3.33	10	6.33	8.17	8
29	94.44	9.11	7.05	8.08	7.53
30	2.22	7.5	6.5	7	8.5
31	96.67	8.89	7.3	8.1	7.51
32	62.22	8.86	8.59	8.73	8.14
33	87.78	9.28	7.62	8.45	8.13
34	4.44	8.75	7.75	8.25	7.75
35	58.89	8.26	7.25	7.76	8.13
36	14.44	8.62	7.38	8	8
37	77.78	8.59	4.76	6.68	4.94
38	78.89	9.25	8.35	8.8	8.1
39	48.89	8.11	7.09	7.6	7.73
40	5.56	8.4	5.6	7	6.2
41	74.44	8.79	8.39	8.59	8.09
42	56.67	8.57	7.65	8.11	7.88
43	3.33	9.67	10	9.84	9.33
44	62.22	9.34	7.82	8.58	7.73

45	43.33	8.41	7.15	7.78	7.87
46	2.22	8.5	7.5	8	8
47	97.78	9.64	8.25	8.95	9.14
48	2.22	10	9	9.5	9.5
49	37.78	9.21	8.06	8.64	7.97

D. Correlation Analysis

This study has implemented correlation analysis for Brand Value (BV), Brand Familiarity (BF), Brand Identification (BI), Brand Aesthetics (BA), Brand Visual Design (BVD) (BVD=(BI+BA)/2), and Brand Recommendation (BR). The results are shown in Table V.

TABLE V: CORRELATION ANALYSIS OF RESEARCH SAMPLES

Items	Correlation	BV	BF	BI	BA	BVD	BR
BV	Pear.	1	.338*	.154	117	003	.055
	Sig.		.018	.289	.423	.986	.706
BF	Pear.	.338*	1	.484**	.146	.335*	.204
	Sig.	.018		.000	.316	.018	.159
BI	Pear.	.154	.484**	1	.482**	.812**	.612**
	Sig.	.289	.000		.000	.000	.000
BA	Pear.	117	.146	.482**	1	.903**	.749**
	Sig.	.423	.316	.000		.000	.000
BVD	Pear.	003	.335*	.812**	.903**	1	.799**
	Sig.	.986	.018	.000	.000		.000
BR	Pear.	.055	.204	.612**	.749**	.799**	1
	Sig.	.706	.159	.000	.000	.000	

- *. Correlation is significant at the 0.05 level (2-tailed).
- **. Correlation is significant at the 0.01 level (2-tailed).

IV. DISCUSSION AND CONCLUSION

This study has analyzed the brand value (BV) of the global top 100 brands from 2012 to 2021 (10 years totally). Furthermore, for enterprises that have been ranked among the global top 100 brands for ten consecutive years, their brand familiarity (BF), brand identification (BI), brand aesthetics (BA), brand visual design (BVD), and brand recommendation (BR) have further been analyzed.

From 2012 to 2021, the average annual survival rate of the global top 100 brand has been 93%, with an average decline of 7%. If sustained survival rate was applied, the average annual decline was around 5%. With accumulation for 10 years, almost half of the brands have been removed from the top 100 brands. This showed that the global brand competition has been fierce. The brand values of the top five brands accounted for 26% of the overall brand values, for which it meant the brand value difference between brands were great. In terms of the brand advantages, United States still had the mainstream status in brand competition.

In terms of the industry alteration, the brand ranking of Life-related industry had the largest alteration (31%). It may be related to the higher expectations of consumers to the life products. The alteration of brand ranking of Telecom had the least alteration. It may be related to the general monopolization of that industry. The average alteration of the industry had reached 20%. It represented the competition between industries would be extremely fierce every year. In the future, as the new ventures rise and the unspecified demand increases continuously, it is expected the industry

alteration of brand would be even higher.

In the correlation analysis, BV and BF have shown low degree of correlation, which meant no matter the consumers were familiar with the brand, they could still partially estimate the brand value. Besides, BR had middle to high degree of correlation with BI, BA and BVD. It represented that the visual design of the brand would be highly related to the willingness of consumers recommending the brand. Although BV and BVD, and BV and BR had not reached significant correlation, it has proved that consumers would be happy to recommend the brand with good brand visual design.

ACKNOWLEDGMENT

This work was partially supported by the Ministry of Science and Technology (MOST), Taiwan, under Grant No. MOST 109-2221-E-218 -018 -MY3.

REFERENCES

- [1] American Marketing Association (AMA). Branding White Paper.
 [Online]. Available:
 https://www.ama.org/the-definition-of-marketing-what-is-marketing/
- [2] D. A. Aaker, "Review of the book leveraging the corporate brand," California Management Review, vol. 46, no. 3, pp. 6-18, 2004.
- [3] A. Chaudhuri and M. B. Holbrook, "The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty," *Journal of Marketing*, vol. 65, pp. 81-93, 2001.
- [4] B. J. Kim, V. Sing, and R. S. Winer, "The Pareto rule for frequently purchased packaged goods: An empirical generalization," *Marketing Letters*, vol. 28, pp. 491-507, 2017.
- [5] D. J. Smith, N. Gradojevic, and W. S. Irwin, "An analysis of brand equity determinants: Gross profit, advertising, research, and development," *Journal of Business and Economics Research*, vol. 5, no. 11, pp. 103-116, 2007.
- [6] D. M. Hanssens, R. T. Rust, and R. K. Srivastava, "Marketing strategy and Wall Street: Nailing down marketing's impact," *Journal of Marketing*, vol. 73, no. 6, pp. 115-118, 2009.
- [7] A. M. Tybout and B. J. Calder, Kellogg on Marketing, New York: John Wiley & Sons, Inc., 2012.
- [8] C. H. Homburg, M. Klarmann, and J. Schmidt, "Brand awareness in business markets: When is it related to firm performance?" *International Journal of Research in Marketing*, vol. 27, no. 3, pp. 201-212, 2010.
- [9] I. Margarita, "Raising brand awareness through the internet marketing tools," *Independent Journal of Management & Production*, vol. 7, no. 2, pp. 320-339, 2016.
- [10] K. Brandz. (2012). BrandZ client brochure. [Online]. Available: http://kantar.jp/whatsnew/2012/01/30/BrandZ%20client%20brochure. pdf
- [11] K. Brandz. (2020). BrandZ top 100 most valuable global brands. [Online]. Available: https://www.kantar.com/Campaigns/BrandZ/Global
- [12] C. W. Park, A. B. Eisingerich, G. Pol, and J. W. Park, "The role of brand logos in firm performance," *Journal of Business Research*, vol. 66, pp. 180-187, 2013.
- [13] A. H. Schechter, "Measuring the value of corporate and brand logos," Journal of Design Management, vol. 4, no. 1, pp. 33-39, 1993.
- [14] Y. Jiang, G. J. Gorn, M. Galli, and A. Chattopadhyay, "Does your company have the right logo? How and why circular- and angular-logo shapes influence brand attribute judgments," *Journal of Consumer Research*, vol. 42, no. 5, pp. 709-726, 2015.
- [15] M. Wang and X. Li, "Effects of the aesthetic design of icons on app downloads: Evidence from an android market," *Electronic Commerce Research*, vol. 17, no. 1, pp. 83-102, 2017.
- [16] F. Reichhel. The one number you need to grow. [Online]. Available: https://hbr.org/2003/12/the-one-number-you-need-to-grow

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