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## **COMPONENTS AND PARAMETERS OF CORPORATE REPUTATION – AN EMPIRICAL STUDY\*\***

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### **ABSTRACT**

A wide variety of scientific and semi-scientific publications state that (amorphous) constructs like corporate reputation may cause sustainable profits. The reason for their interest in reputation is that increasing competition in a globalized economy promotes the identification of drivers of sustainable competitive advantages in the field of intangible assets, too. Therefore, in this paper we describe the state of the art in defining and measuring corporate reputation. Literature review, theory based conceptualization, and expert interviews allow us to develop and test an item battery, resulting in a new measurement approach. Our results show that fitting a structural model is much easier if we do not follow American literature, where reputation is supposed to be one-dimensional, but instead split corporate reputation into two dimensions, a cognitive component we call competence and an affective one we call sympathy. We show that performance aspects drive competence but dampen sympathy, whereas responsibility items have positive impact on sympathy and negative impact on competence.

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Keywords: Corporate Image; Corporate Reputation; Intangible Assets.

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### **1 MOTIVATION**

Increasing competition in a globalized economy promotes the identification of drivers of sustainable competitive advantages. The extensive search for these drivers is no longer restricted to tangibles, but has also reached the field of intangible assets. Many scholars, consultants, and practitioners have been working on the development of tools to measure (the intangible) brand equity. But very little attention has been paid to company brand equity or to corporate equity, which is determined by corporate reputation. This fact is quite surprising, since corresponding surveys show that almost any US executive considers corporate reputation to be one of the most substantial drivers of success<sup>1</sup>.

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<sup>1</sup> See *Dunbar/Schwalbach* (2001); *Hall* (1992).

Within the past few years, the importance of intangible assets in general and the significance of corporate reputation in particular have grown rapidly. To create market entry barriers, to foster customer retention, and thus to strengthen competitive advantages, intangible assets are vitally important. Creating and exploiting them allows companies to drive markets, rather than to be market driven. At present, the significance of corporate reputation is not acknowledged by the state of the art, which is aptly described by *Sobol et al.*<sup>2</sup> stating “there is no general agreement on how to measure it, but there is a general agreement that it is important”.

As a first step, in section 2 we define terms and discuss the effects of corporate reputation as reported up to now. Against the background of inconsistent literature we conceptualize corporate reputation as an attitude construct and therefore suggest splitting reputation into two components.

Fuzzy definitions and a lack of scientific literature on the issue should not raise the impression that corporate reputation has not been noticed and measured for a long time. The legendary *Fortune* index “Most Admired Companies”<sup>3</sup> has been published since 1983, and imitations do exist in many countries. In Germany, e.g., the *ManagerMagazin* in 1987 started to serialize a ranking of companies called “Imageprofile”, where we can find the synonymous use of the terms “image”, “reputation” and “esteem” in the accompanying text. A critical survey of measurement concepts is given in section 3.

In chapter 4 we present our model to measure corporate reputation. We use three sources of input:

1. We operationalize categories already known from the literature.
2. We add some new aspects grown out from qualitative research prior to a quantitative study.
3. We refer to attitude theory which suggests splitting reputation (similar to image) into a cognitive and an affective part.

The resulting formative indicators are bundled to indices, followed by an OLS estimation to determine the influence of these indices on corporate reputation. In doing so, we find that building a structural model is a lot easier with respect to fit if – as opposed to American literature – a two-dimensional approach is used. Our data show that the cognitive dimension of reputation can be described as “competence”, and the affective part can be subsumed under “sympathy”. Finally, we identify key drivers of sympathy and competence, so a company may derive hints on how to manage these reputation components.

<sup>2</sup> See *Sobol et al.* (1992), p. 19.

<sup>3</sup> See, e.g., *Ballen* (1992).

## 2 CLARIFICATION AND IMPORTANCE OF CORPORATE REPUTATION

In German parlance, reputation is a synonym to esteem and renown. In American dictionaries we may find reputation defined as "... what is generally said or believed about the abilities, qualities etc. of somebody/something". In the following section we focus on the definition of corporate reputation in economic sciences only.

### 2.1 PERIPHRASES AND DEFINITIONS

Even within economic literature the term "reputation" is used in different context. A survey on the diverse perceptions is given by *Fombrun*<sup>4</sup>. As a result, reputation is characterized as

- the result of a corporate branding in the area of marketing,
- a signal about future actions and behavior, a pledge that justifies and promotes expectations of a principal about the actions of the agent in the field of principle agent theory<sup>5</sup>,
- a kind of goodwill in accounting<sup>6</sup>,
- the manifestation of a corporate identity in the field of organization theory, and
- a potential market entry barrier in the field of management.

In addition to the dictionary definitions, we may find paraphrasing that describes how reputation might possibly develop. *Fombrun/Shanley*<sup>7</sup> show that publics construct reputations on the basis of information about firms' relative positions within organizational fields. The publics do so by using market and accounting signals indicating performance, institutional signals indicating conformity to social norms, and strategy signals indicating strategic postures. *Spence*<sup>8</sup> interprets reputation as outcome of a process in which firms signal their key characteristics to constituents to maximize their social status<sup>9</sup>. *Simon*<sup>10</sup> argues that reputation is the result of satisfying experiences with a company's products. *Weigelt/Camerer*<sup>11</sup> state that reputation is a set of attributes ascribed to a firm, inferred from the firm's past actions<sup>12</sup>.

4 See *Fombrun* (2001), p. 23.

5 See, e.g., *Spreemann* (1988), p. 619; *Milgrom/Roberts* (1982), p. 283.

6 See *Hall* (1992), p. 128; *Weigelt/Camerer* (1988), p. 444.

7 See *Fombrun/Shanley* (1990), pp. 233–234.

8 See *Spence* (1974), p. 107.

9 In this context, signals are alterable observable attributes. One has to notice that only parts of the signals are under a firm's control, others emanate from external monitors (*Spence* (1974), p. 107). Similar to this argue *Caves/Porter* (1977) and *Wilson* (1985).

10 See *Simon* (1985), p. 37.

11 See *Weigelt/Camerer* (1988), p. 443.

12 Similar definitions are given by *Müller* (1996), p. 39, *Dukerich/Carter* (2000), p. 98, and *Buskens* (1999), p. 3.

The quotations given may be the reason that authors are reluctant to give a comprehensive definition of reputation. Instead, many authors focus on more or less disjunctive aspects.

*Fombrun*<sup>13</sup> defines reputation as the overall estimation of a firm by its stakeholders, which is expressed by the net affective reactions of customers, investors, employees, and the general public. However, it is not clear why only affective reactions are allowed, and why cognitive components are excluded. Alternatively, *Gray/Ballmer*<sup>14</sup> define corporate reputation as a valuation of a company's attributes, performed by the stakeholders, what would almost completely exclude affective components. *Hall*<sup>15</sup> combines cognitive and affective components by formulating that a company's reputation consists of the knowledge and the emotions held by individuals.

Unlike scientific publications, more pragmatic literature avoids explicit definitions, particularly since the mere translation clarifies the content of reputation, and the only thing to discuss is how to operationalize it. Hence, at best, such publications state a set of attributes or categories to measure reputation. *Nerb*<sup>16</sup> has screened the web pages of numerous PR and advertising agencies, and concludes that only few agencies explain what is meant by reputation, even if services titled "reputation management" belong to the standard program of many communication service providers. We will take up practitioner's view again in section 3 when discussing the operationalization.

In this paper we follow *Hall's* definition, which we broaden to include the cognitive area, not only by allowing for (objective) knowledge, but also for more subjective perceptions as well. Doing so follows *Dozier*<sup>17</sup>, who points out that reputation may be based on direct experiences as well as on processed communication messages.

The combination of affective and cognitive components points up that we conceptualize reputation as an attitudinal construct<sup>18</sup>, where attitude denotes subjective, emotional, and cognitive based mindsets. Thus, evaluating corporate reputation not only appraises subjective perceptions of a company's attributes (such as "successful company", "high quality products" and so on) but also allows an intrinsic disposition towards these attributes (in the sense of "this company is not that successful, but I like it anyway", or vice versa). This notion is represented in several American publications that do not differentiate between the terms "corporate image" and "corporate reputation"<sup>19</sup>.

13 See *Fombrun* (1996); *Fombrun/Rindova* (2000), pp. 78–79.

14 See *Gray/Ballmer* (1998), pp. 696–697.

15 See *Hall* (1992), p. 138.

16 See *Nerb* (2002), pp. 11–13.

17 See *Dozier* (1993), p. 230.

18 See *Kroeber-Riel/Weinberg* (2003), pp. 168–189.

19 See, e.g., *Bromley* (1993), p. 4.

But setting corporate image and corporate reputation as equivalents does not seem appropriate to us. Image<sup>20</sup> may be described as a central nervous arousal pattern combined with perception, goal-oriented behavior, and cognitive object evaluation. In the ascertainment of image, connotative attributes are allowed anyway. Sometimes it is even postulated to operationalize images using only connotative attributes<sup>21</sup>.

As connotative attributes seem rather inappropriate in measuring attitudes towards a company (and besides this, they do not appear in the attribute sets described in section 3), we conceptualize corporate reputation as attitude construct that is accessible only by denotative attributes.

## 2.2 EFFECTS OF CORPORATE REPUTATION

The following survey on the effects of corporate reputation suffers from the fact that the studies analyzed are not based on identical conceptualizations of the reputation construct. Empirical research refers to *Fortune's* Most Admired Companies<sup>22</sup> or to the Reputation Quotient offered by the Reputation Institute<sup>23</sup>. However, basically the categories measured are the same in both concepts, so it makes sense to gather information on the impact of a strong reputation. Nevertheless, from a philosophical point of view, we cannot know whether a strong reputation is caused by the given fact, or if it is just the other way round.

Strong corporate reputation helps win the war for talents, and fosters employee retention according to *Caminiti, Dowling, Eidson/Master, Preece et al.* und *Nakra*<sup>24</sup>. In this context, *Stigler*<sup>25</sup> also mentions decreasing production costs per unit.

With respect to customers, researchers found that a strong corporate reputation increases customers' confidence in products and services, advertising claims and in the buying decision<sup>26</sup>. Via better customer retention<sup>27</sup> firms can achieve price premiums and higher purchase rates<sup>28</sup>. Taking into consideration that companies showing strong reputation have better access to capital markets, which decreases capital costs<sup>29</sup> and lowers procurement rates<sup>30</sup>, it is obvious that a company's profitability *ceteris paribus* grows with a better reputation.

20 See, e.g., *Spiegel* (1961); *Knoblich* (1992), p. 434; *Kroeber-Riel/Weinberg* (2003), pp. 168–189.

21 See, e.g., *Mazanec* (1978), pp. 59–85.

22 See [http://www.fortune.com/index.html?channel=print\\_article.jhtml&doc\\_id=200420](http://www.fortune.com/index.html?channel=print_article.jhtml&doc_id=200420).

23 See <http://www.thegauge.com/SearchFolder/OldGauges/Vol14No3/fombrunfosreputation1.html>  
<http://www.thegauge.com/SearchFolder/OldGauges/Vol14No3/fombrunfosreputation2.html>  
<http://www.thegauge.com/SearchFolder/OldGauges/Vol14No3/fombrunfosreputation3.html>.

24 See *Caminiti* (1992), p. 49; *Dowling* (1986), p. 112; *Eidson/Master* (2000), p. 17; *Preece et al.* (1995), p. 88; *Nakra* (2000), p. 35.

25 See *Stigler* (1962).

26 See *Fombrun/van Riel* (1998), p. 6; *Goldberg/Hartwick* (1990); *Lafferty/Goldsmith* (1999).

27 See *Caminiti* (1992), p. 49; *Preece et al.* (1995), p. 88.

28 See *Klein/Leffler* (1981); *Milgrom/Roberts* (1986).

29 See *Beatty/Ritter* (1986).

30 See *Schwalbach* (2000), p. 285.

*Roberts/Dowling*<sup>31</sup> show that over time, corporate reputation supports the persistence of above-average profits. To prove this, they decompose overall reputation into a component that is predicted by previous financial performance and that which is “left over”. They find that both elements have positive impact.

Other papers that state positive aspects of strong reputation in terms of general advantages in conducting negotiations with stakeholders include those by *Brown, Cordeiro/Sambharya, Deephouse, Fombrun, McMillan/Joshi, Roberts/Dowling, Srivastava et al.*<sup>32</sup>. Summarizing their work, we may argue that building up a strong corporate reputation creates market barriers in the sense of *Porter*, thus strengthening the company’s strategic position in the competition. Moreover, there are several studies<sup>33</sup> that show a significant correlation between a manager’s compensation and corporate reputation. This finding is backed by *Ballen’s*<sup>34</sup> study, which shows that management quality is the main driver of reputation.

We can state that both the scientific community and the majority of practitioners consider corporate reputation as an intangible asset that is scarce, valuable, sustainable, and difficult for a competitor to imitate. Therefore, reputation is an appropriate tool to achieve strategic competitive advantages. Due to the similarity to attitude concepts, we must bear in mind that building up a strong reputation takes its time, and that the payoff from reputation may require longer periods to become visible.

### 3 TOOLS TO MEASURE CORPORATE REPUTATION

The proliferation of different methods measuring corporate reputation has raised the question of whether or not a standard can be established (e.g., by the *Council of Public Relations Firms*) to evaluate PR programs<sup>35</sup>. However, it seems there is no consensus at the moment.

Until 1997, *Fortune’s* AMAC (America’s Most Admired Companies) was the only reputation ranking available on a global level, but it was restricted to US firms. Only in 1997 did *Fortune* publish the results of a survey on the Global 500, divided into 24 industries and 13 countries and named GMAC (Global Most Admired Companies). In fact, highly regarded companies were not often global players, but something like multinational operating conglomerates.

The third measurement model is used by the German *ManagerMagazin*. The fourth subsection is dealing with RQ-Gold created by *Fombrun* and *Harris Interactive*. Insofar as empirical evidence is available, results are also discussed. We emphasize the potential determinants of reputation, though not denying that causality is ambiguous anyway.

31 See *Roberts/Dowling* (2002).

32 See *Brown* (1997); *Cordeiro/Sambharya* (1997); *Deephouse* (1997); *Fombrun* (1996); *McMillan/Joshi* (1997); *Roberts/Dowling* (1997); *Srivastava et al.* (1997).

33 See *Winfrey/Logan* (1998); *Cordeiro et al.* (1997).

34 See *Ballen* (1992), p. 30.

35 See *Eidson/Master* (2000).

### 3.1 FORTUNE AMAC

Since 1983, about 8,000 persons have been interviewed on a regular basis on behalf of the *Fortune* magazine via phone and mail. The rate of return was about 50%<sup>36</sup> in 1985<sup>37</sup>. Survey members are senior executives, outside directors, and buy- and sell-side analysts. Respondents were asked to name the leading firms in their economic sector (rating is allowed only within the industry), and asked “How would you rate these companies on each of the following attributes”: Innovativeness, quality of management, long-term investment value, community, and environmental responsibility, ability to attract, develop, and keep talented people, quality of products or services, financial soundness, and use of corporate assets. The “Overall Reputation Score (ORS)” is the arithmetic mean of the attributes respondents provided on eight 11-point scales. *Bromley*<sup>38</sup> criticizes the eight categories as being inconcise. *Sobol et al.*<sup>39</sup> refer to the missing definition of reputation in the AMAC, and *Fryxell/Wang*<sup>40</sup> show that due to the financial halo effect the AMAC survey is not a suitable tool for measuring corporate reputation. According to the authors, the reason for the distorting influence of the financial performance is that only experts are asked, and their perceptions may differ considerably from other stakeholders’ perceptions.

An empirical analysis was performed by *Fombrun/Shanley*<sup>41</sup>, who use *ORS* as the dependent variable, and several independent variables. The model was tested on 157 out of 292 firms. The subsample is described as representative. For their analysis *Fombrun/Shanley*<sup>42</sup> calculated one factor score by using principal component analysis, which explained 84% of the total variance. They adjusted the factor score for sectors before using linear regression techniques and achieved a goodness of fit of  $\bar{R}^2 = 0.51$  in explaining the *Fortune* Overall Reputation Score. Details are given in *Table 1*.

We may learn from the study that the AMAC items are highly correlated and that, besides financial data, there are obviously other determinants on reputation. See *Fombrun/Shanley*<sup>43</sup> for a thorough discussion.

*Brown/Perry*<sup>44</sup> agree with the *Fombrun/Shanley* conclusions, saying that reputation is also determined by non-economic criteria. However, they also state that the *Fortune* AMAC is highly influenced by past financial performance data. They sug-

36 See *Hutton* (1986), pp. 16–21.

37 On *Fortune Magazines’* web pages ([www.fortune.com](http://www.fortune.com)) the rate of return for 2002 is given as 40%.

38 See *Bromley* (1993), p. 176.

39 See *Sobol et al.* (1992), p. 12.

40 See *Fryxell/Wang* (1994), pp. 3–6.

41 See *Fombrun/Shanley* (1990), p. 245.

42 See *Fombrun/Shanley* (1990), p. 245.

43 For the surprisingly strong negative effect of media scrutiny on firms’ reputation, the authors offer three explanations. (1) Only events that impugn corporate management deem media reporters newsworthy. (2) External publics in general do react negatively to all forms of publicity. (3) Only negatively predisposed raters considered the firms’ media accounts (see *Fombrun/Shanley* (1990), pp. 252–254). From a modern economist’s point of view (1) and (2) seem rather unlikely.

44 See *Brown/Perry* (1994), pp. 1357–1358.

Table 1: Results of the Fombrun/Shanley Regression Analysis

Independent Variable	Operationalization	$\beta$ -Coefficient
Economic performance	Return on Invested Capital (ROIC) 1984	0.33***
Risk	Coefficient of variation of ROIC in the previous 9 years	-0.30***
Advertising expenditure	Total advertising expenditures in 1984	0.11*
Size	Logarithmic transformation of total sales in 1984	0.15***
Institutional ownership	% of outstanding shares held by banks, insurance companies, and mutual funds	0.18***
Market-book ratio		0.23***
Yield	Yield of the previous four quarters	-0.17***
Visibility (Media exposure)	Total number of articles written about a firm in 1985	-0.20***
Beta	CAPM Beta coefficient	-0.07
Favorability (Media exposure)	Share of positive and neutral articles	0.04
Favorability x Visibility		0.05
Charity	Estimation of charitable contributions during 1984, adjusted for size	0.10**
Foundations	Dummy variable (1, if foundation endowed in 1984)	0.15***

\*\*\*:  $p < 0.01$ ; \*\*:  $p < 0.05$ ; \*:  $p < 0.1$

gest partializing out financial halo-effects. But as correlations between AMAC items and adjusted data are only marginally lower, the main problem still persists.

### 3.2 FORTUNE GMAC

*Fortune's GMAC (Global Most Admired Companies)* is performed by Hay Group consultants. Hay divides the Global 500 into 24 industries and 13 countries, using a sample size of  $n = 5.000$ . Items are those described in the AMAC section with the addition of the "Company's effectiveness in doing business globally". The Overall Reputation Score (ORS) is the arithmetic mean of the nine attributes. Thus, the criticism given in section 3.1 is also valid here.

*Cordeiro/Schwalbach*<sup>45</sup> examined the complete 1997 database and uncovered the following aspects. (However, they note that, due to cultural differences, results may not be transferred from the American market to Germany.)

- Means and standard deviations of the nine attributes (calculated over 195 available firms) fall within a small range. Mean values range from 6.2 to 6.7, standard deviations from 0.98 to 1.34. Correlations among the attributes are rather high ( $\rho \in [0.59; 0.93]$ ), correlations between attributes and ORS are in most

<sup>45</sup> See *Cordeiro/Schwalbach* (2000), pp. 6–10.



cases around 0.9 and above. That raises the assumption that the non-operationalized, fuzzily defined categories are hardly able to discriminate.

- As could be expected from the AMAC criticism, the first factor in a principal component analysis again explains over 80% of the total sum of squares. The highest factor loading is shown by the item “value as long-term investment” (0.922). Differences across national borders are negligible.
- An analysis of variance shows that expected values of the ORS differ between industries ( $p = 0.001$ ) and countries ( $p = 0.000$ ). A sector-specific analysis and a country-specific questionnaire design seem indicated.
- Linear regression analysis using ORS as the dependent variable, and several risk and performance measures as independent variables, shows poor goodness of fit ( $\bar{R}^2 = 0.32$ ), but proves the significant influence of *Jensen's  $\alpha$* , 5-Year-Total-Stock-Return and long-term debts on ORS. Similar results were obtained by *Brown/Perry*<sup>46</sup>.

Additional empirical results for the *Fortune GMAC* show that the ORS depends on ROI, where causality of course remains unclear<sup>47</sup>. *Srivastava et al.*<sup>48</sup> show that a high ORS may influence corporate equity by changing investors' perception of risk. *McGuire et al.*<sup>49</sup> find that the prior return on assets is correlated to the perception of social responsibility. *Dunbar/Schwalbach*<sup>50</sup> show for the German market, and *Cordeiro*<sup>51</sup> for the Indian market, that investment in corporate reputation has positive effects on the future financial performance of firms.

### 3.3 “GESAMTREPUTATION” PUBLISHED BY THE GERMAN MANAGERMAGAZIN

Since 1987, the *ManagerMagazin* has conducted surveys to measure corporate reputation. In 2000, the authorized agent performed a random CATI survey of about 2,500 executives who were asked to rate the top 100 German companies<sup>52</sup> on eleven-point rating scales for the following criteria: Quality of management, innovativeness, ability to communicate, environmental responsibility, financial and economic stability, product quality, value for money, employee orientation, growth rates, attractiveness to executives, and internationalization. The calculation of the overall reputation index is not explained.

Since 1993, the *ManagerMagazin* published additional data concerning the top 500 German firms, including financial ratio systems to analyze the impact of reputation on corporate equity. *Schwalbach* obtained the following empirical evidences<sup>53</sup>:

<sup>46</sup> See *Brown/Perry* (1994).

<sup>47</sup> See *Roberts/Dowling* (1997), too.

<sup>48</sup> See *Srivastava et al.* (1997).

<sup>49</sup> See *McGuire et al.* (1988).

<sup>50</sup> See *Dunbar/Schwalbach* (2000).

<sup>51</sup> See *Cordeiro* (2000).

<sup>52</sup> See *Rieker/Schlote* (1996), pp. 50–52. Sorting is done by turnover.

<sup>53</sup> See *Schwalbach* (2000), pp. 287–294.

- The reputation level varies over time. Within the scope of a cluster analysis performed during the period from 1988 to 2000, only four companies remained in the best reputation cluster (BMW, Bosch, Daimler-Benz, and Siemens). Even if this result does not surprise us too much, it can at least prove that the chosen questionnaire design warrants for sensibility (which is a necessary though not sufficient condition for validity and reliability).
- *Schwalbach's* survey of industry and country specifics confirmed the results of the American studies. In Germany for example, the highest reputation scores are awarded to car manufacturers, lowest to insurance companies, energy supplier, construction firms, and some producers of consumer goods.
- In the German study – as opposed to American research work – reputation is not dominated by financial performance data. *Hildebrandt/Schwalbach*<sup>54</sup> use confirmatory factor analysis within a linear structural relationship model to prove that innovativeness and the ability to communicate show the highest factor loadings on the factor “general reputation”. Quality of management and financial stability show low factor loadings on the factor “financial management”. Following these results, reputation halo is more than a financial phenomenon.
- Generally, the correlation between reputation and corporate equity is positive. Both hypotheses, first, that investments in reputation increase corporate equity and second, that high corporate equity causes strong reputation, were confirmed. This result weakens the statement that there is no such thing as a dominance of financial data.
- A company's size and ownership affect corporate reputation. As with *Fombrun's* results<sup>55</sup>, the biggest companies in Germany show something like a “reputation bonus” as well. Ownership concentration, operationalized as share of proxy voters, has a negative influence on reputation.

### 3.4 HARRIS-FOMBRUN REPUTATION<sup>SM</sup> QUOTIENT (RQ)

The *Harris-Fombrun Reputation Quotient<sup>SM</sup> (RQ)* was developed by *Harris Interactive, Charles Fombrun* and *Cees van Riel*. The questionnaire they use to measure reputation consists of 20 items divided into six “pillars”<sup>56</sup>:

1. Emotional Appeal (Have a good feeling about the company. Admire and respect the company. Trust the company a great deal.)
2. Products & Services (Stands behind its products and services. Develops innovative products and services. Offers high quality products and services. Offers products and services that are a good value for the money.)

<sup>54</sup> See *Hildebrandt/Schwalbach* (2000).

<sup>55</sup> See *Fombrun* (1996).

<sup>56</sup> See *Fombrun* (2001), p. 24.

3. Financial Performance (Has a strong record of profitability. Looks like a low risk investment. Looks like a company with strong prospects for future growth. Tends to out-perform its competitors.)
4. Vision & Leadership (Has excellent leadership. Has a clear vision for its future. Recognizes and takes advantage of market opportunities.)
5. Workplace Environment (Is well-managed. Looks like a good company to work for. Looks like a company that would have good employees.)
6. Social Responsibility (Supports good causes. Is an environmentally responsible company. Maintains high standards in the way it treats people.)

Data sampling is done in two stages: In a nominating phase companies are determined, which receive particularly good or bad values in online and telephone interviews. These interviews are performed among the general population and enquire an overall reputation (in the sense of a global judgment). In the second stage, these companies are evaluated by an online survey on seven-point rating scales that are based on the 20 items described above. For sampling purposes, the researchers use a database allegedly containing more than 7 million addresses. For the RQ 2000, 26,000 online questionnaires were sent out, but there is no statement on the return rate<sup>57</sup>. According to the corresponding web pages in the USA, several industry-specific reputation studies had already been made. In these studies, data covered not only the perceptions of the general public, but also data from financial market experts.

### 3.5 FURTHER CONCEPTS

Besides the named indices of which *Fortune's* AMAC/GMAC are the most widespread and best known, we find the following "reputation rankings"<sup>58</sup>:

- Financial Times: World's (Europe's) Most Respected Companies<sup>59</sup>
- Management Today: Britain's Most Admired Companies
- Burson-Marsteller: Maximizing Corporate Reputation<sup>60</sup>
- Corporate Branding LLC: Corporate Branding Index<sup>61</sup>
- Asian Business: Asia's Most Admired Companies
- Far Eastern Economic Review: REVIEW 200
- Delahaye Medialink: Delahaye Medialink Corporate Reputation Index<sup>62</sup>

57 See [http://www.harrisinteractive.com/pop\\_up/rq/gold.asp](http://www.harrisinteractive.com/pop_up/rq/gold.asp).

58 See *Eidson/Master* (2000), p. 18, too.

59 This survey is done on behalf of *Financial Times* by *PricewaterhouseCoopers*, who have interviewed CEOs from 75 countries since 1998. Before 1998, only European companies were considered.

60 Respondents of this postal survey are executives, outside directors, members of the financial community, politicians, media representatives, and consumers.

61 Telephone interviews among chief executives out of the TOP 20% of US-firms since 1990.

62 Media analyses (print and TV) have been performed since 2000.

The *RQ-Index* is the most advanced measurement model with respect to the remarks in section 2.1. Moreover, we may appreciate that not experts, but a broad range of stakeholders, is surveyed. A thorough discussion on validity and reliability of all described rankings cannot be given in this paper since operationalizations are not given (*Fortune*, *Fombrun*) or not existent (*ManagerMagazin*).

## 4 AN EMPIRICAL ANALYSIS OF CORPORATE REPUTATION

### 4.1 METHODOLOGY

Our research design is a multi-stage design and essentially follows the C-OAR-SE procedure suggested by *Rossiter*<sup>63</sup>. We define corporate reputation as given in section 2.1, and determine that the raters must be the different stakeholder groups.

After screening and evaluating the relevant literature on corporate reputation, we conducted a qualitative study to uncover if and what aspects were not considered (or at least not appropriately) in existing measurement tools. The resulting aspects are given in the following section. They are first- or second-order formed attributes<sup>64</sup>, i.e., categories that are built by formative indicators. Unlike reflective or effect indicators, which are supposed to be caused by the underlying latent variable<sup>65</sup>, formative indicators are variables that cause a latent variable or construct. Therefore, correlations between indicators are destructive rather than helpful.

In our first stage analysis, we operationalized most of the constructs using several similar (or only slightly different) items. This procedure was necessary because most publications on corporate reputation do not give any details on the questionnaire used to measure corporate reputation.

A set of 37 items was then pruned during a small quantitative study (332 probands) using a convenience sample. The resulting set still contained 21 explanatory items which were finally tested in a large, multinational random CATI study.

From these data we received incitements to index construction by looking at the correlations between indicators first, using exploratory factor analysis. Index construction then was done using MIMIC models<sup>66</sup>. For our conceptualization based on attitude theory, two endogenous constructs were necessary. Referring to the literature on brand equity, we could derive useful hints concerning the operationalization of the affective endogenous construct, as shown in section 4.6. Due to a lack of literature on this issue, the cognitive endogenous construct had to be operationalized based on expert knowledge. Using a multiple linear regression analysis, we finally determined the impact of our indices on both our latent endogenous constructs.

63 See *Rossiter* (2002), pp. 306–308.

64 See *Rossiter* (2002), p. 314.

65 See *Diamantopoulos/Winklhofer* (2001), p. 269, and references given there.

66 See *Diamantopoulos/Winklhofer* (2001), p. 272. MIMIC models are the suitable technology to estimate path coefficients when formative indicators are used to describe a latent variable. Path coefficients may then be used as weights to calculate an index.

#### 4.2 DESK RESEARCH AND EXPERT INTERVIEWS

A comprehensive desk research shows that existing reputation measurement tools are based on the following categories, which can be described as first- or second-order formed attributes<sup>67</sup>:

- Quality of employees
- Quality of management
- Financial performance
- Quality of products and services
- Market leadership
- Customer orientation
- Attractiveness
- Social responsibility
- Ethical Behavior
- Reliability

The majority of these latent variables may be assigned to the cognitive area, affective components are somehow neglected. To corroborate our hypothesis that previous studies did not care enough about emotional aspects and to ensure that no important aspects were omitted, we conducted two focus groups and several expert interviews in spring 2001. Probandes were asked to name all aspects which they typically would associate with corporate reputation. As a result, we identified three categories not yet covered by the set of attributes given above and recommended by the *Council of Public Relations Firms*<sup>68</sup>:

- Fair attitude towards competitors
- Transparency and openness
- Credibility

Even if we do not want to determine facts, but rather perceptions, about the categories named, first- and second-order formed attributes have to be operationalized. So the next step was to develop a 61 item set that we discussed with respect to clearness and comprehensibility in qualitative interviews<sup>69</sup> with 40 people. Thus, we allowed for comparatively similar items to learn about most plausible formulations from the raters' point of view. Items dealing with sustainability were most problematic, as the vast majority of our probandes did not know how to interpret the term "sustainable management". We also had to further operationalize the term "good corporate citizenship". The item "[company] offers innovative products / services" led to discussions as well as an item enquiring the willingness to invest money into a certain company. So we decided to use other formulations.

We asked the respondents whether they could think of aspects missing in our questionnaire, but they could not. Moreover, when using very similar items, we asked the respondents about their preferences. As a result, we eliminated 24 items too difficult to understand, too easily misinterpreted, or too close to another one in their formulation.

<sup>67</sup> See *Rossiter* (2002), p. 314.

<sup>68</sup> See <http://www.prfirms.org/>.

<sup>69</sup> Interview duration was between 45 and 60 minutes.

### 4.3 Preliminary Study

After the analysis of the qualitative interviews, 37 items were left and subjected to another, now quantitative, evaluation. As this was only an intermediate step on the way to a well-founded empirical research, we arbitrarily selected the 332 probands whose ratings formed the basis for the intermediate analysis from Munich's busiest areas (e.g., pedestrian zones). In personal-interviews, people were asked to rate up to three German car manufacturers or up to three banking institutes, using 37 items on a seven-point rating scale. As a result we obtained 956 data sets (company evaluations) that we first used to check the discriminative power of the items using ANOVA. Nearly every item showed the power to discriminate among company ratings. The single exception was the item "I suppose [company] will still exist in 50 years".

We used principal component analysis with all 37 items to further streamline the item battery. For different indicators of a construct, we eliminated the ones that showed lower factor loadings or very low communalities in general. We were able to select 21 explanatory items we could use to build our model.

### 4.4 MAIN STUDY

We now used the set of 21 items determined by the previous analysis to create a representative data base. A series of three computer-assisted telephone interview studies was conducted by GfK market research, Nuremberg. The survey was administered to 300 respondents in each of three countries – Germany, Great Britain, and the United States – for a total of 900 respondents, evaluating three (USA) or four (Germany, UK) companies: Allianz (Financial Services and Insurance), BMW Group (Car manufacturer), E.ON (Power Supplier<sup>70</sup>) and Lufthansa (Airline). The result was a sample of 3,296 company evaluations<sup>71</sup>. Potential respondents were screened by asking the questions "Are you involved in decisions concerning your household?" and "Do you have at least a bachelor's degree?" both of which had to be answered with "yes". Moreover, selected respondents had to know the companies at least by name.

Using a random generator, we split the database into two subsamples, an exploration sample sized  $n = 1651$  and a validation sample sized  $n = 1646$ . For descriptive and exploratory analysis we used the complete database to tap the full information potential. To calculate parameters, we used only the exploration sample and validated results by checking for differences between exploration and validation sample.

70 E.ON was evaluated under the name Powergen in the UK, and it was not evaluated in the USA as their local subsidiary LG&E is well-known only in Kentucky.

71 600 respondents rated four companies, and another 300 respondents rated three companies.

Table 2: Correlations (Part I)

Item	Sympathy Items			Competence Items			Explanatory Items (7-27)							
	It. 1	It. 2	It. 3	It. 4	It. 5	It. 6	It. 7	It. 8	It. 9	It. 10	It. 11	It. 12	It. 13	It. 14
1. [company] is a company I can identify with better than with other companies	1.000													
2. [company] is a company I would regret more if it didn't exist any more than I would with other companies	.621	1.000												
3. I regard [company] as a likeable company	.484	.427	1.000											
4. [company] is a top competitor in its market	.313	.311	.451	1.000										
5. As far as I know [company] is recognized world-wide	.222	.256	.400	.530	1.000									
6. I believe that [company] performs at a premium level	.438	.381	.589	.541	.445	1.000								
7. The products / services offered by [company] are of high quality	.369	.354	.596	.617	.533	.646	1.000							
8. I think that [company]'s products / services offer good value for money	.395	.318	.565	.422	.292	.500	.557	1.000						
9. The services [company] offers are good	.394	.355	.598	.565	.469	.595	.675	.573	1.000					
10. Customer concerns are held in high regards at [company]	.389	.347	.585	.479	.397	.565	.607	.558	.621	1.000				
11. [company] seems to be a reliable partner for customers	.388	.380	.585	.547	.460	.606	.659	.535	.650	.616	1.000			
12. I have the impression that [company] is forthright in giving information to the public	.415	.351	.579	.380	.286	.505	.505	.516	.526	.560	.534	1.000		
13. I regard [company] as a trustworthy company	.415	.402	.638	.565	.446	.607	.651	.570	.627	.620	.664	.617	1.000	
14. I have a lot of respect for [company]	.480	.425	.632	.518	.425	.623	.626	.544	.599	.603	.611	.581	.673	1.000
15. I have the impression that [company] has a fair attitude towards competitors	.395	.356	.496	.381	.292	.462	.473	.479	.483	.470	.494	.544	.534	.522
16. In my opinion [company] tends to be an innovator, rather than an imitator with respect to [automotive engineering / financial services...]	.401	.360	.487	.540	.461	.558	.581	.453	.525	.494	.523	.468	.538	.562
17. In my opinion [company] is successful in attracting high-quality employees	.310	.369	.441	.526	.474	.517	.554	.377	.501	.466	.542	.350	.502	.483
18. I could see myself working at [company]	.356	.394	.327	.251	.194	.325	.275	.238	.287	.257	.293	.255	.311	.336
19. I like the physical appearance of [company] (company buildings, branch offices)	.419	.419	.523	.450	.404	.499	.496	.430	.519	.476	.470	.432	.489	.507
20. [company] is a very well managed company	.369	.355	.499	.576	.458	.576	.604	.484	.566	.529	.585	.469	.570	.574
21. [company] is an economically stable company	.269	.248	.405	.568	.405	.484	.515	.402	.496	.418	.472	.375	.502	.463
22. I assess the business risk for [company] as modest compared to its competitors	.278	.263	.344	.465	.344	.408	.423	.339	.409	.338	.395	.324	.416	.408
23. I think that [company] has growth potential	.268	.242	.397	.479	.348	.449	.466	.379	.451	.350	.416	.355	.421	.411
24. [company] has a clear vision about the future of the company	.321	.320	.452	.509	.411	.558	.532	.393	.505	.469	.527	.408	.475	.495
25. I have the feeling that [company] is not only concerned about the profit	.381	.292	.422	.212	.138	.320	.273	.377	.306	.337	.315	.425	.357	.396
26. [company] behaves in a socially conscious way	.416	.398	.556	.383	.293	.494	.474	.475	.459	.476	.496	.543	.552	.515
27. [company] is concerned about the preservation of the environment	.371	.313	.464	.257	.174	.401	.338	.402	.344	.357	.363	.434	.416	.432

All coefficients are highly significant ( $p < 0.001$ )

Table 3: Correlations (Part II)

Item	It. 15	It. 16	It. 17	It. 18	It. 19	It. 20	It. 21	It. 22	It. 23	It. 24	It. 25	It. 26	It. 27
15. I have the impression that [company] has a fair attitude towards competitors	1.000	.426	.385	.251	.406	.435	.363	.322	.356	.410	.407	.491	.415
16. In my opinion [company] tends to be an innovator, rather than an imitator with respect to [automotive engineering / financial services / aviation / power supply]		1.000	.522	.282	.477	.534	.483	.421	.442	.512	.292	.427	.352
17. In my opinion [company] is successful in attracting high-quality employees			1.000	.335	.501	.582	.462	.406	.417	.575	.170	.402	.299
18. I could see myself working at [company]				1.000	.356	.294	.242	.215	.224	.294	.176	.259	.256
19. I like the physical appearance of [company] (company buildings, branch offices)					1.000	.503	.417	.374	.360	.494	.267	.425	.341
20. [company] is a very well managed company						1.000	.572	.457	.492	.607	.270	.454	.349
21. [company] is an economically stable company							1.000	.540	.546	.564	.180	.409	.302
22. I assess the business risk for [company] as modest compared to its competitors								1.000	.436	.468	.221	.366	.274
23. I think that [company] has growth potential									1.000	.499	.218	.382	.324
24. [company] has a clear vision about the future of the company										1.000	.234	.427	.361
25. I have the feeling that [company] is not only concerned about the profit											1.000	.428	.423
26. [company] behaves in a socially conscious way												1.000	.542
27. [company] is concerned about the preservation of the environment													1.000
All coefficients are highly significant ( $p < 0.001$ )													

#### 4.5 CORRELATION ANALYSIS

One way to proceed would have been to construct an index for each of the categories mentioned in section 4.2, e.g., by estimating a MIMIC model. Since MIMIC models are linear models, high correlations between variables pose a potential threat.

Bravais-Pearson coefficients for all pairs of variables are shown in *Table 2* and *Table 3*, where we integrated not only the 21 independent items, but also six endogenous items, to measure sympathy and competence. We return to them in section 4.6.

The variance inflation factors (VIF) given in *Table 4* [in parentheses] show values between 1.230 und 2.815 and are far below the common threshold  $10^{72}$ . But we must consider that correlations between (formative) indicators forming different constructs should be as low as possible. For this reason we applied a principal

<sup>72</sup> See Reinartz et al. (2003), p. 18.



Table 4: Results of the Principal Component Analysis

Item {Variance inflation factor (VIF) in parenthesis}	Factor			
	1	2	3	4
Customer concerns are held in high regards at [company] {2.258}	<b>.760</b>			
The products / services offered by [company] are of high quality {2.725}	<b>.733</b>	.387		
The services [company] offers are good {2.541}	<b>.732</b>	.326		
[company] seems to be a reliable partner for customers {2.547}	<b>.729</b>	.305		
I regard [company] as a trustworthy company {2.815}	<b>.706</b>	.283	.318	
I have a lot of respect for [company]{2.536}	<b>.650</b>	.275	.346	
I think that [company]'s products / services offer good value for money {1.940}	<b>.632</b>		.371	
In my opinion [company] tends to be an innovator, rather than an imitator with respect to [automotive engineering / financial services / aviation / power supply]{1.940}	<b>.506</b>	.449		
[company] is an economically stable company {2.078}	.306	<b>.757</b>		
I assess the business risk for [company] as modest compared to its competitors {1.593}		<b>.720</b>		
I think that [company] has growth potential {1.686}		<b>.718</b>		
[company] has a clear vision about the future of the company {2.155}	.354	<b>.649</b>		.259
[company] is a very well managed company {2.356}	.522	<b>.556</b>		
I have the feeling that [company] is not only concerned about the profit {1.464}			<b>.764</b>	
[company] is concerned about the preservation of the environment {1.624}			<b>.733</b>	
[company] behaves in a socially conscious way {1.987}	.351	.303	<b>.622</b>	
I have the impression that [company] is forthright in giving information to the public {2.136}	.585		<b>.511</b>	
I have the impression that [company] has a fair attitude towards competitors {1.777}	.475		<b>.505</b>	
I could see myself working at [company]{1.230}				<b>.887</b>
I like the physical appearance of [company] (company buildings, branch offices) {1.764}	.452	.324		<b>.450</b>
In my opinion [company] is successful in attracting high-quality employees {2.037}	.464	.493		<b>.403</b>
Variance explained	26.2%	17.5%	13.1%	7.1%

Database: Complete sample (n = 3,296). Extraction method: Principal component analysis.  
 Rotation method: Varimax. Loadings < 0.25 suppressed.

component analysis to “bundle” correlated items to possible index constructs. Principal component analysis on the complete data set revealed four factors with an eigenvalue > 1, which explain 63.95% of the original information<sup>73</sup>.

Factor 1 contains attributes which denote premium supplier, among others quality, service and customer orientation. For reasons of simplicity, we name this factor quality. Factor 2 contains many attributes that are predominant in *Fortune* and *ManagerMagazin* rankings. These attributes are strongly tied to the performance

<sup>73</sup> Factor structures remain stable, even when using other rotation algorithms. Calculating reliability indicators would require reflective items, so we omitted to state *Cronbach's*  $\alpha$ .

of the company (or the company's stocks, if listed), so we name this factor "performance". Factor 3 shows attributes that illustrate the interaction with the different stakeholder groups and may well be described with the name "responsibility". Factor 4 is named "attractiveness", although the only major loading is shown by the attribute "I could see myself working at ...". The factor should not be removed because its eigenvalue is considerably above 1.

#### 4.6 MODEL BUILDING AND PARAMETER ESTIMATION

In this paper reputation was conceptualized as an attitudinal construct. Therefore, it can be split into affective and cognitive components. Cognitive procedures are often described as information-processing tasks, i.e., procedures through which an individual recognizes itself and its environment<sup>74</sup>. Here, we consider information selection, perception and evaluation, learning and commemoration, as well as building preferences and decision-making, as cognitively dominated. In the context of corporate reputation in the cognitive section, we are seeking the stakeholders' subjective knowledge and/or perceptions and a (at least intended) rational appraisal of company attributes. Because there is no literature on managerial competence, we do not have substantial knowledge on this competence. Thus, we have to rely on face validity when operationalizing that component. Using items referring to the performance of a company, to its ability to do business globally, and to its reputation as a top-competitor in its market, it seems plausible to denote that component as the amount of competence that stakeholders assign to a company.

Besides rationally ratable aspects such as quality and performance, we extracted several constructs from the expert interviews and the focus groups, which were more emotionally dominated. These constructs are connected with a sort of personal appreciation of how a company is and what it does. We tend to assign these affective components<sup>75</sup>, often described as feelings and sentiments, to a construct called "sympathy". As opposed to the competence construct, there are a lot of references on the affective component to be found in literature on brand management and on brand equity. We refer to the *Brand Potential Index (BPI®)* of *GfK Market Research*<sup>76</sup> and operationalize the latent variables sympathy using three items: Besides a simple liking of a company, we want to measure how strongly a respondent identifies himself with a company and how big his regret would be if the company no longer existed. The validity and reliability of these items have been proven by confirmatory factor analysis. The results may be found in the given references.

Our confirmatory factor analysis shows that the six reflective indicators can be assigned to the rational and emotional dimensions of reputation in the desired manner. Single-factor principal component analyses show percentages of variance explained of 67% in exploration as well as in validation sample. Factor reliabilities

<sup>74</sup> See *Kroeber-Riel/Weinberg* (2003), pp. 225–367.

<sup>75</sup> See *Kroeber-Riel/Weinberg* (2003), pp. 53–224, esp. p. 100.

<sup>76</sup> See *Hupp* (2000), pp. 45–46; *Grimm et al.* (2000), p. 9.

and average variance extracted (AVE<sup>77</sup>) shown in *Table 5* prove to be acceptable, at least in terms of usual goodness-of-fit requirements<sup>78</sup>. A final test using the *Fornell and Larcker* criterion<sup>79</sup> proves the discriminant validity of both dimensions of corporate reputation ( $p < 0.01$ ). That means, sympathy and competence are definitely distinctive components.

Now that the operationalization of the endogenous variables is done, we examine the explaining, exogenous variables.

*Table 5: Operationalization of “Sympathy” and “Competence”*

Item	Standardized path coefficients in the exploration sample (validation sample in parenthesis)	
	Sympathy	Competence
[company] is a company I can identify with better than with other companies.	0.861 (0.815)	/
[company] is a company I would regret more if it didn't exist any more than I would with other companies	0.700 (0.788)	
I regard [company] as a likeable company	0.578 (0.577)	
[company] is a top competitor in its market	/	0.818 (0.785)
As far as I know [company] is recognized world-wide		0.704 (0.615)
I believe that [company] performs at a premium level		0.689 (0.662)
Average Variance Extracted (AVE)	52.18% (53.94%)	54.65% (47.76)
Factor Reliability	0.7613 (0.7747)	0.7823 (0.7307)
All coefficients are highly significant ( $p < 0.01$ )		

Using MIMIC models, we successively constructed indices for quality, performance, responsibility, and attractiveness. To ensure external validity<sup>80</sup> we analyzed the path coefficients between the indices and the endogenous variables of corporate reputation, i.e., competence and sympathy as operationalized in *Table 5*: All of these coefficients were significant at a level of  $\alpha = 0.001$ , and they showed values above 0.75 in exploration and in the validation sample. Hence, there is no suggestion that indicators were wrongly assigned or that there were other failures in the procedure chosen.

77 See, e.g., *Homburg/Baumgartner* (1998), p. 361.

78 See, e.g., *Bagozzi/Baumgartner* (1994), p. 403; *Balderjahn* (1986), p. 118.

79 See *Fornell/Larcker* (1981).

80 *Diamantopoulos/Winklhofer* (2001), pp. 272–274, suggest integrating reflective indicators of the key constructs, the more so as path coefficients of the formative indicators, required to calculate the indices, are not affected by doing so.

Table 6: Index Construction Using MIMIC Models

Item	Standardized regression coefficients in the MIMIC model			
	Qual.	Perf.	Resp.	Attr.
The products / services offered by ... are of high quality	.265			
In my opinion ... tends to be an innovator, rather than an imitator with respect to [automotive engineering / mobile communications]	.213			
I have a lot of respect for ...	.202			
I regard ... as a trustworthy company	.175			
The services ... offers are good	.130			
... seems to be a reliable partner for customers	.122			
Customer concerns are held in high regards at ...	.061			
I think that ...'s products / services offer good value for money	.038 <sup>81</sup>			
... is a very well managed company		.393		
... has a clear vision about the future of the company		.197		
... is an economically stable company		.172		
I think that ... has growth potential		.139		
I assess the business risk for ... as modest compared to its competitors		.135		
... behaves in a socially conscious way			.331	
I have the impression that ... is forthright in giving information to the public			.291	
I have the impression that ... has a fair attitude towards competitors			.229	
... is concerned about the preservation of the environment			.123	
I have the feeling that ... is not only concerned about the profit			.085	
I like the physical appearance of ... (company buildings, branch offices)				.458
In my opinion ... is successful in attracting high-quality employees				.433
I could see myself working at....				.150
Squared Multiple Correlation				
in the exploration sample	.982	.710	.697	.719
in the validation sample	(.974)	(.706)	(.660)	(.722)
Basis: Exploration sample				
All coefficients except for the marked one are highly significant ( $p < 0.01$ )				

With the indices constructed according to *Table 6* as independent variables, multiple linear regression analysis was done to explain sympathy and competence as dependent variables. As shown in *Table 7*, standardized regression coefficients are highly significant in exploration and in the validation sample. Moreover, they are of similar magnitude, so we may assume very stable results. Goodness-of-fit measures show satisfying values for sympathy, and even good values for competence.

In both subsamples, responsibility, attractiveness, and quality show a positive influence on sympathy, but performance has a negative influence. These results indicate that focusing on performance and profit aspects within corporate communications causes a loss of sympathy. Intuitively, we may regard a profit-oriented company, represented by a callous CEO, as a top company, but we most likely will not feel any emotional closeness towards that firm.

81  $p = 0.043$ .

On the other hand, competence is driven by quality, performance, and attractiveness, but it is dampened by responsibility. That means that being a good corporate citizen, taking over social responsibility and taking care of environmental issues makes the company loved but not necessarily a target for investors.

Table 7: Results of Multiple Linear Regression Analysis

Independent variable (Index)	Standardized regression coefficients Dependent variable	
	Sympathy	Competence
Quality	0.257 (0.276)	0.622 (0.583)
Performance	-0.114 (-0.083)	0.268 (0.283)
Responsibility	0.345 (0.333)	-0.114 (-0.149)
Attractiveness	0.303 (0.266)	0.102 (0.137)
Adjusted R <sup>2</sup>	0.512 (0.500)	0.712 (0.673)
Basis: Exploration sample, validation sample in parenthesis. All coefficients are highly significant (p < 0.01)		

## 5 DISCUSSION AND OUTLOOK

This paper’s main objective was to develop a theoretically and empirically well-founded concept for measuring corporate reputation. For the endogenous side of our model is concerned, we may refer to our conceptualization of corporate reputation as an attitude construct that implies splitting it into affective and cognitive components. For the cognitive component, we tried to find indicators that describe rational outcomes of high reputation. Performance, global reach, and the perception as one of the top competitors are such outcomes, so the naming of the construct as “competence” seems plausible. For the affective component, we could refer to brand management literature and successfully identify items to assess the emotions that respondents have towards a company.

Until now, managers could measure corporate reputation by calculating an index number from these six endogenous items. But they still would not know how to manage reputation because key drivers are not yet identified. Building and creating the parameters for a structural model fills this gap.

The exogenous side of our model covers all aspects of corporate reputation that have been published up to now, plus some additional categories that have

emerged from the qualitative study. Based on the MIMIC models we parameterized, we may assume suitable operationalization of these categories. The construction of four indices (quality, performance, responsibility, and attractiveness), which was suggested by the principal component analysis, turned out to be viable. The results of the multiple linear regression analysis clearly show that we were also successful in *explaining* reputation.

Summarizing, we emphasize the fact that we made good experiences treating corporate reputation as a two-dimensional construct. That raises the question of why we achieved different results from those in the American literature. The reader may find a more thorough discussion given by *Schwaiger/Cannon*<sup>82</sup>. In their study the authors show that a principal component analysis applied on the US subsample according to the Kaiser-criterion<sup>83</sup> extracts only one factor, if only these items (described in the present paper) are used that best fit the *Fortune* and the *Fombrun* categories respectively. Since neither *Fortune* nor *Fombrun* disclosed their questionnaire, we can only guess whether this result could be reproduced using their data. Many aspects indicate that appropriately considering affective components of corporate reputation as well makes one-dimensionality unsustainable.

Using the 21 items described in *Table 4* and applying a factor analysis on the US-subsample shows two principal components with eigenvalues > 1 (before rotation). If these factors are rotated to facilitate interpretation, we find a widely cognitively and another, widely affectively dominated principal component. Therefore, we assume that existing measurement concepts in the field of corporate reputation do not cover the full spectrum of the issue and lack the indicators mainly representing affective components.

Because corporate reputation is based on perceptions far more than on real knowledge, managing corporate reputation is not only, but primarily, a task of corporate communications. To strengthen this assumption, we look at some descriptive results of our study: The best score with respect to the item “[company] is concerned about the preservation of the environment” was achieved by E.ON, which runs a considerable number of (nuclear and conventional) power plants. On the other hand, E.ON received the worst grades among all the sample companies when respondents were asked about business risks (“I assess the business risk for [company] as modest compared to its competitors”), even though power suppliers in general do not depend on economic risks as much as, e.g., airlines and car manufacturers. We note that we interviewed people with at least a bachelor’s degree, so a general lack of knowledge can be excluded in this context.

For practical applications we conclude from our results that reputation should be measured and visualized by using a portfolio chart that shows the two dimensions of sympathy and competence. Analyzing the company’s position within the strategic group enables the communications manager to derive valuable hints on the configuration of corporate communications. The use of our 21 explanatory items will allow the manager to give a substantial briefing to his advertising agency. For

82 See *Schwaiger/Cannon* (2003).

83 I.e., extract all factors with eigenvalue > 1.

example, if a company shows low sympathy values, he might establish social and cultural sponsoring programs that demonstrate the firm's social responsibility. Or he could initiate a communications campaign based on social responsibility similar to that of RWE, a German power supplier, with its 60-second TV-spot "Imagine". Low competence scores might be improved by focusing on economic power, for example, as done by DaimlerChrysler's advertising spot showing all their many cars driving on America's Great Salt Lake.

But because performance has a negative impact on sympathy, and responsibility has a negative impact on competence, managing corporate reputation is somewhat problematic. As there is almost no (empirical) research on the outcomes of corporate reputation, we still do not know what effects may be caused by high or low sympathy or competence. At present, because there is a severe lack of control instruments in this area, we recommend using the corporate reputation grid as a tracking tool for corporate communications in general and for public relations and sponsoring in particular. The shift in sympathy and competence scores is a good indicator for the effects of integrated communications programs, not just for single arrangements like an advertising campaign.

Nevertheless, there is need for further research, which should pick up three issues:

- First of all, it would be interesting to know whether the stability of our results was (positively) influenced by the fact that we evaluated only renowned companies. A replication of the parameter estimation using data from smaller, less noted, and less renowned companies could answer this question.
- Second, different stakeholder groups should be analyzed to check whether, say, financial analysts or politicians use different categories when thinking about corporate reputation. If not, we should then compare the impact of the items on sympathy and competence across different recipient groups.
- Third, practitioners want to know what benefits accrue from a strong reputation. As the advantages claimed from papers listed in section 2.2 were mostly based on theoretical framework, they suffer from a lack of empirical analysis. Hence, further empirical research on the impact of strong reputation is necessary.

As soon as we have evidence on the effects of competence and sympathy on stakeholders' decisions and behavior, we may provide a solution for the trade-off between these endogenous constructs.

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