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DIMENSIONS IN CONSUMER EVALUATION OF CORPORATE BRANDS AND THE ROLE OF EMOTIONAL RESPONSE STRENGTH (NERS)

Flemming Hansen*, Lars Bech Christensen**

Abstract

This paper looks upon the way in which dimensions, by which consumers evaluate corporate brands, are identified. This is important for the company to know, since it allows management to evaluate and make a strategy in order to plan the image of their brands. A later study by Schnoor (2003) in which corporate brands are evaluated in five dimensions with the use of 38 questions is used as a point of departure for this paper. In order to establish the robustness of the dimensions we repeat the data collection. We identify five unique and robust dimensions along which corporate brands are evaluated. Furthermore, we identify significant changes over time in the evaluation of certain corporate brands along a number of the dimensions. These changes are then explained by the corporate communication (controlled, as well as uncontrolled), which have emerged in the period of time between the two studies.

Key words: Corporate brands, credibility, corporate identity.

Introduction

This paper is concerned with the notion of corporate branding and how it is defined and perceived. In recent years, greater focus has been put on corporate branding and its strategical advantages. At the same time the concept of a corporate brand still lacks a clear universal definition and a clarity as to which dimensions it is evaluated by. At the same time the literature mostly focuses on how to manage corporate brands.

This paper aims to discuss the dimensions of the associations held by stakeholders in their perception of corporate brands. It is not sender-focused but concerned with the perceptual dimensions of corporate brands. Furthermore, after having established these dimensions, we wish to study how corporate brand evaluations change over time.

Corporate brand evaluation

In this paper corporate brand equity is defined in accordance with Keller (2000), i.e. *when relevant constituents hold strong favourable and unique associations about a corporate brand in memory*. A corporate brand can encompass a wider range of associations in the minds of consumers, which makes it distinct from a product brand.

It is measured with 38 statements taken from Schnoor 2003. In her work she describes how these batteries were selected from existing international batteries.

Research objectives and hypotheses

The objective of this study is to establish, whether dimensions found in the consumer evaluation of corporate brands are robust over time, making it possible to examine changes in the evaluation of corporate brands.

We hypothesise that the perception of corporate brands can be evaluated using the same general method used in evaluating spokespersons (Hansen & Koch, 2001), and that the resulting dimensions are relatively robust over time.

Furthermore, we hypothesise that it will be possible to identify changes in the evaluation of corporate brands, and that these changes will enable corporate managers to better understand on the value of their corporate brands. This should enable corporate managers to better focus the efforts of enhancing the corporate brand value over time.

Method

The paper presents two exploratory studies; one carried out in 2001, and reported in Schnoor (2003), concerning the perception of 10 well-known Danish corporate brands and the dimensions we evaluate them by, and a follow-up study carried out in February 2005 concerning the same 10 companies, but with different respondents.

The 10 corporate brands belonged to 5 different areas of service business: airline, insurance, computer/internet, do-it-yourself retailing, and public service procurement (rail and mail). All 10 brands are well-known throughout Denmark.

The 2001-study included a total number of 169 respondents, all under-graduate students at a major, Danish business school. Respondents would fill out a questionnaire, asking them to evaluate their knowledge of each of the 10 included corporate brands on a 5-point scale, ranging from “no knowledge at all” to “great knowledge”.

Afterwards, the 38 adjectives were presented to them, and they were asked to indicate if they felt that a given adjective would characterise a given corporate brand. The 38 statements were selected from existing company and product brand evaluation batteries.

The follow-up study

In February 2005, we repeated the 2001-study. This time, 68 respondents, also under-graduate students, answered the same questions. The aim of repeating the study was two-fold: We wanted to test the robustness of the dimensions found in the first study, and secondly we wanted to investigate whether any changes in the consumer perceptions of the corporate brands could be identified from the data. The role of emotions in consumer evaluation of alternatives is gaining increased attention (Bechara & Damasio, 2005; Daeyeol, 2005; Deppe et al., 2005, Kenning & Plassmann, 2005; Huang, 2001; Kahneman, 2002; and Manstead et al., 2004). Also in political science a concern for emotional processes has grown up (Marcus, 2003; and Wolak et al., 2003). To explain the possible effect of emotions we incorporated measures of Net Emotional Response Strength (NERS) in the data collection to study the extent that corporate evaluations relate to emotional responses to the same corporation. NERS is a summary measure of emotional responses based on respondents' answer to a number of scales measuring how different positive and negative feeling words relate to the (here) corporations in question (Hansen & Christensen, 2007).

Table 1

Battery of adjectives used and how they factor out
(2001 study N=169, 2005 study N=68, Total N=237)

Adjectives	2001	2005	Both
Successful	1	1	1
Purposeful	1	1	1
Strong	1	1	1
Ambitious	1	1	1
Intelligent	1	1	1
Professional	1	1	1
Powerful	1	1	1
Self-confident	1	1	1

Table 1 (continued)

Adjectives	2001	2005	Both
Visionary	1	1	1
Competent	2	1	1
Efficient	1	1	1
Decisive	1	1	1
Serious	2	1	1
Admirable	1	1	1
Knowledgeable	1	1	1
Organized	2	1	1
Colourful	3	3	2
Energetic	3	3	2
Cheerful	3	3	2
Extrovert	3	3	2
Active	3	3	2
Correct	2	2	3
Trustworthy	2	2	3
Just	2	2	3
Honest	5	2	3
Original	5	2	3
Open-minded	5	2	3
Sympathetic	5	5	3
Arrogant	4	4	4
Boastful	4	4	4
Superficial	4	4	4
Authoritative	4	4	4
Aggressive	4	3	4
Thoughtful	5	5	5
Capable of admitting mistakes	5	5	5
Warm	5	5	5
Sensible	2	5	5
Responsible	2	1	5

Varimax rotated principal component factor analysis
 Variance explained₂₀₀₁ = 30.2 %, VE₂₀₀₅ = 39.9 %, VE_{All} = 35.2 %

Findings and discussion

Exploratory principal component factor analyses were performed on data from the initial study, and five different and interpretable factors were identified, each describing the dimensions by which respondents seemed to perceive the 10 corporate brands. These were *success*, *credibility*, *exuberance*, *forcefulness*, and *sincerity*. Although 3 additional factors had eigenvalues above 1, it seemed prudent, based on a scree test of the principal components and lack of interpretability of these additional factors, to limit the number of factors included to 5. .

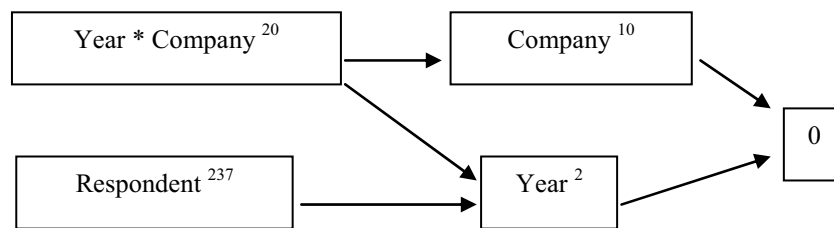
Conducting confirmatory principal component factor analysis on the data from the follow-up study, five similar factors were identified. This suggests that the perceptual dimensions are the same regardless of the respondents and, more importantly, over time. Table 1 shows the 3 principal component factor solutions, i.e. the factor solutions based on the 2001-data, the 2005-data, and

both sets of data combined. There are minor shifts among the adjectives between the factors, mostly between factors 3 and 5 (in the total factor solution), while factors 1, 2 and 4 seem to be very stable over time. Cronbach's α for the total battery of statements was found to be between .76 and .86 in the two data samples, indicating overall scale reliability. Values between .45 and .70 were found for each of the five separate dimensions, the lowest values corresponding to the factors explaining the least amount of variance.

Tests comparing the 2001-solution and 2005-solution were performed. A calculation of Catell's s and congruency coefficients between the 5 factors showed similar patterns in the two factor solutions, although factors 2 and 5 were found to be less similar than the other 3; However, roughly similar dimensions were identified in the two sets of data. The amount of variance explained by each of the 3 factor solutions is between 30 and 40%, which is acceptable given the relatively large number of variables.

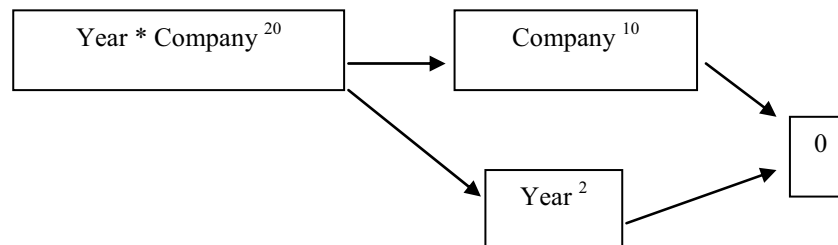
The results of the 3 factor analyses indicate that the use of the scale makes sense to the respondents – and that they are able to evaluate the corporate brands by using this particular scale. Furthermore, the results from the two studies seem to indicate, that corporate brands can be evaluated along the five dimensions: *competence/success* (factor 1), *exuberance* (factor 2), *credibility* (factor 3), *forcefulness* (factor 4), and *warmth/caring/sincerity* (factor 5). It should be noted, that the relatively small number of respondents in the follow-up study (N=68) might present a potential problem when estimating interindividual variance in the analysis. However, this is somewhat countered by the use of relatively homogeneous student samples, and the fact still remains, that both studies point in the same general direction towards the identified dimensions.

In order to identify any changes in the evaluation of the 10 corporate brands along the 5 dimensions found, factor loadings for all 2370 evaluations (10 companies and a total of 237 respondents) on the 5 factors were computed, and these were then taken as dependent variables in the following model:



Since our focus was on the significance of the effects of “Year” and “Company”, and their cross-effect, we needed to eliminate any effect of respondent. This was done in a simple analysis of variance with only the factor “Respondent” included as explanatory variable in the model, with each of the 5 factors taken as dependent variables.

The resulting predicted values of “Respondent” were then subtracted the original factor loadings, in order to eliminate any “Respondent” dependent effects. Following this, the model then became:



Analysis of variance revealed, that the main effect of “Company” was significant. This was not surprising, since the evaluated brands operate in rather different areas of business, and we would expect that different areas of business would be evaluated differently along the 5 dimensions.

Furthermore, strong significance of the cross effect “Year*Company” on each of the five factors was found. The test statistics are shown in Table 2. This seemed to indicate that indeed there had been a shift in the evaluation of some or all of the companies from the initial study to the follow-up study.

Table 2

Significance of cross-effect “Year*Company” in explaining the five factors

"Year*Company" Cross-effect	F	Sign.
Factor 1	10.709	.000
Factor 2	6.574	.000
Factor 3	6.532	.000
Factor 4	3.137	.001
Factor 5	3.179	.001

To identify these changes over time, we then continued to calculate mean factor scores for each of the 10 companies, for the years 2001 and 2005. These can be seen in Table 3, along with the resulting differences. Strong, significant changes were found for several companies along several of the dimensions, indicating that while *the dimensions by which corporate brands are evaluated stay the same over time, the evaluations do not.*

Among the most notable changes we found, that the two IT companies seemed to have moved in opposite directions along the *success* dimension; while *Microsoft* was perceived as even more successful in 2005, it was the other way around for *Jubii*. This could be explained by the fact, that the *Jubii* company in the past 2 years has had some bad publicity in Danish media, amongst other things in the area of employee satisfaction. Also the increased competition in the internet search engine business, most notably from Google, would explain the lowered perceived *success* of *Jubii*. At the same time, though, the *credibility* of the company seems to have increased significantly over the 4 years, probably due to the fact that while the company in 2001 was still perceived as a bold and unconventional newcomer, they were perceived more like a real “brick-and-mortar” company in 2005, after the wave of dot.com failures had faded.

Other notable changes can be observed for *easyJet*. The company has been successful in further establishing its brand in the Danish consumers mind, resulting in more positive evaluations along the dimensions of *success*, *exuberance* and *forcefulness* (evaluated as less forceful implies less arrogant and boastful, i.e. a more positive evaluation along this dimension). *easyJets* primary competitor, *SAS*, on the other hand is evaluated as less *credible* and more *forceful*, mirroring the difficulties that the company has experienced in answering to the increased competition from the low-cost airlines.

Also it is worth noting, that both DIY retailers are perceived as significantly less successful in 2005. This indicates, that respondents in 2005 were less willing to characterise DIY retailers as successful, purposeful, strong, intelligent, etc. In the period between the two data collections, the DIY retail industry in general has been exposed in the media first of all through an ever-increasing amount of DIY-type shows in Television. According to some, this has reached a near “nauseating” level of exposure. This, combined with the fact, that the respondents used are under-graduate students – a group of people who rarely use DIY retailers themselves, could very well be the reason for the lower perception of success of these companies.

Table 3

Evaluation of the 10 corporate brands – changes in factor scores
(Significant changes ($p < 0.01$) in bold**, weak significant changes ($p < 0.05$)*)

Corporate Brand	Year	Factor 1 Success	Change	Factor 2 Exuberance	Change	Factor 3 Credibility	Change	Factor 4 Forcefulness	Change	Factor 5 Warmth	Change
Byggekram	2001	-0.2726	-0.5013**	-0.1808	-0.1010	-0.1549	-0.0163	-0.2168	-0.3009*	0.0968	-0.1689
DIY retailer	2005	-0.7739		-0.2818		-0.1712		-0.5176		-0.0721	
DSB	2001	-0.2677	0.0139	0.0078	-0.1060	0.0264	0.0013	0.2878	0.3234*	0.4527	-0.0600
Natl. railway operator	2005	-0.2538		-0.0982		0.0276		0.6112		0.3928	
EasyJet	2001	-0.1480	0.2329*	0.3651	0.7410**	-0.1892	-0.2110	-0.1281	-0.3613**	-0.2076	-0.3071*
	2005	0.0848		1.1060		-0.4002		-0.4894		-0.5147	
Jubii	2001	-0.0616	-0.3372**	0.9844	0.2774*	-0.0479	0.4077**	-0.0141	-0.0853	-0.2853	-0.2143
Internet search engine	2005	-0.3988		1.2618		0.3598		-0.0995		-0.4997	
Microsoft	2001	1.0215	0.6877**	-0.1881	-0.1385	-0.4266	0.2427*	0.6647	0.0445	-0.5588	0.2409
	2005	1.7092		-0.3267		-0.1838		0.7093		-0.3179	
PostDanmark	2001	-0.1539	0.1081	-0.2418	-0.1375	0.4565	0.3994**	-0.1645	0.1732	-0.0018	0.0350
National mail service	2005	-0.0458		-0.3793		0.8559		0.0086		0.0332	
SAS	2001	0.4139	-0.0881	-0.2831	-0.2205	0.2156	-0.5153**	-0.1347	0.2538*	0.2144	0.3102*
Scandinavian airline	2005	0.3257		-0.5036		-0.2996		0.1191		0.5246	
Silvan	2001	-0.2483	-0.2704**	0.0755	0.0743	0.0015	0.1772	-0.1822	-0.0763	0.1122	-0.2008
DIY retailer	2005	-0.5187		0.1498		0.1787		-0.2585		-0.0886	
TopDanmark	2001	-0.0836	0.0944	-0.3185	-0.2154	0.0200	-0.3194**	-0.1163	0.0952	-0.0898	0.2009
Insurance company	2005	0.0108		-0.5339		-0.2994		-0.0210		0.1111	
Tryg	2001	-0.1997	0.0601	-0.2204	-0.1737	0.0986	-0.1664	0.0041	-0.0663	0.2671	0.1641
Insurance company	2005	-0.1396		-0.3941		-0.0678		-0.0622		0.4313	

In the 2005 data collection NERS scores for the corporations were also measured. This was done with a selection of feeling words used in other studies of emotional responses (Hansen, 2005). With these feeling words two NERS dimensions emerge. They are illustrated in Table 4. The dimensions are the negative and positive emotional response tendencies found in other studies as well.

The measurement of emotional responses to brands, consumption, corporations etc. has some traditions in marketing and consumer behaviour (Bagozzi et al., 1999; Richins, 1997; and Batra & Ray, 1986). NERS (Net Emotional Response Strength) is a recent instrument for measuring such response tendencies.

Table 4

Two NERS dimensions (one negative and one positive) for corporations. Forced two factor varimax rotated factor analytical solution to a battery of 12 feeling items

	Component	
	1	2
Joy	.730	-.053
Happiness	.634	-.087
Inspiring	.605	-.063
Enjoyment	.527	-.118
Hope	.479	.141
Trust	.385	-.278
Surprising	.363	.141
Anger	-.051	.722
Fear	.041	.662
Grief	-.032	.562
Dominating	.092	.380
Accept	.179	-.359

The loadings on the two factors allow for the computation of NERS scores on behalf of each respondent for each of the ten corporations included in the study. This is done by multiplying the factor loadings respondent-by-respondent with scale value of the answer given by the respondent and summing these scores for the positive as well as the negative dimensions. Deducting the latter from the former gives the NERS score. With these NERS scores as the dependent variable and with the factor scores for each respondent on each of the five factors as independent variables, correlation analysis was conducted for each of the ten companies included in the study. The result of this analysis is summarised in Table 5. Here for each corporation the NERS scores are correlated with the factor scores on the five dimensions. The Beta scores in the table reflect how much each of the 5 corporate identity dimensions adds to the explanation of NERS score.

Table 5

Beta values for ten correlation analyses between NERS scores and individuals' perception of corporations in terms of their factor scores on five factors entering into the description of corporate identity. (Significant coefficients (p<0.01) in bold. Weak significance (p ≤ 0.05) in italic)

Corporate brand	DSB	SAS	Tryg	Silvan	EasyJet	TopDK	Jubii	Microsft	Post DK	Byggegram
NERS score	0.1070	1.0092	0.4028	1.0157	1.0101	0.5917	1.3001	0.8239	0.6074	0.9317
Factor 1 "Success"	0.2374	0.5232	0.1599	0.5003	0.2541	0.2463	0.3557	0.3052	0.2092	0.5812
Factor 2 "Credibility"	0.2808	0.1125	0.2475	0.1697	0.4575	0.0898	0.2319	0.4204	0.3126	0.2075
Factor 3 "Extrovert"	0.0953	0.3451	0.1195	-0.0210	0.1826	0.0385	0.3235	0.2268	0.0448	0.2233
Factor 4 "Forceful"	-0.3645	-0.1610	-0.2275	-0.1539	-0.2605	-0.1812	0.0546	-0.2633	-0.4272	-0.0319
Faktor 5 "Warmth/ caring"	0.3336	-0.0472	0.4144	0.1519	0.0821	0.4288	0.2130	0.2033	0.3073	0.3463
R (R ²)	.672 (.451)	.704 (.495)	.558 (.312)	.614 (.377)	.639 (.408)	.557 (.310)	.618 (.382)	.738 (.545)	.706 (.498)	.711 (.505)

From the relatively high correlations (R^2), from a low of .557 to a high of .738, it can be seen that the NERS scores to a large extent can be explained by the way in which people evaluate the different corporations. From analysis of the numerical factor scores, it also appears that for the different corporations different corporate value factors account for the explained variance in the NERS scores.

Thus, we can conclude that the NERS score as a measure of intangible aspects of corporate brand equity to a large extent is explainable in terms of the dimensions along which the corporations are evaluated. And more importantly, we can understand the emotional response to a corporation as being driven by traditional evaluation criteria in the sense that, an obvious interaction between the way in which people think and feel about corporations and their more immediate emotional response to the same is established.

We would expect changes in the NERS scores related to the changing corporate values found between 2001 and 2005 (not reported here) of the corporations but since NERS measures are not available from the 2001 data collection, we cannot document this. We may, however, conclude that NERS scores for corporations rely heavily upon the way in which the same corporations are evaluated on credibility, successfulness, extrovertness, forcefulness and warmth. Moreover, it is evident that different corporate value dimensions account for the NERS scores for different corporations.

Thus it is warranted to conclude that the basic underlying differences in net emotional response potentials for corporations may be seen in the light of cognitive evaluations, consciously or unconsciously of the corporations along the five dimensions included.

Research implications

We have now shown, that it is possible to evaluate corporate brands along the 5 different dimensions of *success, exuberance, credibility, forcefulness, and warmth/caring/sincerity*. Furthermore, we have established that it is possible to identify significant changes for different companies along different dimensions over time, and link these changes to stories in the media and other forms of uncontrolled PR, for instance word-of-mouth.

An obvious implication of this is the need for companies to try to control the “uncontrollable” side of corporate communication, i.e. to minimize the damages of negative stories in the media, and boost the effects of positive ones. With regards to controlling word-of-mouth this can be difficult, and the only sure remedy is to deliver the product or service promised (best illustrated by the *easy-Jet* company).

The next step in our research on the topic of corporate brand evaluation is to gather more data, using a more representative population sample, and evaluating a larger amount of corporate brands from a variety of different business areas, including more corporate brands in retailing.

Also, we would like to link these dimensions of corporate brand evaluation to the more emotionally based impressions held by consumers with regards to corporate brands, in order to further shed light on how corporate brands are perceived and evaluated by the public.

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