

# Corporate Reputation and Performance in Germany

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## ABSTRACT

*This paper explores the reputations of 63 German firms over the period 1988 to 1998. It considers what factors may affect firm reputations and how and why reputations change. The reputation data come from the survey by Manager Magazin that is similar to the one compiled annually by Fortune magazine in the USA. The results show that firm reputations fluctuate reflecting:*

- *firm efforts to improve their reputation, and*
- *critical news reports and specific negative incidents diminishing firm reputation.*

*While industry effects limit fluctuations in corporate reputation, the data also demonstrate firm level differences. Detailed analysis of the relationship between reputation and a measure of financial performance suggests that, in these data, prior financial performance has a strong effect on subsequent reputation. In turn, reputation appears more weakly related to a measure of subsequent financial performance. Finally, larger firm size and more concentrated ownership also lead managers to ascribe better reputations to German firms.*

## INTRODUCTION

Traditionally, top management in Germany considered corporate reputation to be something of minor importance. They were much more focused on objective measures of financial performance. To the extent they considered reputation at all,

they related it to how they personally might be assessed in markets that compared them with other corporate executives. Many simply did not appreciate how a firm's reputation was something important with independent value. Recently, however, German managers have come to recognize corporate reputation as something that is distinct, significant and important even though it remains an intangible asset.

What has brought about this change? Involvement in global markets has probably had an important impact. International competition can suddenly alter a firm's strategic position. An analysis of a firm's strengths and weaknesses to explain the change in position often requires consideration of a broad range of variables. As international competitors can usually easily reproduce tangible products, it is often intangible company-specific, difficult-to-imitate resources that become important. These may include intellectual property rights, unique competence and most likely corporate reputation (Hall, 1992). Such unique factors constitute a base from which firms can build unique and sustainable competitive advantage.

Another influence heightening the importance of corporate reputation may be changes currently ongoing in the German corporate governance system. Germany's traditional corporate governance system is two-tiered with a clear division between

management and stakeholder control. The system has been relatively ineffective in developing uniqueness in German firms. Critics point out that, at the stakeholder level, there are many interlocked directorships with representatives from the same large corporations consistently advocating the same perspectives. In addition, banks and insurance companies are strongly represented on supervisory boards and they too focus on a narrow set of assessment criteria (Conyon and Schwalbach, 2000).

A further influence has been major news stories that have discussed German corporate practices critically and damaged the reputations of individual firms. Some examples would include media discussions of Deutsche Bank's involvement in the Schneider construction bankruptcy and the failure of Daimler-Benz's diversification strategy along with the mechanical problems associated with its A-Class and Smart cars. Other examples would include reports of production interference at Hoechst, the 'off-again, on-again' takeover involving Krupp-Hoesch and Thyssen, discussions of the near-bankruptcy stemming from financial speculation at Metallgesellschaft, and Volkswagen's Lopez affair. In all these cases, the barrage of negative publicity has served to persuade many members of top management that corporate reputation is a high-priority issue that can no longer be ignored.

This paper identifies patterns in the way that reputations of Germany's largest companies have evolved over the last decade. How their reputations relate to their financial performance is also explored. The data used is from *Manager Magazin's* survey of Germany's largest manufacturing and service firms. This survey is equivalent to *Fortune's* survey of the most admired US companies. The next section describes this database and the methodology used. Major findings and the conclusions of the study are then presented.

## METHODS

### Data

#### *Corporate Reputation*

Since 1987 Germany's *Manager Magazin* has conducted bi-annual surveys that assess corporate image. The methodology changed slightly in 1994 and also in 1998 but in its essentials, it follows *Fortune's* approach. Specifically, *Manager Magazin* asks some 2,000 senior managers to rate the overall reputation of the largest 100 German companies. These executives are also asked to rate the largest 20 companies in their particular industry on five attributes:

- management quality
- innovativeness
- communication ability
- environmental orientation
- financial and economic stability.

Our measure of reputation is the overall rating executives gave the firms for the years 1988, 1990, 1992, 1994, 1996 and 1998.

#### *Overall Financial Performance*

*Manager Magazin* also develops an overall 'financial performance score' that combines together accounting and market measures of financial performance. These firm level scores are weighted averages that are then standardized to facilitate inter-firm comparisons. A firm's 'accounting performance score' is a weighted sum of the returns on firm capital and cash flow (return weight = .67) combined with measures of the firm's equity capital and liquidity ratio (security weight = .16) and growth in the firm's total assets and sales (growth weight = .16). A firm's 'market performance score' is a weighted sum of firm stock returns relative to other firm stock returns (return weight = .33), the variance in firm stock returns relative to other firm stock returns (variance weight = .50) and the growth in firm stock value relative to the

growth in other firm stock values (growth weight = .17). The overall 'financial performance score' is the sum of these accounting and market performance measures. This overall score is used to explore links between financial performance and executive's assessments of firm reputation.

Table 1 presents descriptive statistics for the variables central to our analysis. The numbers of sampled companies varies depending on the selected variable. The overall reputation scores vary, though the variance falls slightly over time. Size also varies, with Siemens AG the largest firm in terms of employees, and Daimler-Benz AG the largest in terms of sales. Table 1 also shows descriptive statistics for the overall financial performance measure.

### Cluster Analysis

Cluster analysis was used to study how firm reputation levels group and then persist over time. Cluster analysis is a set of methods for building groups (clusters) from multivariate data. The aim is to identify groups with homogeneous properties. Groups or clusters are made as homogeneous as possible while differences between them are made as large as possible. Cluster

analysis proceeds in two steps: a choice of a proximity measure and a choice of group-building algorithm (Everitt, 1993).

An agglomerative hierarchical clustering procedure that produces a series of data partitions was adopted. The first partition consists of  $n$  single-member groups and the last partition consists of a single group with all  $n$  members. Differences between the alternative procedures arise as they use different criteria to define homogenous groups. Ward's hierarchical clustering procedure was selected. This method forms data partitions in ways that minimize the information loss associated with each grouping. Information loss is defined in terms of an error sum-of-squares criterion (Everitt, 1993). The cluster analysis was performed with the computer package CLUSTAN. The null hypothesis that a partition of  $n$  cluster types is better than some other partition of  $n'$  cluster types was evaluated by a significance test (F-test) at the 5 per cent level. The test led to a partition of three clusters that grouped firms according to whether they had high, medium or low reputation levels. The sample for the cluster analysis consists of the 63 firms for which the

**Table 1: Descriptive statistics of major variables**

<i>Variable</i>	<i>Year</i>	<i>No. of firms</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Standard deviation</i>
Reputation	1988	71	396	656	486.3	57.37
Reputation	1990	75	413	647	502.5	52.25
Reputation	1992	81	385	612	494.8	47.42
Reputation	1994	86	396	603	493.2	38.37
Reputation	1996	100	333	621	487.2	46.67
Reputation	1998	63	514	851	665.1	73.26
Sales (million DM)	1995	41	4,414	103,549	33,299	25,758.1
Employees	1995	40	795	373,000	82,614	79,750.4
Financial Performance	1996	42	-151.50	81.55	20.24	41.46

authors had reputation data from 1988 through 1998.

## RESULTS AND DISCUSSION

### Reputations vary over time

Table 2 presents the cluster analysis results. In any given year, corporate reputation level is strongly related to its previous level. Specifically, over the total period 1988–98, many firms either maintained their reputation grouping at the same level, or deviated once to return to the same cluster two years later at the next assessment (26 firms, or 41 per cent of the sample).

Yet the data also show wide variation in German firm reputations. During the period studied, for example, only four firms remained consistently in the cluster with the highest reputation. These firms are BMW, Bosch, Daimler-Benz and Siemens. If one focuses on the period 1994–98, the companies consistently in the highest reputation cluster increase to five (about 8 per cent of the sample). Very few firms have been able to retain the highest reputation throughout the 1988–98 decade.

At the other extreme, seven firms remained consistently in the cluster with the poorest reputation. These included DG Bank, Colonia Versicherung, Ruhrkohle, Metallgesellschaft, Philip Morris, Reemtsma and Klöckner & Co. An additional seven firms either clustered in this poor reputation group or deviated from it only once and then returned (in total, about 22 per cent of the sample). This implies it may be easier to maintain a consistently negative rather than a consistently positive firm reputation.

Reputation varies a great deal over the decade. While 24 per cent of the firms fluctuated between the middle and highest reputation clusters, 30 per cent of the firms fluctuated between the middle and lowest reputation clusters.

Media visibility may have been the driving force behind many temporary move-

ments in reputation status. Between 1988 and 1994, for example, the largest German bank, Deutsche Bank AG, was in the highest reputation cluster. In 1994, however, news reports discussed its involvement in the Schneider bankruptcy and the bank lost reputational standing. Similarly, the German subsidiary of the Shell Group, Deutsche Shell AG, consistently improved its reputation from the lowest level in 1988 to the highest level in 1994. Then news reports discussing Shell's Brent Spar problems and German consumers' reactions may have precipitated the fall in Deutsche Shell's reputation that placed it in the lowest reputational cluster in 1996. In contrast to Deutsche Bank which still has not regained its former stellar reputation, the steps Shell took to remedy its reputational decline seem to have had a significant effect — and Shell's reputation has clearly recovered.

Three companies (Aldi, Aral and Mannesmann) stand out for consistently improving their reputations over the period 1988–1996. They were at the lowest level in 1988 but reached the highest level in 1994, a position they then retained in 1996.

The explanation may be a broad recognition of the success achieved with their corporate strategies. The discounter Aldi improved the quality of its product range noticeably, yet maintained its low price strategy. Aral builds and runs consumer-friendly gas stations that it has combined with small grocery stores that emphasize consumer convenience. Mannesmann diversified itself away from steel products to become an important player in telecommunications. Despite the business success of these firms, all three companies failed to retain their high reputation beyond 1996.

### Reputations vary by industry

The data suggest some industries have better reputations than others, and the firms that operate within these industries also enjoy better reputations. It is suspected

**Table 2: Reputation Rating and Clusters among German Firms 1988–98**

<i>Name of companies Sorted by industries</i>	<i>Overall reputation rating</i>						<i>Cluster number</i>					
	1988	1990	1992	1994	1996	1998	1988	1990	1992	1994	1996	1998
<b>Banking</b>												
Bayerische Hypothekenbank	516	533	512	515	474	658	2	2	2	3	2	2
Bayerische Vereinsbank	511	525	509	523	490	685	2	2	2	3	2	1
Commerzbank	537	534	533	532	502	687	2	2	2	3	2	2
Deutsche Bank	608	594	595	566	478	699	3	3	3	3	2	2
DG Bank	436	442	385	419	440	574	1	1	1	1	1	1
Dresdner Bank	551	552	551	538	504	687	2	2	3	3	2	2
Mean	<b>527</b>	<b>530</b>	<b>514</b>	<b>516</b>	<b>481</b>	<b>665</b>						
<b>Insurance</b>												
Allianz	566	533	515	506	497	697	2	2	2	3	2	2
Colonia Versicherung	464	451	435	447	430	554	1	1	1	1	1	1
Gerling	398	415	446	469	459	617	1	1	1	2	1	1
Mnchner Rückversicherung	453	453	461	460	455	627	1	1	1	2	1	1
R + V Versicherungen	448	457	451	469	447	591	1	1	1	2	1	1
Mean	<b>466</b>	<b>462</b>	<b>462</b>	<b>470</b>	<b>458</b>	<b>617</b>						
<b>Chemicals</b>												
BASF	554	550	542	500	524	734	2	2	3	3	3	2
Bayer	562	557	559	518	532	741	2	2	3	3	3	2
Deutsche Babcock	455	457	435	462	463	577	1	1	1	2	1	1
Linde	495	518	492	508	497	653	2	2	2	3	2	2
MAN	488	536	511	506	512	660	2	2	2	3	2	2
Thyssen	438	513	479	457	498	672	1	2	1	2	2	2
Mean	<b>469</b>	<b>506</b>	<b>479</b>	<b>483</b>	<b>493</b>	<b>641</b>						
<b>Motor vehicles and parts</b>												
Audi	566	576	583	542	591	834	2	3	3	3	3	3
BMW	624	647	610	603	621	851	3	3	3	3	3	3
Bosch	591	596	549	547	557	762	3	3	3	3	3	3
Continental	542	533	512	492	492	674	2	2	2	2	2	2
Ford	464	530	503	473	515	626	1	2	2	2	2	1
Opel	492	554	546	529	542	640	2	2	3	3	3	1
Volkswagen	518	578	578	471	547	797	2	3	3	2	3	3
Mean	<b>542</b>	<b>573</b>	<b>554</b>	<b>522</b>	<b>552</b>	<b>741</b>						
<b>Computers</b>												
IBM	594	580	547	489	537	732	3	3	3	2	3	2
<b>Food and general merchandisers</b>												
Aldi	466	521	518	538	528	689	1	2	2	3	3	2
Edeka	433	441	459	485	479	615	1	1	1	2	2	1
Karstadt	455	509	510	539	508	649	1	2	2	3	2	2
Kaufhof	444	480	517	505	486	623	1	1	2	3	2	1
Otto Versand	493	515	523	533	533	727	2	2	2	3	3	2
Quelle-Schickedanz	503	502	504	519	509	668	2	1	2	3	2	2
Mean	<b>466</b>	<b>495</b>	<b>505</b>	<b>520</b>	<b>507</b>	<b>662</b>						

**Table 2: Continued**

<i>Name of companies Sorted by industries</i>	<i>Overall reputation rating</i>						<i>Cluster number</i>					
	<i>1988</i>	<i>1990</i>	<i>1992</i>	<i>1994</i>	<i>1996</i>	<i>1998</i>	<i>1988</i>	<i>1990</i>	<i>1992</i>	<i>1994</i>	<i>1996</i>	<i>1998</i>
<b>Tobacco</b>												
Philip Morris	449	448	440	440	442	567	1	1	1	1	1	1
Reemtsma	412	441	414	414	421	548	1	1	1	1	1	1
Mean	<b>431</b>	<b>445</b>	<b>427</b>	<b>427</b>	<b>432</b>	<b>558</b>						
<b>Media</b>												
Bertelsmann	512	546	530	538	531	738	2	2	2	3	3	2
<b>Airlines</b>												
Deutsche Lufthansa	583	600	524	491	561	777	3	3	2	2	3	3
<b>Construction</b>												
Hochtief	420	491	512	514	474	612	1	1	2	3	2	1
Philipp Holzmann	419	498	515	520	490	598	1	1	2	3	2	1
Mean	<b>420</b>	<b>495</b>	<b>514</b>	<b>517</b>	<b>482</b>	<b>605</b>						
<b>Wholesalers</b>												
Haniel	449	431	495	492	466	610	1	1	2	2	1	1
Klöckner & Co	425	413	456	424	452	563	1	1	1	1	1	1
Metallgesellschaft	470	479	462	439	383	514	1	1	1	1	1	1
Toepfer International	413	465	443	463	444	568	1	1	1	2	1	1
Mean	<b>439</b>	<b>447</b>	<b>464</b>	<b>455</b>	<b>436</b>	<b>564</b>						
<b>Conglomerates</b>												
Daimler Benz	656	624	612	513	537	839	3	3	3	3	3	3
Krupp-Hoesch	466	448	475	435	474	627	1	1	1	1	2	1
Mannesmann	473	524	503	502	529	717	1	2	2	3	3	2
Preussag	439	471	484	482	486	662	1	1	1	2	2	2
Viag	438	466	450	468	478	638	1	1	1	2	2	1
RWE	472	487	511	508	503	689	1	1	2	3	2	2
Veba	470	520	504	505	500	717	1	2	2	3	2	2
Mean	<b>488</b>	<b>506</b>	<b>506</b>	<b>488</b>	<b>501</b>	<b>698</b>						

that these industry effects probably differ across nations and are reflective of national cultures. As a particular country places high emphasis on a specific industry, for example, people may associate it with high status and even a nation's prestige. Firms in a preferred industry are likely to enjoy a higher reputation and particularly in the home country (Porter, 1990; Cordeiro and Schwalbach, 2000).

In Germany, the most positive reputations are associated with firms in the automobile industry. The firms enjoying the highest reputations include Audi, BMW, Bosch, Daimler-Benz, Volkswagen and Opel. In contrast, while Ford and Continental each constitute a significant industry presence, they have only medium level reputations. Despite the general industry effect, some individual firm effects are



apparent in the data. For instance, after Opel, the German subsidiary of General Motors experienced severe product quality problems in the mid-1990s, its reputation status in 1998 had dropped from the highest to the lowest level.

There are also negative reputation effects that seem to be linked to particular industries. In Germany, these negative reputation effects are associated particularly with the insurance and the energy industries along with construction and consumer goods industries. The data also suggest there may be a negative halo that surrounds wholesalers and foreign-based electrical equipment firms.

The data further suggest that some industry reputations may be changing in Germany. Specifically, firms in the chemical, energy and retail sectors have all enjoyed a generally improved reputation over the period 1988–1998. In all, we identified 28 firms (40 per cent of the sample) that have been successful in improving their corporate reputation over the eight-year period.

### The reputation/financial performance relationship is generally positive

To emphasize the importance of reputation, researchers often seek to establish links with financial performance. Although empirical evidence generally supports a positive relationship (Fombrun and Shanley, 1990; Roberts and Dowling, 1997), the examples of extreme cases of high and low reputation often suggest ambiguity in this relationship. Further, studies have shown that company-specific factors can influence reputation. For example, accounting and market-based measures of company risk are negatively associated with reputation (Fombrun and Shanley, 1990 and Srivastava et al., 1997). Fombrun and Shanley (1990) also found product advertising/quality (see also Capraro and Srivastava, 1997) and institutional ownership positively influence corporate reputation, while diversifi-

cation, media visibility and dividend yield tend to have negative effects.

The reputation/financial performance relationship can be examined by testing alternative hypotheses:

- Prior reputation affects future financial performance (the reputation effect), and
- Prior financial performance affects future firm reputation (the performance effect).

The analyses explore the relative importance of these two effects. While cross-sectional estimates reveal whether the parameters remain constant over time, the pooled regressions provide more efficient parameter estimates.

Tables 3–6 describe the cross-sectional and pooled (combined cross-sectional and time-series) regression models. Comparing the pooled regressions in Tables 4 and 6, the statistics indicate that the performance effect (.65) is stronger than the reputation effect (.17). From these analyses, both

**Table 3: Impact of Financial Performance on Reputation: Cross Sectional Regression Models**

	<i>Dependent Variable Reputation</i>		
Year	1994	1996	1998
Intercept	494.49★ (74.96)	493.19★ (70.06)	658.83★ (43.76)
P <sub>1993</sub>	0.41★ (2.64)		
P <sub>1995</sub>		0.63★ (3.19)	
P <sub>1997</sub>			1.16★ (2.68)
R <sup>2</sup>	0.18	0.24	0.17
N	35	35	35

Note: P stands for financial performance, ★ indicates 5% significance level, *t*-values in parentheses.

**Table 4: Impact of Financial Performance on Reputation: Pooled Regression Models**

<i>Dependent Variable Reputation</i>		
Financial performance		0.65★ (4.29)
Time Dummies	1994	489.57★ (54.53)
	1996	492.99★ (56.48)
	1998	669.95★ (74.19)
R <sup>2</sup>		0.99
N		105

Note: ★ indicates 5% significance level, *t*-values in parentheses.

**Table 5: Impact of Reputation on Financial Performance: Cross-Sectional Regression Models**

<i>Dependent Variable Financial Performance</i>			
Year	1993	1995	1997
Intercept	-72.82 (-0.96)	-93.78 (-1.26)	-43.67 (-0.81)
R <sub>1992</sub>	0.18 (1.23)		
R <sub>1994</sub>		0.22 (1.46)	
R <sub>1996</sub>			0.13 (1.22)
R <sup>2</sup>	0.04	0.06	0.04
N	35	35	35

Note: R stands for reputation, *t*-values in parentheses.

hypotheses are confirmed, suggesting that corporate reputations (as measured by *Manager Magazin*) influence managers' ratings of the future financial performance of German companies. Moreover, the results suggest that financial performance may

**Table 6: Impact of Reputation on Financial Performance: Pooled Regression Models**

<i>Dependent Variable Financial Performance</i>		
Reputation		0.17★ (2.24)
Time Dummies	1993	-68.71 (-1.71)
	1995	-71.56 (-1.83)
	1997	-65.06 (-1.67)
R <sup>2</sup>		0.30
N		105

Note: ★ indicates 5% significance level, *t*-values in parentheses.

also enable reputation building. The cross-sectional results in Tables 3 and 5 suggest statistical support for a one year time lag for the performance effect. They also confirm a consistent but small positive impact of reputation on subsequent financial performance.

### Greater size and concentrated ownership enhances reputation

Finally, the influence of firm size and ownership structure on firm overall reputation was examined. The results are reported in Table 7. The evidence suggests that size as measured by number of employees is strongly associated with positive reputation, consistent with the suggestions of Fombrun (1996). Being larger among already large firms is a factor sufficient in itself to enhance a firm's reputation significantly in Germany. Furthermore, as ownership is more concentrated (as indicated by share of proxy owners) this also influences reputation positively.

### CONCLUSION

An analysis of data from *Manager Magazin* is important because the methods this



**Table 7: The Effects of Size and Ownership Concentration: Cross-Sectional Regression Model**

	<i>Dependent Variable Reputation 1996</i>
Intercept	227.72** (3.70)
Reputation 1994	0.54** (4.41)
Financial performance 1995	0.52** (3.83)
Size (no.of employees)	0.0002** (3.91)
Ownership (proxy owners)	-0.38* (-2.38)
Adj. R <sup>2</sup>	0.649
N	34

Note: \* indicates 5% and \*\* indicates 1% significance levels, *t*-values in parentheses.

magazine uses to assess reputation and to develop an overall financial performance measure are different and clearly independent of one another. Analysis suggests that even though many German firms have relatively stable reputations, the reputations of most fluctuate. Significant fluctuations reflect:

- the concerted efforts by individual firms to improve their reputations, and
- news reports that are critical of a specific firm along with discussions of specific incidents that diminish firm reputations.

The industry context where firms participate seems to provide some protection from reputation fluctuations. Nevertheless, individual firm effects remain important across and within industries.

So far as relationships between variables

are concerned, corporate reputations is positively related to overall financial performance. Financial performance, in turn, has both an immediate and a year- delayed impact on firm reputation. Larger firm size and greater ownership concentration favourably impact the reputations of German firms.

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