The Strategy Tool: The Trademark Map of Best 100 Brands in the World

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Abstract

In this research, five steps are brought up to build up the trademark map, including (1) deciding sample range of trademarks, (2) analyzing the first-time information, (3) analyzing the second-time information, (4) building up the trademark map, and (5) analyzing the trademark map. This standard procedure can help enterprises create their trademark maps efficiently. A multi-dimensional scale is used for analyzing and building up the trademark map of the most famous one hundred brands, and 86 consumers are requested to proceed with the experiment of brand identification. The results are shown as follows. (1) To display the distribution of trademark samples clearly by building a visualized map, the level of trademark similarity between samples can be understood. (2) Enterprises can the apply trademark map for judging the identification and feasibility of their trademarks so that they are capable of avoiding tort and creating their own and only brand image.

Keywords: brand management, trademark map, consumer identification, brand position, brand strategy

1. Introduction

The brand image and self-image of consumers can be the crutial causes of purchase behavior. The more famous the brand is shown, the phenomenon can be more obvious. Therefore, illegal businessmen tend to interfere consumers' identification with similar trademarks causing confusion and misjudgement and then lead to damaging consumers' rights (Mealema etc, 2010). Trademark has been taken as a central core in an enterprise. For enterprises, relating their images to some rough products in the market by consumers can be a serious problem of degrading their trademark value (Suzuki, 2002).

Brand is not only a logo of products, but also a main reason for influencing purchase behavior (Berry etc., 2007). The moment of consumers reaching their hands for a familiar, safe, trusty product, brand will be a crucial factor (Delgado-Ballester etc., 2005). People are willing to offer more money for similar but much more famous products (Kort etc., 2006; Berthon etc., 2009); therefore, most of the corporations try to promote their products and services by brand expansion.

In the time of a brand which is famous enough for consumers creating associating thinking, brand loyalty starts to be established (Olavarrieta etc., 2009). However, it takes time to accumulate brand reputation (Veloutsou etc., 2009), and brand faith cannot be created over one night as well. Consumers need lots of time to understand the spirit of a brand (Delgado-Ballester etc., 2001). Therefore, creating brand reputation and image has become the crucial goal of brand management (Torres-Moraga etc., 2008). Due to the level of brand satisfaction being able to affect the next purchase of a consumer (Ewing, 2000), service quality and credit of a brand become an important factor (Rauyruen etc., 2009). In addition, finding a way for costumers establishing brand loyalty will raise the ratio for consumers buying the product again (Huber etc., 2009; Shukla, 2009).

After purchasing a product (or a service) through brand identification, brand has delivered the value of its product (or service) to consumers, and a consumer can gain invisible emotion besides the actual product (or service). At the time consumers accumulating their positive view about a brand, the brand value is accomplished. Brand value is an invisible property of a corporation. Continually increasing value can make a brand much more well-known and

become a strong support of the company (Gabay etc., 2009). However, there is no visual map of trademarks related research.

Enterprises take trademark as a praised product or a combination with logo, symbol, and mark of its service brand, which is also used for separating other similar products in the market (Palumbo etc., 2000). The benefits of having a trademark contain assisting consumer in identifying the product, understanding the source and quality of the product, and making enterprises well-known in public (Barnes, 2009). Trademarks are positively being taken charge of product sales and enterprise development. WIPO (World Intellectual Property Organization) has defined trademark widely as "making trademark owner gain brand awarenss and profit, and preventing selling product from competitors and their similar trademark or service". Therefore, trademark protection has become a common consensus in many countries, which start to legislate for relevant issues.

Due to the main principle of trademark law being to become the first resgister, trademark must be protected at the beginning of application, for example, resgisteration. Before registering a trademark, one has to search the current database for any similar trademarks to avoid tort (Qi etc., 2010). After registration, the trademark owner should start paying attention carefully to similar or any other trademarks which can lead to confusion and make sure the legal right for their trademark not being harmed. Substantive scope of trademark rights so far not been objectively defined.

The key function of trademark is for consumer indentifying the brand of products or services. However, two different trademarks with the combination of some similar parts indicate harassment. The types of trademark similarity mostly are apperence similarity pronunciation similarity, and concept similarity.

To judge the similarity of two trademarks, it depends on objective consumers with common sense. When there is confusion and mix-up, these two trademarks are similar. The main principles to judge trademark similarity are (1) fully observation, (2) observing at different time and different places, and (3) the level of similarity within the entire image. In fact, there exists no specific procedure and solution to judge trademark similarity.

The trademark mix-up is a phenomenon about consumers misjudging the source of products or services due to the trademark similarity. According to the WIPO, the examination standards are published and eight judging factors are brought up (TIPO, 2012) as (1) level strength of distinctiveness of the trademark(s), (2) whether the trademarks are similar and if yes, the extent of similarity between them, (3) whether the goods/services are similar and if yes, the extent of similarity between them, (4) status of the diversified operation of the prior right holder, (5) circumstances of actual confusion, (6) the extent to which relevant consumers are familiar with the trademarks concerned, (7) whether the applicant of the trademark at issue in question has filed such application in good faith, and (8) other factors that may cause confusion.

The judgment of trademark mix-up is mainly to clarify whether the trademark confusing costumer or not, and to make sure whether the applicant of trademark cause any violation against other peoples' legal rights or not. Even though there are strict law for trademark protection to assist people in judging trademark mix-up and confusion, trademark designers and owners will not enjoy being prohibited using their own trademark due to similarity problem, and they even need to go to court. Therefore, the study of logo similarity does have extraodinary impact on enterprises.

Due to trademark being a symbol of a brand, businessmen can have the monopoly to use it for the company or products (George, 2006). Therefore, when there are a relative thought between two brands, there possibly exists tort (Arvidsson, 2006). Most of tort happened in mid-small enterprises or a person commited. Some of them are intentionally acts, and the others are unpremeditated torts. The proportion of unpremeditated tort is high. Besides, the major reason of tort particially is from unclear definition and standards in logo similarity. In addition, in the real case, judges tend to compare the complained trademark and defended trademark alone, and make every trademark tort become a single case. The result of a single case can not be applied to the tort trial. Therefore, how to use an objective way to build up a full-scale trademark map for judges, enterprises, logo designers and consumers to judge trademark similarity has become an important issue.

In the time of enterprises pursuing global brand distribution becomes a trend, the production of trademark map and search engine toward trademarks becomes more important as well. Enterprises need to be familiar with competitors' trademark distribution before promoting their brand to the world. In this research, the way of building patent map is taken as a reference to create enterprise brand into a trademark map. This research can display the level of trademark similarity clearly and ensure the feasibility of trademark application.

Through building up a trademark map to visualize trademark orientation, so far the research on trademark map is limited, but not this research! This research can be applied to the fields of (1) creating an objective view about

trademarks for judges judging tort by building up the related trademark map, (2) enterprises beign able to build up a trademark map within its field to find its position in the market, and (3) trademark designers bein able to build up trademark maps of their concepts, and use it for avoiding tort while designing trademarks.

2. Method

Every intellectual property organization in advanced countries, like United States Patent and Trademark Office (USPTO), European Patent Office (EPO), and Japan Patent Office (JPO) etc., can be divided the published references about trademarks into two categories. (1) Background describing data (it can also be called one-time data). Like trademark serial number, application data of trademarks, publishing day of registration…etc, these describe information about trademark background. (2) Technical context data (also be known as second-time data). It means the main body of the trademark design and the symbol of the brand. The second-time data are more subjective, but have more values in it. Building up a trademark map is an analysis and criticition toward both the one-time and the second-time data.

2.1 Subjects

The main purpose of trademarks is to avoid confusion and mix-up problems of consumers. In addition, there are three principles to judge trademark similarity, including (1) full observation, (2) observing at different time and different places, and (3) the level of similarity within the entire image and all ordinary customers being the main subjects. Therefore, normal consumers are regarded as the testing subjects to observe where about trademarks consumers with common purchase experience can be confused while paying attention to products. Due to the sharper observation from trademark designers and people related to trademark firms, trademark designers and related people are deliberately eliminated, and only normal customers are the main subjects. Besides, sampling with simples and random principles are utilized.

2.2 Brand Samples

The estimating report with credibility about the best 100 brands in the world was published by Brandz (2009) and Interbrand (2010). Due to different pricing ways, the results were various. Brandz followed 650,000 consumers and experts fixedly, and Interbrand emphasized the expert research. The major function of trademarks is providing product identification to increase the chance of repeatly purchase that the point of view from consumer is more important. Therefore, the published brand report from Brandz was used as the proinciple resource of studying samples. In addition, to avoid people tending to focus on the most familiar trademarks, the brand report within this year were skipped, and the published report of the best 100 brands in the world was taken as the major studying samples. The selecting samples are as follows in Table 1.

Table 1. The best 100 brands in 2009 (Data source: Brandz 2009 Report)

No.	Brand Name	No.	Brand Name	No.	Brand Name	No.	Brand Name	No.	Brand Name
1	Google	21	TESCO	41	Bank of america	61	TD	81	Yahoo
2	Microsoft	22	Gillette	42	Dell	62	Movistar	82	Hermes
3	Cocacola	23	Intel	43	Accenture	63	T mobile	83	J.P.morgan
4	IBM	24	China construction bank	44	Pepsi	64	Wrigleys	84	Ariel
5	Mcdonals	25	Oracle	45	Loreal	65	Auchan	85	Tide
6	Apple	26	Amazon	46	American Express	66	Chase	86	Gucci
7	China mobile	27	Bank of china	47	Carrefour	67	Nissan	87	MasterCard
8	GE	28	At&t	48	RBC	68	DHL	88	Goldman sachs
9	Vodafone	29	LV	49	Citi	69	Fedex	89	Starbucks
10	Marlboro	30	HSBC	50	Honda	70	Home depot	90	Barclays
11	Walmart	31	Pampers	51	Siemens	71	MTS	91	State farm

12	ICBC	32	Nintendo	52	Budweiser	72	Eunauh	92	Morgan Stanley
13	Nokia	33	Cisco	53	Orange	73	Canon	93	ING
14	Toyota	34	Verizon	54	Ebay	74	ALDI	94	KFC
15	UPS	35	Porsche	55	BBVA	75	AVON	95	IKEA
16	Blackberry	36	VISA	56	Colgate	76	Zara	96	NIVEA
17	HP	37	Wells fargo	57	Target	77	O2	97	Esprit
18	BMW	38	Santander	58	H&M	78	Standard chartered	98	Bradesco
19	SAP	39	Docomo	59	Nike	79	Red bull	99	TIM
20	Disney	40	Benz	60	Subway	80	china merchants bank	100	Lowes

2.3 Experimental Design

To move forward and transfer one-time data into second-time data, authors made the trademark samples of the famous 100 brands into graphic cards, and the cards only showed black trademark and sample number (as in Figure 1). Besides the graphic card, any related information was not provided in case of unnecessary interference. Then, 100 normal consumers were requested to devide the trademark samples into groups according to their similarityies. The grouping results were screened by examining the questions in questionnaires that 14 questionnaires were eliminated for 86 efficient copies.

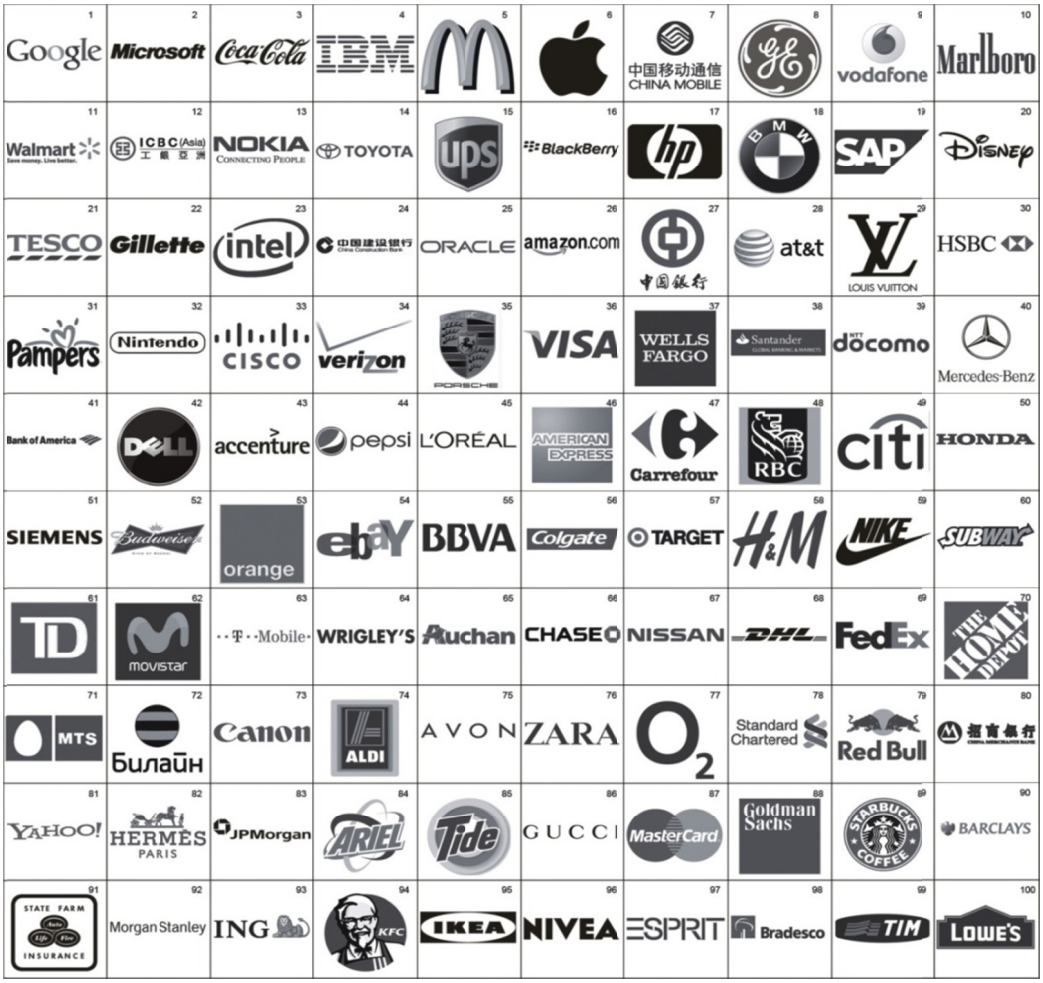

Figure 1. The trademark samples of the best 100 brands in the world

After the consumers dividing the graphic cards, the authors moved forward to organize the grouping results. Appendix 1 shows the result of grouping by normal consumers. Taking Appendix 1 as the explaining sample, the number in the matrix of trademark samples number 3 and 5 were 67, indicating that 67 out of 86 consumers considered that the samples number 3 and 5 were not similar (the rest 19 consumers believed that these two samples were similar). Janssensa once applied MDS in information science (Janssensa, 2006) and achieved the demand for visualizing the trademark information. Therefore, multi-dimensional scale (MDS) was used for analyzing Appendix 1.

3. Result

Total 100 questionnaires were sent out to normal consumers. Having eliminated 14 invalid questionnaires, there were 86 effective questionnaires. The following information is the basic descriptions from the 86 effective questionnaires. (1) Gender: 39 male subjects (45.3%), 47 female subjects (54.7%), and the ratio of men and women was 1 to 1.2.(2)Age: There were 68 people aged between 21 to 30, and the ratio was 79.1%, 12 people between 31 to 40 years old (14%), 3 people between 51 to 60 years old (3.5%), 2 people under 20 years old (2.3%), and only one person between 41-50 years old. (3) Education: There were 67 college students (77.9%), 15 graduate students (17.4%), 2 high school students (2.3%) and 2 junior high students (2.3%).

There are five steps to create a trademark map, as (1) setting the trademark sample range, (2) analyzing one-time data, (3) analyzing second-time data, (4) building up trademark map, and (5) analyzing trademark map. These five steps will be described separately as follows.

3.1 Setting Range of Trademark Samples

According to the trademark newspaper published by Intellectual Property Office in Taiwan, six crucial descriptions of trademark background were extracted, including (1) Registration Number, (2) Filing Date, (3) Registration Date, (4) Nationality, (5) Owner, and (6) Brand Name. The background descriptions from trademark newspaper within the best 100 brands in the world are listed in Table 2.

Table 2. The background description from trademark newspaper within the best 100 brands in the world

No.	Registration Number	Filing Date	Registration Date	Nationality	Owner	Brand Name
1	4123471	2004/6/10	2012/4/10	United States	Google, Inc.	Google
2	1087879	2010/11/2	2011/5/24	United States	Microsoft Corporation	Microsoft
3	1277043	1982/2/3	1984/5/8	United States	The Coca-Cola Company	Cocacola
4	1205090	1980/4/30	1982/8/17	United States	International Business Machines Corporation	IBM
5	2393485	1999/10/26	2000/10/10	United States	Mcdonald's Corporation	Mcdonals
6	2180949	1995/8/8	1998/8/11	United States	Apple Computer, Inc.	Apple
7	2878429	2002/10/28	2004/8/31	China	China Mobile	China Mobile
8	0878049	1969/3/14	1969/10/7	United States	General Electric Company	Ge
9	3561152	2006/3/17	2009/1/13	Kingdom	Vodafone Group Plc	Vodafone
10	0068502	1907/10/17	1908/4/14	United States	Philip Morris Brands Sarl	Marlboro
11	3546870	2008/7/1	2008/12/16	United States	Wal-Mart Stores, Inc.	Walmart
12	2921910	2001/6/5	2005/2/1	United States	Icbc Bank	ICBC
13	0871846	2005/11/18	2009/6/23	Northern Europe	Nokia Corporation	Nokia
14	3655725	2008/6/30	2009/7/14	Japan	Toyota Group	Toyota
15	2867999	2003/3/24	2004/7/27	United States	United Parcel Service Of America, Inc.	Ups
16	3102687	2004/9/3	2006/6/13	Canada	Research In Motion Limited	Blackberry
17	1251648	1982/9/13	1983/9/20	United States	Hewlett-Packard Company	Hp
18	1450212	1984/6/29	1987/8/4	Germany	Bayerische Motoren Werke Aktiengesellschaft	Bmw
19	2688100	2001/8/1	2003/2/18	Germany	Sap Aktiengesellschaft	Sap
20	3548154	2007/4/5	2008/12/16	United States	Disney Enterprises, Inc.	Disney
21	3195448	2004/11/4	2007/1/9	Canada	Tesco Stores Limited	Tesco
22	3547795	2007/8/27	2008/12/16	United States	The Gillette Company	Gillette

23	3730085	2005/12/21	2009/12/22	United States	Intel Corporation	Intel
24	3098324	2004/5/21	2006/5/30	China	China Construction Bank	China Construction Bank
25	3619756	2006/10/17	2009/5/12	United States	Oracle Corporation	Oracle
26	2789101	2000/1/12	2003/12/2	United States	Amazon Technologies, Inc.	Amazon
27	3182253	2005/4/4	2006/12/12	China	Bank Of China	Bank Of China
28	1688845	1991/4/26	1992/5/26	United States	At&T Corp.	At&T
29	1519828	1988/5/6	1989/1/10	France	Vuitton & Fils	LV
30	2000657	1994/10/18	1996/9/17	United Kingdom	The Hongkong And Shanghai Banking Corporation	Hsbc
31	2821456	2000/3/6	2004/3/9	United States	The Procter & Gamble Company	Pampers
32	1689015	1991/1/4	1992/5/26	United States	Nintendo Co., Ltd.	Nintendo
33	3747597	2008/10/15	2010/2/9	United States	Cisco Technology, Inc.	Cisco
34	2879802	2000/3/3	2004/8/31	United States	Verizon Trademark Services, Llc.	Verizon
35	0991621	1972/3/10	1974/8/20	Germany	Dr. Ing. H.C. F. Porsche Aktiengesellschaft	Porsche
36	3357216	2005/4/8	2007/12/18	United States	Isa International Service Association	Visa
37	2526696	2000/1/5	2002/1/8	United States	Wells Fargo & Company	Wells Fargo
38	4120918	2011/6/2	2012/4/3	Spain	Santander Investment Bank, Ltd.	Santander
39	3370301	2008/6/12	2012/5/22	Japan	Ntt Docomo, Inc.	Docomo
40	0285557	1929/8/16	1931/7/28	Germany	Daimler-Benz Aktiengesellschaft	Benz
41	4146809	2011/12/9	2012/5/22	United States	Bank Of America Corporation	Bank Of America
42	1860272	1992/2/27	1994/10/25	United States	Dell Computer Corporation	Dell
43	3862419	2008/6/18	2010/10/19	Switzerland	Accenture Global Services Gmbh	Accenture
44	3684305	2008/10/6	2009/9/15	United States	Pepsico, Inc.	Pepsi
45	0661746	1956/6/25	1958/5/13	France	L'oreal	Loreal
46	1032516	1975/1/27	1976/2/3	United States	Carreras Limited	American Express
47	3720625	2008/4/16	2009/12/8	France	Carrefour	Carrefour
48	2885583	2001/8/10	2004/9/21	Canada	Royal Bank Of Canada	Rbc
49	3441460	2006/12/7	2008/6/3	United States	Citicorp	Citi
50	3108842	2004/12/9	2006/6/27	Japan	Honda Group	Honda
51	2392496	1997/4/3	2000/10/10	Germany	Siemens Aktiengesellschaft	Siemens
52	3715882	2007/10/16	2009/11/24	United States	Anheuser-Busch, Incorporated	Budweiser
53	3722405	2005/7/22	2009/12/8	United Kingdom	Orange International Developments Ltd.	Orange
54	3380423	2007/2/9	2008/2/12	United States	Ebay, Inc.	Ebay
55	2657695	2000/1/28	2002/12/10	Spain	Banco Bilbao Vizcaya Argentaria,S.A.	Bbva
56	3450987	2005/10/25	2008/6/17	United States	Colgate-Palmolive Company	Colgate
57	3229570	2006/6/1	2007/4/17	United States	Target Brands, Inc.	Target
58	3992496	2010/8/10	2011/7/12	Sweden	H & M Hennes & Mauritz Ab	H&M
59	1595356	1989/10/13	1990/5/8	United States	Nike International Ltd.	Nike
60	3869196	2009/8/24	2010/11/2	United States	Doctor's Associates, Inc.	Subway
61	3037995	2004/11/15	2006/1/3	Canada	Td Bank	TD
62	3283182	2005/7/19	2007/8/21	Spain	Telefonica, S.A.	Movistar

63	3662569	2008/4/18	2009/8/4	Germany	Deutsche Telekom Ag	T Mobile
64	3517162	2007/2/7	2008/10/14	United States	Wm. Wrigley Jr. Company	Wrigleys
65	1633554	1990/3/12	1991/1/29	France	Auchan	Auchan
66	3739986	2009/7/6	2010/1/19	United States	The Chase Manhattan Corporation	Chase
67	1448362	1986/9/15	1987/7/21	Japan	Nissan Group	Nissan
68	1721830	1991/4/24	1992/10/6	United States	Dhl Corporation	DHL
69	3413407	2006/7/19	2008/4/15	United States	Federal Express Corporation	Fedex
70	1297161	1983/9/12	1984/9/18	United States	Homer Tlc, Inc.	Home Depot
71	2994515	2004/2/2	2005/9/13	Germany	Mobile Tele Systems	MTS
72	2699023	2006/9/19	2007/10/30	Russian	Beeline Mobile Telecommunications	Beeline
73	78718666	2005/9/22	2006/12/26	Japan	Canon Group	Canon
74	3414110	2007/3/26	2008/4/22	United States	Aldi CORPORATION	Aldi
75	0635518	1955/8/26	1956/10/9	United Kingdom	Avon Products, Inc.	Avon
76	4030529	2010/7/20	2011/9/27	Spain	Industria De Diseno Textil, S.A.(Inditex, S.A.)	Zara
77	4074558	2009/9/16	2011/12/20	United States	O2 Holdings Limited	O2
78	2667489	2011/11/16	2012/8/7	United Kingdom	Standard Chartered Plc	Standard Chartered
79	3197810	1995/8/10	2007/1/16	Austria	T.C. Pharmaceutical Industries Co., Ltd.	Red Bull
80	3110886	2004/8/23	2006/7/4	China	China Merchants Bank	China Merchants Bank
81	2040691	1996/4/24	1997/2/25	United States	Yahoo! Inc.	Yahoo
82	1364533	1984/8/9	1985/10/8	France	Hermes-Gestion	Hermes
83	2651489	2001/6/27	2002/11/19	United States	Jpmorgan Chase & Co.	J.P.Morgan
84	3773373	2009/5/13	2010/4/6	United States	The Procter & Gamble Company	Ariel
85	3534633	2007/1/12	2008/11/18	United States	The Procter & Gamble Company	Tide
86	0876292	2011/11/7	2012/5/22	United States	Guccio Gucci Soc. R. L.	Gucci
87	85434372	2011/9/28	2012/7/31	United States	Mastercard International Incorporated	Mastercard
88	1975880	1994/10/12	1996/5/28	United States	Goldman, Sachs & Co.	Goldman Sachs
89	1943361	1993/7/26	1995/12/26	United States	Starbucks Corporation	Starbucks
90	3855302	2006/12/13	2010/10/5	United Kingdom	Barclays Bank Plc	Barclays
91	3373041	2006/7/3	2008/1/22	United States	State Farm Mutual Automobile Insurance Company	State Farm
92	2729993	2001/3/5	2003/6/24	United States	Morgan Stanley Dean Witter & Co.	Morgan Stanley
93	74261048	1992/3/31	1992/11/24	United States	Internationale Nederlanden Bank N.V.	Ing
94	2281415	1998/7/31	1999/9/28	United States	Kentucky Fried Chicken International Holdings, Inc.	Kfc
95	1659330	1990/5/7	1991/10/8	Netherl	Inter Ikea Systems B.V.	Ikea
96	0936721	2007/7/6	2008/7/1	Germany	Beiersdorf Ag	Nivea
97	1401275	1980/3/24	1986/7/15	United States	Esprit International	Esprit
98	2243427	1997/4/17	1999/5/4	Brazil	Bradesco Bank	Bradesco
99	3130133	2004/11/16	2006/8/15	Italy	Telecom Italia S.P.A.	Tim
100	4001201	2010/7/9	2011/7/26	United States	Lf Corporation	Lowes

3.2 Analyzing the One-Time Data

Famous enterprises still own its trademarks legally and continuously, indicating that enterprises still use brand as their weapon. In addition, within the best 100 brands (as shown in Figure 2), almost half of the brand nationalities are America, following by German (9%), England (7%), Japan (6%)…, etc. The ratio shows that advanced countries still hold the edge.

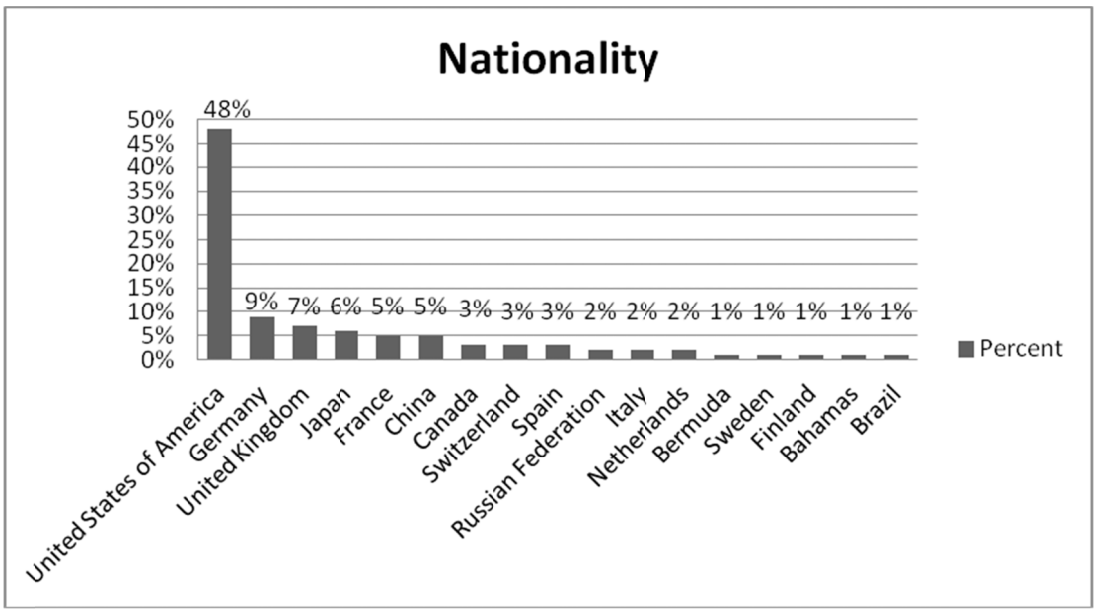

Figure 2. The statistics about the best 100 brands, published by Brandz in 2009

Due to the property of the best 100 brands belonging to different categories, the classification published by Interbrand and Brandz was taken as the standard to group the best 100 brands in 13 property categories, Table 3.

Table 3. The property categories of the one hundred brands

No	Sector	Brand
1	Technology	Google, Microsoft, IBM, Apple, GE, Nokia, Blackberry, HP, SAP, Intel, Oracle, Cisco, Dell, Accenture, Siemens, Canon, and Yahoo.
2	Soft drinks	Cocacola, Pepsi, and Red Bull.
3	Fast food	Mcdonals, Subway, Starbucks, and KFC.
4	Mobile operators	China Mobile, Vodafone, At&T, Verizon, Docomo, Orange, Movistar, T Mobile, MTS, Beeline, O2, and TIM.
5	Retail	Walmart, TESCO, Amazon, Carrefour, Ebay, Target, Auchan, Home Depot, ALDI, IKEA, and Lowes.
6	Financial Institutions	ICBC, China Construction Bank, Bank Of China, HSBC, VISA, Wells Fargo, Santander, Bank Of America, American Express, RBC, Citi, BBVA, TD, Chase, Standard Chartered, China Merchants Bank, J.P.Morgan, Mastercard, Goldman Sachs, Barclays, Morgan Stanley, and Bradesco.
7	Cars	Toyota, BMW, Porsche, Benz, Honda, and Nissan.
8	Personal care	Gillette, Pampers, Loreal, Colgate, AVON, and NIVEA.
9	Luxury	LV, Hermes, and Gucci.
10	Gaming consoles	Nintendo.
11	Beer	Budweiser.
12	Apparel	H&M, Nike, Zara, and Esprit.
13	Insurance	State Farm, and ING.
14	Others	Marlboro, UPS, Disney, Wrigleys, DHL, Fedex, Ariel, and Tide.

3.3 Analyzing the Second-Time Data

To study the closer distance between trademark samples, the grouping results of the 86 trademark samples were organized into a diverse matrix (as shown in Appendix 1). In addition, the distance between trademark samples was analyzed by MDS and run on the SPSS software. As the result, the distribution of every trademark sample appeared in different dimensions.

Table 4 displays the stress coefficient and RSQ of one hundred brands in two to three dimensions. Higher dimension can give more ideal stress coefficient and RSQ. However, the main purpose of trademark map is to easily explain the similarity of trademarks. Due to the trademark distribution in 2D being easy to read, the distribution of trademark samples was shown in 2D.

Table 4. The stress coefficient of one hundred brands in different dimensions

Dimension	Stress	RSQ
2	0.27200	0.66489
3	0.17490	0.80484

3.4 Building up the Trademark Map

According to the analyses of MDS, the 100 trademark samples judged by 86 subjects in 2D coordinate were displayed. Figure 3 shows the trademark map of one hundred brands aiming at normal consumers.

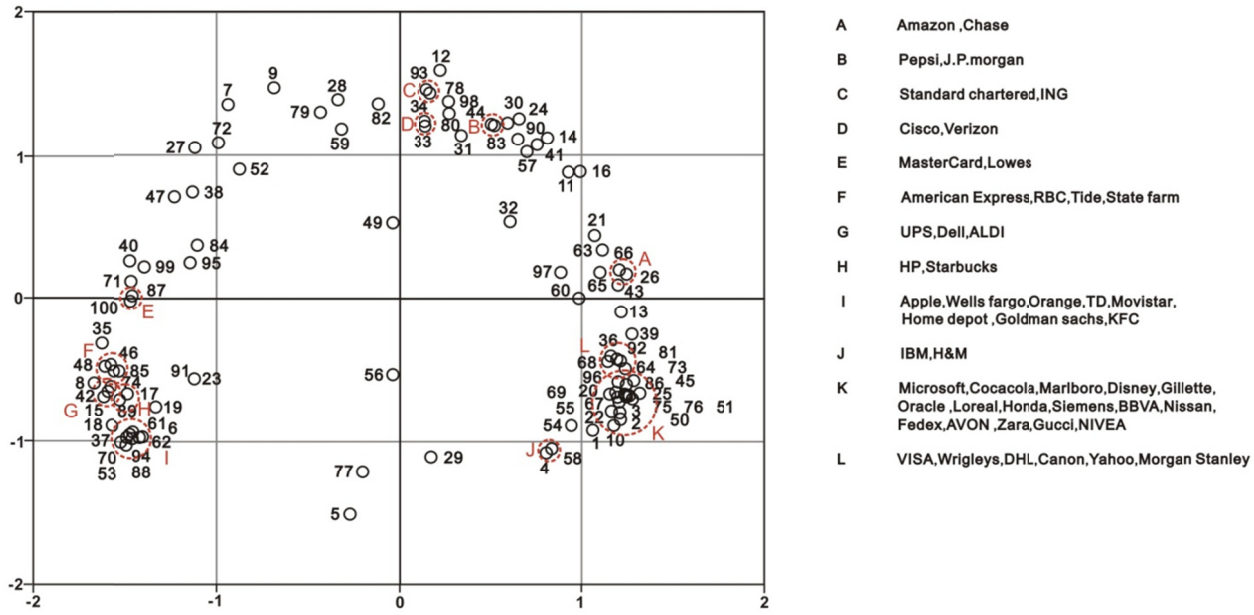

Figure 3. The trademark map of best 100 brands in the world

3.5 Analyzing the Trademark Map

With the comparison between Figure 1 and Figure 3, the distribution situation obviously separates from each quadrant. In first quadrant, there are mostly horizontal words combining with graphic trademarks, and the graphs appear on the right or left side of the words. The majority in the second quadrant are graphs above or beneath the words to combine graphic trademarks. There are mostly geometric graphs in the third quadrant, and word trademarks are placed in the forth quadrant. This design partition shows normal consumers judging trademark similarity by full appearance of the trademark (for example, outline and style) and using it for grouping trademarks.

Judging by the sparse or tight squeeze condition of trademark samples, close samples more likely lay in the third and forth quadrant, meaning the combination of words and graphs (in the second quadrant) can be identified more easier than geometric (in the third quadrant) and word trademarks (in the forth quadrant). Within group I and group K, there exist more overlapping situations like samples no.37, 70, 61 and 53. This condition indicates that these samples have higher similarity and can cause confusion easily for consumers.

4. Discussion and Conclusion

In the past, the brand strategy was usually planed subjectively by top managers of the enterprises. The concept of trademark map in this research can give feedback to top managers for more objective brand strategies and suppress their competitors effectively with unique brand. It is no doubt that trademark map will be one of the best tools for making brand strategies.

The five steps for building up trademark map are (1) deciding the range of trademark samples, (2) analyzing the first-time data, (3) analyzing the second-time data, (4) building up trademark map, and (5) analyzing trademark map. This standard procedure of trademark map building can assist enterprises in creating its own trademark maps with which enterprises can gain advantages of (1) knowing thoroughly about its own brand image, (2) being familiar with the oppression level of competitors, (3) monitoring the brand arrangement of competitors, and (4) planning the entire brand arrangement and investment clearly.

It is ambitious for creating an objective solution toward judging trademark similarity. The main goal is to provide references for brand design and protection by analyzing trademark data and building up trademark maps to display trademark similarity between enterprises. A trademark map can create strong effect on enterprises and brand designers. (1)For enterprises, they should build up trademark maps of their own and competitors' trademarks to understand the brand trademark arrangement from each other. Trademark maps can also be used for assisting enterprises in judging the identification and feasibility of trademark application, increasing distinguishability and avoiding tort. (2) For brand designers, their main job is trademark design that the sensitivity and opinion about brand symbols of designers quite differ from normal consumers. Therefore, designers are suggested to clarify its brand design and trademark design being highly distinguishable by applying trademark maps in the process of trademark design.

Every country has its own law to defense their trademarks as they are under the protection of owners' countries. However, the built trademark map is universal, which can be applied to different countries without any national limitations. Therefore, it is suggested that enterprises can build up trademark maps by following the five steps and develop them into a practical strategy of brand. The strategic tool can create a new edge for enterprises to face the knowledge economic era!

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