Shared Transformational Leadership and Organization Culture as Predictors of a Bank’s Financial Performance

Arno Boevink
Title: Shared Transformational Leadership and Organization Culture as Predictors of a Bank’s Financial Performance

Author: Arno Boevink
Student no.: s0047880

Supervisory committee:
Prof. dr. C.P.M Wilderom
Dr. P.A.T.M. Geurts
Dr. P.T. van den Berg
Shared transformational leadership and organization culture as predictors of a bank’s financial performance

Abstract

Do both shared transformational leadership and organizational culture affect a firm’s bottom line directly? We answer this question with a representative sample of 58 autonomous local banks of a Dutch financial institution; 1509 employees completed a questionnaire on shared transformational leadership and organizational culture, covering five organizational-culture dimensions: external orientation; interdepartmental cooperation; human-resource orientation; empowerment; and improvement orientation. Bank-level financial performance data were available: in the same year and two years later. Results of structural equation modeling, in which we control for time-1 performance, showed that shared transformational leadership at the top increase a bank’s financial performance, while organizational culture does not. Both leadership and culture appear significantly related to perceived firm performance and shared transformational leadership significantly linked to each culture dimension; these results were controlled for common-source bias. We conclude that shared transformational leadership significantly affects a firm’s short-term financial performance while longer time intervals are needed for empirical reports on the possible financial effects of (investing in) organizational culture.

Keywords: Shared Transformational Leadership; Organization Culture; Firm Performance
Shared transformational leadership and organization culture as predictors of a bank’s financial performance

Are both transformational leadership and organizational culture predictive of firm performance? Although performance is the key to the survival of many organizations and many authors assume that transformational leadership and organizational culture contribute to it, few researchers have examined both factors in combination (for empirical examples, see: Koene, Vogelaar, & Soeters, 2002; Ogbonna & Harris, 2000). Our study is inspired by the resource-based theory of the firm, regarding the firm as a collection of productive resources or attributes. Also Hansen & Wernerfelt (1989: 399-409) laid a foundation for this study with their results, showing that “organizational factors explain about twice as much variance in profit rates as economic factors.” They conclude that intangible attributes of a firm (i.e., “…the building of an effective, directed human organization…”) are crucial for its performance. The utility of the resource-based theory has been demonstrated also by Mills, Platts, & Bourne (2003). Exactly what intangible resources - and their content - matter and how they are connected are still unknown. Of the various internal intangible resources that have been put forward by resource-based theorists to explain sustainable firm success, two types can be viewed as most important: “organizational” and “human” resources (Barney & Hesterly, 1996: 133). Several authors argue that leadership (as an example of human capital) and organizational culture (as an example of social/organizational capital/organizational capability) are two different “complex, interconnected resources” that are predictive of organizational success (Hunt, 1997: 688; see also Tomer, 1987, 1999). It was our aim to empirically examine this thesis.

Shared transformational leadership and firm performance

In the leadership literature there is ample evidence of a link between transformational leadership and perceived firm performance (e.g., Agle, Nagarajan, Sonnenfeld, & Srinivasan, 2006; Elenkov, 2002; Lowe, Kroeck, & Sivasubramaniam, 1996). The link between objective firm performance and transformational leadership is less well established. Lowe et al’s meta-analysis (1996) noted a significant link between objective performance and transformational leadership. Their finding is based on 14 empirical studies. While inspecting those studies, it appears that only one is a published field study with objective
firm performance measures (see item # 1 in Table 1); in a Canadian financial institution, Howell & Avolio (1993) found that transformational leadership predicts objective business-unit performance. Especially charisma predicted objective performance. Table 1 provides an overview of all published studies relating transformational leadership to objective firm performance. Because charisma constitutes a large part of transformational leadership (Rowold & Heinitz, 2007), we include in Table 1 studies that link charismatic leadership to objective firm performance. The 2004 meta-analysis of Judge & Piccolo included two additional published empirical studies with objective performance measures (Items # 2 and 3 in Table 1). Beyond these three published studies, we detected 8 more empirical studies on the transformational leadership - objective firm performance link (Items # 4-11 in Table 1).

Out of these 11 studies only 3 show unambiguous evidence of the transformational leadership – objective firm performance link (see Table 1: items #1, 2 and 11). These three studies have in common that they used the MLQ, and in terms of their dependent variable, they used situationally defined and internally used performance indicators that differ greatly from each other. Across these 11 studies, we counted a total of 14 different measures of objective firm performance; mostly in terms of financial firm performance. This variety in utilized firm performance measures is typical to the area (e.g., Bhargava, Dubelaar, & Ramaswami, 1994). Moreover, the amount of evidence in support of a significant link between transformational/charismatic leadership and objective firm performance is not abundant.

In terms of the causal order of both variables, most literature assumes that leadership affects performance (e.g., Koene et al., 2002; Ogbonna & Harris, 2000). Only four of the studies in Table 1 explicitly address the direction of this leadership – objective performance link. Howell & Avolio (1993), for instance, measured leadership first and performance at a later date. Barling, Weber, & Kelloway (1996), using pre- and post-test measures, found that groups in which the leaders had received transformational leadership training performed better then the control groups. Both studies of Waldman and colleagues (2001, 2004) did use multiple firm performance measures over time, just like we did in our current study. Since we took in the current study firm performance measurements at two points in time, we also aim to contribute to the causal-order question. Most literature dealing with this perennial leadership issue is based
<table>
<thead>
<tr>
<th>#</th>
<th>Year</th>
<th>Authors</th>
<th>Measures of objective firm performance</th>
<th>Relevant findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1993</td>
<td>Howell &amp; Avolio</td>
<td>% of goals achieved</td>
<td>Transformational leadership predicts unit performance.</td>
</tr>
<tr>
<td>2</td>
<td>1996</td>
<td>Barling, Weber &amp; Kelloway</td>
<td># of personal loan sales # of credit card sales</td>
<td>Transformational leadership training positively influences both the sales of personal loans and marginally credit card sales.</td>
</tr>
<tr>
<td>4</td>
<td>2001</td>
<td>Waldman, Ramirez, House &amp; Puranam</td>
<td>Profit margin</td>
<td>CEO charisma predicts performance only in conditions of uncertainty and not in conditions of certainty.</td>
</tr>
<tr>
<td>5</td>
<td>2002</td>
<td>Koene, Vogelaar &amp; Soeters</td>
<td>Profit Controllable costs</td>
<td>Charisma correlates with both profit and controllable costs but only in small firms and not in large firms.</td>
</tr>
<tr>
<td>6</td>
<td>2004</td>
<td>Tosi, Misangyi, Waldman &amp; Yammarino</td>
<td>Stock return ROA</td>
<td>Charismatic leadership has a positive relationship with Stock Return in conditions of high uncertainty. No relation is found with ROA.</td>
</tr>
<tr>
<td>7</td>
<td>2004</td>
<td>Waldman, Javidan &amp; Varella</td>
<td>Profit margin ROE Sales growth</td>
<td>Charismatic CEO leadership predicts firm performance in terms of profit margin and ROE. With sales growth no significant relation is found.</td>
</tr>
<tr>
<td>8</td>
<td>2005</td>
<td>Zhu, Chew &amp; Spangler</td>
<td>Sales</td>
<td>Transformational leadership has no significant relationship with sales performance.</td>
</tr>
<tr>
<td>9</td>
<td>2006</td>
<td>Agle, Nagarajan, Sonnenfeld &amp; Srinivasan</td>
<td>Stock return ROA Sales growth Profit margin ROE</td>
<td>CEO charisma is related to past objective performance only in terms of stock return, ROA and sales growth but not for profit margin and ROE. No evidence is found between charisma and subsequent performance,</td>
</tr>
<tr>
<td>10</td>
<td>2006</td>
<td>Ensley, Pearce &amp; Hmieleski</td>
<td>Sales growth Revenue</td>
<td>Transformational leadership has a negative relationship with (new venture) performance, although environmental dynamism has a positive moderating effect.</td>
</tr>
</tbody>
</table>
on perceived performance variables (e.g., Bass, Avolio, Jung, & Berson, 2003; Elenkov, 2002). Hence, there are only few systematic empirical studies of transformational leadership that has shown it to be predictive of objective firm performance.

Based on previous studies we do expect that transformational leadership displayed at the top of a firm positively affects the firm’s performance; transformational leaders at the top of an organization articulate the specific, unique purposes of the firm and its various roles, goals and ambition levels. Hence, transformational leadership has been shown to have a positive effect on followers’ commitment, inspiring them to exert extra effort (e.g., Avolio, Zhu, Koh, & Bhatia, 2004; Dvir, Eden, Avolio, & Shamir, 2002; Rafferty & Griffin, 2004; Sosik, 2005; Walumbwa, Wang, Lawler, & Shi, 2005). Transformational leaders tend to increase employees’ willingness to focus on the firm with relatively more cooperative and organizational citizenship behaviors (Piccolo & Colquitt 2006; Sosik 2005). In other words, transformational leadership at the top is seen to promote a close alignment of a shared vision or goal orientation to employees’ behaviors and concerns.

Transformational leadership is generally assumed to be an attribute of individuals. However, the MLQ can be applied at the collective level. In that case we may speak of shared leadership. Various definitions of shared leadership exist (Carson, Tesluk, & Marrone, 2007). We chose to focus on shared leadership in the following terms: “a shared, distributed phenomenon in which there can be several (formally appointed and/or emergent) leaders” (Mehra, Smith, Dixon, & Robertson, 2006: 233). Ensley, Hmieleski, & Pearce (2006) found a positive relationship between a similar definition of shared leadership at the top of the organization and objective firm performance in new ventures. Sivasubramaniam, Murry, Avolio, & Jung (2002) used a version of the MLQ that was customized for measuring team leadership, the TMLQ (see also Bass & Avolio, 1994). With the TMLQ they assessed leadership provided by the whole team instead of the more customary one individual leader. Similarly, in our present study we asked each respondent to rate “the leadership” of the bank and not “the leader.” Hence we asked our respondents not to rate the hyper-individual, one “boss” of the firm but to focus on the top layer or top management team of their firm: hence “shared leadership.” Our study, situated in the Netherlands, took thereby serious the fact that most decisions in a large Dutch firm are made in a relatively consensual manner. Based on foregoing,
we formulated our first hypothesis:

**Hypothesis 1:** *Shared transformational leadership (a) positively affects a firm’s performance and (b) is positively related to perceived firm performance.*

**Shared transformational leadership and organizational culture**

It is generally assumed that transformational leadership is related to organizational culture. Also according to most leadership scholars, leadership and organizational culture do affect each other (e.g., Bass & Avolio, 1993; Barnett & McCormick, 2004; Corrigan, Diwan, Campion, & Rashid, 2002). Schein (1985: 314) warns that organizational culture control the leader more than the leader controls the culture. Yet, leaders can have a great impact on organizational culture, especially through role-modeling (e.g., Aitken, 2007). Systematic study of the impact of founders or subsequent leaders on organizational culture is rare (Bass, 1990; Staw & Sutton, 1993; O’Reilly, Chatman, & Caldwell, 1991; Athanassiou, Crittenden, Kelly, & Marquez, 2002). However, we do know that founders of firms as well as extraordinary leaders imprint their organizations’ characteristics (e.g., Ford, Wilderom, & Caparella, 2008; Ogbonna & Harris, 2001; Schein, 1983; Siehl, 1985). Transformational leaders are assumed to instill values, norms, and practices, using their idealized influence, i.e., role modeling while generally individual employees do feel to some extent dependent on leaders/managers. To the best of our knowledge, no systematic qualitative, longitudinal or quasi-experimental study exists in which the effects of organizational culture are traced as an explicit consequence of leadership. Such studies would offer a more solid foundation for the insights derived from the relatively few yet predominantly consulting- or survey-type studies at hand.

Transformational leaders in established firms tend to change culture by first understanding it and then realigning it with a new vision and a revision of its shared assumptions, values, norms, and practices (Bass, 1995). Also according to Schein (1985) vision and the ability to express it are needed for instilling an organizational culture. Organizational culture may even be one of the mechanisms through which transformational leadership affects (perceived and objective) firm performance. Accordingly, some recent studies have shown that transformational leadership is related to organizational culture (Barnett & McCormick 2004, Corrigan et al. 2002). In a sample of Australian schools, Barnett & McCormick (2004),
for instance, showed that transformational leadership is significantly related to certain aspects of a school’s learning culture. And Corrigan et al. (2002) found a positive relation between a cohesive organization culture and transformational leadership in mental health teams.

Conceptually, leadership and organizational culture do have elements in common. At least two aspects of leadership are communal with culture: ‘a social process defined through interaction’ and ‘a process of defining reality’ (Smircich & Morgan, 1982: 259). And the most important conceptual difference between both constructs is that leadership denotes the behavior of one or a few individuals, while culture is a collective or organization-wide phenomenon; it contains a characterization of an organizing setting and not of an organizing ‘committee.’ Further conceptual work is needed before a clearer, potentially reciprocal causal link between both constructs can be hypothesized. We are assuming that in some organizational cultures people take great care in issues of leadership succession: the new leaders will be well matched with the existing or the desired culture, thus producing a significantly productive relation between both intangible resources. In other words, we see an organization's culture as an organizational resource that shapes employees' perceptions of events that, in turn, affect the execution of top leadership (see Pettigrew, 1990). At the same time, leaders do influence the ways or styles in which employees go about carrying out their tasks.

Due in part to the large domain of organizational culture, we noted there are very few oft-used measures of organizational culture. Most of the previous organizational culture studies focused on shared values and attitudes; they paid little attention to carefully defined practices. According to Hofstede, Neuijen, Ohayv, & Sanders (1990), the largest part of a firm’s culture is ‘organizational practices.’ Organizational practices reflect the collective wisdom within an organization about how things can best be done. They may, because of their practicality, be more strongly related to organizational performance than values. Practices are a key visible part of culture (Hofstede et al., 1990). Hofstede (2001: 394) also showed that organizations differed more in practices than in values. Therefore, in line with several other authors (see also, Calori & Sarnin, 1991; Marcoulides & Heck, 1993; Petty, Lowery, Chapman, & Connell, 1995; Rousseau, 1990), we define organizational culture here as organizational practices. Organizational practices can be described as “particular ways of conducting organizational functions that have evolved over time…”
These “practices reflect the shared knowledge and competence of the organization ... they tend to be … viewed as the taken-for-granted way of doing certain tasks.” Moreover, according to Lehman, Chiu, & Schaller (2004: 689), “cultural norms and practices influence the thoughts and actions of individuals.” Our assessment of organizational culture is carried out exclusively on the level of practices. Very few other quantitative empirical studies of organizational culture define their specific focus so clear-cut (Van den Berg & Wilderom, 2004).

On the basis of a review of the literature, we chose for the purpose of our empirical study, organizational work practice dimensions that varied greatly and that, collectively, covered the cultural content found important in other organization-culture studies (see, e.g., Detert, Schroeder, & Mauriel, 2000; Van den Berg & Wilderom, 2004): external orientation, interdepartmental cooperation, human-resource orientation, empowerment, and improvement orientation. Together, this set of 5 organizational practices may serve as an indicator of organizational culture. The five dimensions can be found, under different labels, in most organizational-culture survey measures (Detert et al. 2000, Van den Berg & Wilderom, 2004) and utilized also by Ghobadian & O’Regan (2006).

We propose that all of our organizational-culture practice dimensions are related to shared transformational leadership. The first organization-culture dimension, external orientation, was selected because firms operate in an external environment with customers, markets, and competitors. Open-systems theory and many other writings on culture have made it clear that an organization’s external orientation reflects its internal functioning (e.g., Howard-Grenville, 2006). Menguc, Auh, & Shih (2007) show that transformational leadership affects a firm’s external orientation: through positively influencing the market orientation among employees within an organization. Hence, top transformational leadership can be linked to the external orientation of their employees.

We included interdepartmental cooperation because horizontal differentiation is a well-known barrier to productive inter-group communication which may hinder organizational functioning. By emphasizing the common, integrative purposes of the organization, transformational top leaders often stimulate cooperation between units within their organizations.

In many writings, human-resource content is considered an explicit part of the organizational-
culture construct (e.g. Gordon, 1990; Gordon & DiTomaso, 1992; Marcoulides & Heck, 1993; Quinn, 1988). And, like the other dimensions, human-resource orientation touches every employee as in, for instance, performance appraisals. Furthermore, Bass & Avolio (1993) found that transformational leaders take responsibility for the development of their followers. Therefore, employees’ orientation toward human resources must be related to shared transformational leadership. Also Zhu, Chew, & Spangler (2005) found that HRM mediates the relation between transformational leadership and perceived performance.

The fourth organizational-culture dimension, empowerment, pertains to employees’ core tasks. We assessed the degree to which employees have decision latitude in their jobs. This dimension is included in several organizational-culture studies, and is also much studied by itself. Transformational leaders tend to empower employees to take greater personal responsibility for achieving their vision (Bass & Avolio, 1993).

Finally, the degree of improvement orientation among personnel reflects a firm’s high level of ambition or at least a positive inclination toward organizational change (see also Rousseau, 1990). This fifth dimension was chosen in order to tap the degree of employee involvement in incremental changes within the organization. Transformational leaders, through their emphasis on a vision, foster a culture of creative change and growth (Bass & Avolio, 1993). Thus, we formulated our second hypothesis as follows:

**Hypothesis 2:** Shared transformational leadership is positively related to the organizational-culture dimensions of external orientation, interdepartmental cooperation, human-resource orientation, empowerment, and improvement orientation.

**Organizational culture and firm performance**

Denison’s (1984) study is one of the first in a body of empirical literature, in which a performance effect of organizational culture was claimed. Recent empirical evidence supports both an indirect and a direct effect of culture on a firm’s performance. Wei & Morgan (2004) showed that the supportiveness of a firm’s organizational culture had an indirect positive effect on new product performance (via ‘market orientation’) in Chinese firms. Hult, Cavusgil, Delingonul, Kiyak, & Lagerström (2007) found that culture
affects performance through a complex interplay of organizational leadership, strategy, structure and process. Also, the outcomes of the Lisrel study conducted by Marcoulides & Heck (1993: 222) suggest that “an organization’s value system affects organizational performance indirectly,” through organizational climate, task organization and individual attitudes of employees. In terms of the direct effect of organizational culture on firm performance, three more recent empirical studies are of interest. Carmeli & Tishler (2004) showed that organizational culture is among the intangible organizational elements that can explain organizational performance. Also Chan, Shaffer, & Snape (2004: 17) --found within a sample of Asian McDonalds units-- that “organizational culture can be a valuable resource”. Nahm, Vonderembse, & Koufteros (2004) showed that organizational cultures in which time-based manufacturing practices take place high performance is an outcome. Wilderom, Glunk, & Maslowski (2000) had analyzed ten earlier published empirical studies that examined the organizational culture – performance link. None of them has established a solid direct performance effect of organizational culture (see also Rouse & Daellenbach, 1999). Recent empirical studies are inconclusive regarding any direct or indirect performance effects.

Evidence of a direct link between organizational culture and firm performance is scarce (Wilderom et al., 2000). Yet individual factors that typically make up the organizational construct have been shown to be predictive of firm performance. We will now define and review the literature of the 5 delineated organizational practices insofar they show to be related to firm performance.

Ellis (2006) showed firmly in his meta-analysis, containing 56 empirical studies, that market orientation, which covers a part of external orientation, is a determinant of firm performance. Also later studies found market orientation to be related to organizational performance (Alpkan, Yilmaz, & Kaya, 2007; Ellinger, Ketchen Jr., Hult, Elmadağ, & Richey Jr., 2008).

Recent positive performance effects of interdepartmental integration have been shown by Ellinger (2000), Kahn (2001, 2005) and Lascu, Manrai, & Kleczek (2006). Good collaboration and effective relations between logistics and marketing help to improve the logistics performance (Ellinger, 2000). Interdepartmental integration, termed interdepartmental coordination in the present study, allows for the bringing together of company capabilities to develop a product that meets customer needs, is technically feasible, and can be effectively delivered by the company (Kahn, 2001). In 2005 he showed again that
interdepartmental cooperation has a positive effect on product development performance (Kahn, 2005). Lascu et al. (2006) finds support that there is a link between interdepartmental connectedness and firm performance.

There is empirical evidence of a relation between human-resource orientation and performance. For example Long and Louis (1998) concluded that organizations with a strong human-resource orientation outperformed organizations with a weak human-resource orientation. Recently, Akhtar, Ding, & Ge (2008) showed that a HRM focus on training, participation, results-oriented appraisal, and giving internal career opportunities led to better financial performance in China. Also Sels, De Winne, Maes, Delmotte, Faems, & Forrier (2006) found that HRM-intensity affects productivity and profitability. Although the extra costs associated with a higher HRM-intensity seemed to cancel out the productivity gains, an overall profitability effect was shown by a more intense HRM system.

For the empowerment dimension Logan & Ganster (2007) showed that the business units that received empowerment interventions performed better than those without the intervention. According to Tsai (2006), for instance, empowerment helps technological and innovative organizations perform better, because in those types of organizations “encouraging [employees] to pursue technological initiatives are regarded as essential elements” (p. 1526). In addition, Logan & Ganster (2007) showed that an empowerment intervention among unit managers of a large trucking company improved unit performance.

In various recent studies the amount of improvement orientation has shown to have an effect on firm performance. Corso & Giacobbe (2007), Hyland, Mellor, & Sloan (2007), and Middel, Op de Weegh, & Gieskes (2007) all found a positive relationship between different continuous improvement aspects and firm performance. Total Quality Management, which is concerned with the continuous improvement of all processes within the organization, has been shown to result in lower production costs and higher organizational performance (Kenichiro, 2002). On the basis of the foregoing, we formulate our third hypothesis as follows:

Hypothesis 3: An organizational culture that emphasizes a high degree of external orientation, interdepartmental cooperation, human-resource orientation, empowerment, and improvement orientation (a) predicts objective financial performance of the firm and (b) is related to perceived firm performance.
Present Study

We employed in 58 similar Dutch firms an employee survey and we obtained objective firm performance data at two points in time. By comparison, only one of the 39 studies in the meta-analysis by Lowe et al. (1996) used financial firm performance as the dependent variable. Only one other study in their set used longitudinal data. With the exception of that by Elenkov (2002), most similar studies to the present one were carried out in North America. One other advantage of the present study is that we controlled for common source variance and the attribution of financial success to management. This last advantage is especially important, because Puffer (1990), Awamleh & Gardner (1999) showed that knowledge of organizational performance could affect the attribution of charisma to the leader. Meindl & Erhlich (1987) established that people in general tend to address the positive outcomes in an organization to the leaders instead of other possible sources.

Methods

Sample and Data Collection

One of the biggest financial institutions in the Netherlands was involved in this study. In terms of assets, it belongs to the top 30 largest banks in the world (Wall Street Journal Europe, 1999), and it is not severely affected by the Fall 2008 bank crisis; it still maintains --since 1981-- its relatively rare triple-A rating. Within this institution, associated local banking firms operate more or less independently. They retain their original European-style cooperative company charter under which their clients (historically: farmers) collectively own their local banking firms. Throughout the Netherlands representatives from local ‘elites’ or opinion leaders form these firms’ local boards of governors. Thus, in line with Thomas’ (1988) recommendations, we sampled firms belonging to the same industry, and moreover, in this case also to the same, internationally operating, national bank.

Pilot study. In order to construct an own organizational-culture questionnaire we performed a pilot study. After reviewing and reformulating the initial questionnaire items, based on the culture literature, we drew a systematic sample. This pilot sample consisted of the employees of four local banking firms. Four size categories of local banking firms are commonly distinguished in the Netherlands: small,
small-to-medium, medium, and large firms (up to 30 employees; 31 to 60 employees; 61 to 100 employees; and more than 100 employees, respectively). One banking firm of each type was asked to participate (in return for a feedback report); all four firms agreed to take part. The employees received the questionnaire at their place of work. Anonymity was guaranteed. The total number of respondents was 282, yielding a response rate of 59%. Their mean age was 35.7 (SD= 10.1). Forty percent of the respondents were men; 2.3% belonged to the management team, and 18.5% worked in other managerial or supervisory positions. The mean number of years of employment was 14.6 (SD = 10.2). The proportion of employees with a Bachelor's degree or higher was 31.6%. The rest of the respondents held lower-level jobs.

Main study. Out of the population of 596 local banking firms, some were excluded from participation: very small firms (with fewer than 12 employees), recently merged firms, and the firms that had participated in the pilot study. In all, 535 banking firms remained. The random selection of 61 firms was stratified on the basis of the same four size categories identified in the pilot study (20, 23, 13, and 5 firms, respectively). All employees of each of the firms selected (a total of 3258 employees) received a questionnaire and a prepaid return envelope at their home addresses. This amounted to almost 10% of the entire group of employees of all associated local banking firms. The questionnaires were filled in and returned in a two-month period. The response rate was 47%. Three small firms with fewer than five respondents were eliminated. This was done because the standard errors of the means on the main variables were too large to allow aggregation at the organizational level. The resulting sample consisted of 1509 respondents from 58 local banking firms. The number of respondents per firm ranged from 5 to 75 with a mean of 26 and a median of 21.

In the final sample, 50% of the respondents were men. The mean number of years of employment was 9.8 (SD = 2.1). Twelve percent belonged to the management team, 27% worked in other managerial or supervisory positions, and 61% held lower-level jobs. The proportion of employees with a Bachelor's degree or higher was 41%. The firms in the main sample proved representative of the local banking firms within the entire financial institution. For instance, the mean age in the main sample was 35.2 (SD = 9.6) and in the total organization it was 34.4. The mean financial firm performance score in the main sample (the objective measure will be described below) was the same as in the population.
Measures

Shared transformational leadership. The degree to which the top management within each firm was seen as transformational is measured using a short version of the Multifactor Leadership Questionnaire (MLQ 8Y; Bass & Avolio, 1989). We used the valid translations by Den Hartog, van Muijen, & Koopman (1994); the translators were involved in the field of organizational psychology. Bass and Avolio distinguished four sub-dimensions of transformational leadership: charisma, inspiration, intellectual stimulation, and individual consideration.

In the present study, we focus on the role of leadership at the top of the organizations, as perceived by the entire personnel. Hence in terms of the MLQ, it is fair to focus only charisma and inspirational motivation. First because they represent leadership behaviors oriented toward the entire organization, whereas intellectual stimulation and individualized consideration are more dyadic in nature; if one assesses the style of shared leadership at the top of a firm among a cross-section of the entire personnel, like we did in this empirical study, only a small segment of the responding employees are directly interacting with the top leadership (Lowe et al., 1996). Also, charisma and inspiration are in other studies often collapsed into one dimension (Bass, 1995, 1996; Lowe et al., 1996). Thus, we used the two -charisma and inspiration- clusters of transformational leadership. Second, Kirkpatrick & Locke (1996) found in an experimental study that the core components of transformational leadership, vision and vision implementation through task cues, affected performance, while the core components of communication style did not. Communication style is for a large part composed of intellectual stimulation and individual consideration. The first two components (vision and vision implementation through task cues) are associated with charisma and inspiration. We assume, therefore, that top leadership viewed by the employees as both charismatic and inspirational can be labeled legitimately ‘transformational’ and affects the effectiveness of the firm or organizational units involved. Hence, we excluded the supervisory-leadership items, intellectual stimulation and individual consideration. Examples of the excluded items are: The leadership ‘… listens to my concerns’ and ‘… makes me back up my opinions with good reasoning.’ The leadership items were phrased for measuring at the organizational level, i.e., ‘I’ and ‘me’ were changed into ‘employees’ and ‘he/she’ into ‘top management.’ Employees were asked, ‘To what extent does the top management of your local banking
firm exhibit this behavior? The answer categories ranged from 1 (very rarely) to 5 (very often). We asked to rate the general leadership of their bank, because in modern, decentralized organizations as in the present study the leadership is more or less shared among several managers (Bligh, Pearce & Kohles, 2006). In order to determine whether the items belonged to one single dimension, we performed exploratory factor analysis (principal-axis factoring) on the scores aggregated at the organizational level. The results presented in Table 2 show that the ten items did indeed form one factor.

As shown in Table 3, the internal consistency of the scale was .95. At the individual level, the Cronbach’s alpha of shared transformational leadership was .89. In an entirely different sample of 46 small Dutch and German ICT service firms, the Cronbach’s alpha of the shared transformational leadership scale with nine identical items was .93 at the organizational level. We also checked the reliabilities at the individual level in two additional samples. In a large Dutch electronics factory, the Cronbach’s alpha of this scale was .92; in the sample representative of the entire Dutch working population, the alpha was .83.

Table 3 shows that the ICC(1) and ICC(2) were relatively high, indicating a high level of agreement among the employees on the shared transformational leadership within the firm. ‘Local firm’ explained nearly a quarter of the variance of the individual scores for shared transformational leadership (.24). Analysis of variance showed that the firms differed significantly in the degree of shared transformational leadership. No meaningful differences were found in this scale between managerial and non-managerial employees or between employees serving different types of clients.

**Firm culture.** Because we did not know of an organizational-culture questionnaire that could be used to measure highly valued organizational work practices with a wide range of dimensions, we developed new sets of items based on the relevant literature (Van den Berg & Wilderom, 2004). The items were designed to cover the whole spectrum of organizational culture as described in the literature. In the pilot, each employee was asked, ‘How often is this applicable to your organization?’ followed by the survey items. We developed the following five scales using exploratory factor analysis at the individual level: 1. Autonomy (5 items), 2. External orientation (8 items), 3. Interdepartmental cooperation (5 items), 4. Human-resource orientation (5 items) and 5. Improvement orientation (5 items). The Cronbach’s alphas of these scales were .77, .83, .86, .82, and .81, respectively. For a comparison between these dimensions and
the dimensions found in other studies we refer to Van den Berg & Wilderom (2004).

**Table 2**
Results of Factor Analysis on Aggregated Shared Transformational Leadership Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Engages in words and deeds which enhances its image of competence</td>
<td>.96</td>
</tr>
<tr>
<td>2. Displays extraordinary talent and competence in whatever management decides</td>
<td>.94</td>
</tr>
<tr>
<td>3. Employees are ready to trust management to overcome any obstacle</td>
<td>.93</td>
</tr>
<tr>
<td>4. Projects a powerful, dynamic, and magnetic presence</td>
<td>.91</td>
</tr>
<tr>
<td>5. Mobilizes a collective sense of mission</td>
<td>.89</td>
</tr>
<tr>
<td>6. Articulates a vision of future opportunities</td>
<td>.84</td>
</tr>
<tr>
<td>7. Employees have complete confidence in management</td>
<td>.83</td>
</tr>
<tr>
<td>8. Makes employees aware of strongly held values, ideals, and aspirations which are shared in common</td>
<td>.81</td>
</tr>
<tr>
<td>9. Talks optimistically about the future</td>
<td>.60</td>
</tr>
<tr>
<td>10. Demonstrates a strong conviction in its beliefs and values</td>
<td>.51</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Eigenvalue</strong></td>
<td>6.96</td>
</tr>
<tr>
<td><strong>% Variance Explained</strong></td>
<td>70%</td>
</tr>
</tbody>
</table>

\(^a\) N = 58
Table 3

Internal Consistencies, ICC(1)s, ICC(2)s, and F-values of Perceptual Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>□  a</th>
<th>ICC(1) b</th>
<th>ICC(2) b</th>
<th>F b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared transformational leadership</td>
<td>.95</td>
<td>.25</td>
<td>.89</td>
<td>8.44**</td>
</tr>
<tr>
<td>External orientation</td>
<td>.91</td>
<td>.22</td>
<td>.80</td>
<td>7.08**</td>
</tr>
<tr>
<td>Interdepartmental cooperation</td>
<td>.86</td>
<td>.14</td>
<td>.67</td>
<td>4.22**</td>
</tr>
<tr>
<td>Human-resource orientation</td>
<td>.83</td>
<td>.16</td>
<td>.72</td>
<td>4.75**</td>
</tr>
<tr>
<td>Job Autonomy</td>
<td>.93</td>
<td>.16</td>
<td>.72</td>
<td>4.74**</td>
</tr>
<tr>
<td>Improvement orientation</td>
<td>.81</td>
<td>.07</td>
<td>.51</td>
<td>1.76**</td>
</tr>
<tr>
<td>Perceived firm performance</td>
<td>.93</td>
<td>.23</td>
<td>.82</td>
<td>7.33**</td>
</tr>
</tbody>
</table>

a Based on aggregated scores; N = 58.
b Based on individual scores; N = 1509.

** p < .01 (two-tailed)

In the main study, we kept the 5 dimensions and, following another round of interviews, we added seven new items, resulting in a list of 35 items. The question in the final questionnaire heading was, ‘To what extent does the following occur in your organization...?’ (= the ‘is-items’). In order to assess the degree to which an organizational work practice was ‘highly valued,’ we also asked: ‘To what extent should the following occur in your organization...?’ (= the ‘should-items’). The answer categories ranged from 1 (very rarely) to 5 (very often).

In order to construct organization-level scales that were as independent as possible, a principal-axis factor analysis using the ‘is-items’ was carried out. Because the items were formulated to measure organizational characteristics, we performed the factor analysis at the organizational level. Because the aggregated scores of the 58 organizations were based on the mean scores of many individuals, these scores were very stable and, therefore, fewer cases were required than for individual scores (Hofstede et al. 1990). In a five-factor solution, each factor represents one of the preconceived organizational-culture dimensions.
The items loading higher than .50 on the intended factor were reanalyzed, yielding the factor structure presented in Table 4. For the purpose of this paper the Dutch items were translated into English. We concluded that these culture dimensions could be distinguished from each other. Factor analysis at the individual level showed that all the items described in Table 4 had the highest loadings on the intended factor. To save space we do not present those results. The organizational-culture dimensions thus existed at both the individual and the organizational level.

Table 4

Results of Factor Analysis on Aggregated Firm-Culture Items

<table>
<thead>
<tr>
<th>Items</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Empowerment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Room for non-managerial employees to make their own decisions</td>
<td>.89</td>
<td>.11</td>
<td>.09</td>
<td>.07</td>
<td>.23</td>
</tr>
<tr>
<td>2. Freedom for employees to depart from rules</td>
<td>.84</td>
<td>.06</td>
<td>.06</td>
<td>.04</td>
<td>.11</td>
</tr>
<tr>
<td>3. Freedom for employees to implement decisions according to their</td>
<td>.82</td>
<td>.14</td>
<td>.18</td>
<td>-.07</td>
<td>.17</td>
</tr>
<tr>
<td>own views</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Employees influence important decisions concerning work</td>
<td>.71</td>
<td>.35</td>
<td>.12</td>
<td>.28</td>
<td>.11</td>
</tr>
<tr>
<td>5. Freedom for employees to plan their own work</td>
<td>.70</td>
<td>-.07</td>
<td>.12</td>
<td>.15</td>
<td>.25</td>
</tr>
<tr>
<td>6. The opportunity for employees to bring forward ideas before</td>
<td>.68</td>
<td>.28</td>
<td>.07</td>
<td>.34</td>
<td>.23</td>
</tr>
<tr>
<td>decisions are made</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>External orientation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Quick reaction to developments in the market</td>
<td>.19</td>
<td>.80</td>
<td>.16</td>
<td>.24</td>
<td>.03</td>
</tr>
<tr>
<td>2. Investigation of the wishes and needs of customers</td>
<td>.13</td>
<td>.80</td>
<td>.12</td>
<td>.11</td>
<td>.19</td>
</tr>
<tr>
<td>3. Active canvassing of new customers</td>
<td>-.01</td>
<td>.79</td>
<td>.14</td>
<td>.05</td>
<td>.16</td>
</tr>
<tr>
<td>4. Working to improve the local market position</td>
<td>.13</td>
<td>.78</td>
<td>.05</td>
<td>.19</td>
<td>.10</td>
</tr>
<tr>
<td>5. Thorough training of employees in systematically gathering</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>information on what customers want to see improved</td>
<td>.05</td>
<td>.70</td>
<td>.14</td>
<td>.23</td>
<td>.39</td>
</tr>
<tr>
<td>6. Having an edge over local competitors</td>
<td>.29</td>
<td>.58</td>
<td>.35</td>
<td>.03</td>
<td>.13</td>
</tr>
</tbody>
</table>
Interdepartmental cooperation

1. Useful cooperation between departments .24 .13 .84 .13 .14
2. Exchange of useful information between departments -.04 .19 .75 .15 .00
3. Departments support one another in the resolution of problems .22 .19 .75 -.08 .36
4. Mutual communication between heads of departments .37 .18 .56 .36 .01

Human-resource orientation

1. Performance appraisals are taken seriously .06 .15 -.05 .94 .04
2. Employees obtain useful information about their own functioning .13 .33 .14 .71 .25
3. Careful selection of new personnel .20 .15 .28 .65 .04

Improvement orientation

1. Employees closely monitor their own way of working .25 .14 .09 .07 .71
2. Employees' search for possibilities to improve the organization .35 .26 .17 .09 .63
3. Initiatives taken by employees to improve the way in which the work is done
   Eigenvalue 4.43 3.98 2.49 2.40 1.89
   Percentage of variance explained 20% 18% 11% 11% 9%

* N = 58.

The Cronbach’s alphas of the aggregated scales are shown in Table 3, and indicate that the internal consistencies of all five organizational-culture scales were high. Because the final scales were constructed in the main study, the alphas may have been inflated by capitalization. The values were so high, however, that it was unlikely that reliabilities in other samples would be low (< .70). In fact, we examined the same firm-culture scales in other organizational settings. For a group of 275 employees of a large Dutch electronics factory, the Cronbach’s alphas of the five scales, at the individual level, ranged from .72 to .84. In a sample of 560 respondents, representative of the entire Dutch working population, employed in vastly different organizations, the Cronbach’s alphas of these scales ranged from .76 to .88. These results show that at the individual level these scales are also reliable in other Dutch samples. Because aggregated item scores tend to be very stable, high firm-level reliabilities are likely.
A precondition for aggregating data is perceptual agreement within units. The appropriate statistics for perceptual agreement are the ICC(1) and the ICC(2) (James, 1982). The ICC(1) is a form of intraclass correlation. This statistic indicates the part of the variance of the individual perceptual scores explained by classes (firms) and may be interpreted as the reliability of a single rating. James reported a median of approximately .12 in climate studies. The ICC(2) is an estimate of the reliability of the aggregated means scores. We followed the guidelines developed by McGraw & Wong (1996) for calculating and evaluating the ICCs. The results presented in Table 3 show that the percentages of variance explained by the scales of autonomy, external orientation, interdepartmental cooperation, and human-resource orientation were acceptable and that the reliabilities of their mean scores within local banking firms were high. However, the ICC(1) and ICC(2) of improvement orientation were rather low. We concluded that the perceptual agreement on four of the five organizational-culture scales was high and that the improvement orientation scale needed to be improved.

In order to find out if the organizational practices were desired or valued by the respondents, we added the scores for the ‘should-items’ corresponding with the ‘is-items’ of the organizational-culture dimensions. We divided this by the number of items. These scores indicate the degree to which the organizational practices belonging to a culture dimension should occur in the view of the employees. The mean scores for the ‘should-scales’ were 3.82 for autonomy, 4.31 for interdepartmental cooperation, 4.27 for human-resource orientation, 4.27 for external orientation, and 4.13 for improvement orientation. These results show that the organizational work practices were indeed valued by the employees. This gave us added confidence about the relevance of the organizational practices forming the actual organizational-culture dimensions.

Finally, we examined differences in the dimensions between managerial and non-managerial personnel and between three categories of employees serving different types of clients (private, industrial, and internal). Analyses of variance showed that, although some mean differences were significant, they were all small (< .22). Therefore, we did not take these differences into account.

**Financial firm performance.** Financial performance was expressed using one ratio. This ratio is the most widely used ratio within this financial institution and is also used by the Dutch Central Bank,
which regularly examines and compares all Dutch banking firms. A firm’s total profits in a specific year minus the return on capital is divided by the total operating costs plus depreciation. Both corrections (on profits and operating costs) are necessary because return on capital is not the result of banking activities in the year concerned, and the depreciation of the firm’s assets constitutes costs in that year which were paid earlier. This ratio is widely considered to be the only reliable financial performance measure of the local banking firms. In the main study, we obtained the performance data of the 57 local banking firms for the year in which the questionnaire data were collected (time 1) and the performance data of 46 of the same local banking firms two years later (time 2). The absence of performance ratios for 12 of the firms at time 2 was due to the fact that they were in the process of being merged with another local banking firm in that period. For time 1 and time 2, the firms’ performance ratios ranged from .97 to 1.50. A ratio of 1 would mean that a firm had no profit through its regular banking activities in that year. This measure has the advantage that it is objective and independent on human perception. The disadvantage is that it is dependent on factors outside the scope of this study such as the market.

**Perceived firm performance.** We used perceived firm performance, because this measure is rather independent on the market and includes other elements of firm performance than financial performance. A scale was developed (by the authors: in Dutch) for the purpose of measuring perceived firm performance. The participants were asked, In your opinion, to what degree does your organization need to improve on the following performance criteria: (a) efficiency, (b) customer satisfaction, (c) managerial behavior, (d) professional behavior, (e) service quality, (f) contact with clients, (g) position on the market, and (h) reputation. The answer categories ranged from 1 (very little) to 5 (very much). The heading was phrased in this way to reduce the effect of social desirability: while respondents may like to think that their organization scored high on the performance criteria mentioned, they know that an organization always needs to improve. This phrasing was also in accordance with the language used within this organization. Managers do not tend to communicate that the organization has weaknesses, but rather say that the organization needs improvement. Inversion of the item scores resulted in a general measure of perceived firm performance. The Cronbach’s alpha of the scale at the organizational level was .93.
Analyses

All the three hypotheses were tested using structural equation modeling (LISREL8). An advantage of this method is that, because latent variables are defined, the relationships are controlled for some unreliability within the measures. Another advantage is that factor analysis and path analysis can be combined. Also, structural equation modeling provides statistics for the whole model. Based on the recommendations of Browne & Cudeck (1993) and Fan, Thompson, & Wang (1999), the following fit indices were selected: RMSEA, SRMR, and CFI. Following Browne & Cudeck (1993), values of the RMSEA and the SRMR up to .05 indicate a close fit and values up to .08 represent a reasonable model fit. The CFI should be higher than .95.

As Granger (1969) indicated, a causal effect can be tested by relating the independent variable measured at time 1 to the dependent variable measured at time 2, controlled for the same dependent variable measured at time 1. In order to test the effects on financial performance, a path from financial performance at time 1 to financial performance at time 2 was added in the model of Figure 1. Meindl & Ehrlich (1987) showed that knowledge of financial performance might affect the perception of transformational leadership. To control for this effect, paths from financial firm performance at time 1 to perceived firm performance were included in the models of Figures 2 and 3.

Because the data on the perceptual variables were collected using only one sort of source, these analyses required a correction for common source variance. The respondents from each local banking firm were randomly divided into two equal or nearly equal groups which were labeled sub-samples A and B (mean n’s in both samples were 13.8). Shamir, Zakay, Breinin, & Popper (1998) used a similar method. The scores for the four organizational-culture dimensions in Figure 1 were calculated in sample A, while shared transformational leadership was based on the scores in sample B. Four local firms with three or fewer respondents in one of these sub-samples were eliminated. We also used this method to investigate the relations between shared transformational leadership, organizational culture, and perceived firm performance. Because of a lack of respondents in several local banks, the sample could not be divided into three sub-samples. Therefore, the relation of shared transformational leadership and organizational culture with perceived firm performance was tested in two separate analyses (see Figures 2 and 3).
Figure 1

Effects of Shared Transformational Leadership and Organizational Culture on Financial Firm Performance (N=46). T1 = time 1, T2 = time 2.

* p < .05; **p < .01 (one-tailed)
Figure 2


* p < .05; ** p < .01 (one-tailed)

T1 = time 1.
Figure 3
Relationship between Organizational Culture and Perceived Performance Controlled for Financial Firm performance (N=57).

Empowerment

External orientation

Interdepartmental cooperation

Human resource orientation

Organizational culture

Perceived firm performance

Financial firm performance T1

** p < .01 (one-tailed)

T1 = time 1
Results

The correlations among all measures are presented in Table 5. The correlations between the same measures from sub-samples A and B represent inter-group reliabilities and are presented between parentheses on the diagonal of this table. The inter-group reliabilities of the scales, except for that of the improvement-orientation scale, were acceptable. Because the within-firm agreement on this last scale was also low, the improvement-orientation dimension was not used in further analyses. The inter-group reliabilities of organizational culture and shared transformational leadership were high. Shared transformational leadership correlated significantly with firms’ financial performance at time 1 and at time 2, but the organizational-culture dimensions did not correlate significantly with the firms’ financial performance measure in both years. The low correlation between perceived and objective firm performance at time 1 means that the perception was not strongly affected by the objective performance of the last year and can be explained by the fact that employees did not know their firms’ results well.

The positive results of the test of Hypothesis 1a, which states that shared transformational leadership affects financial performance, are presented in Figure 1. The organizational-culture dimensions were used as observed variables for the construction of the latent variable of organizational culture. The latent variables of shared transformational leadership, financial performance at time 1, and financial performance at time 2 were constructed by fixing them to the corresponding observed variables, and setting the error variance of the observed variables to 1 minus the reliability of the measure. The reliabilities used were .05, 0, and 0, respectively. Because organizational culture and shared transformational leadership were used in the same model, their effects on each other were controlled for. To control for common source bias, we used the split-sample method. The test of the model fit yielded the following results: $\chi^2 (11) = 11.02$, $p = .44$, RMSEA = .007, SRMR = .048, and CFI = 1.00. The results show that the model did not differ significantly from the data and that the model fit was good. Because the coefficient of the path from shared transformational leadership to financial performance at time 2 was significantly positive, Hypothesis 1a was confirmed.

The model in Figure 2 represents Hypothesis 1b, which stated that shared transformational leadership is related to perceived firm performance. In order to control for response tendencies, different respondents were used for measuring shared transformational leadership and perceived firm performance. The coefficient of the
<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>s.d.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Empowerment(^a)</td>
<td>2.76</td>
<td>.29</td>
<td>(.71)</td>
<td>2.76</td>
<td>.29</td>
<td>(.71)</td>
<td>2.76</td>
<td>.29</td>
<td>(.71)</td>
<td>2.76</td>
</tr>
<tr>
<td>2. External orientation(^a)</td>
<td>3.03</td>
<td>.31</td>
<td>.38**</td>
<td>(.80)</td>
<td>3.03</td>
<td>.31</td>
<td>.38**</td>
<td>(.80)</td>
<td>3.03</td>
<td>.31</td>
</tr>
<tr>
<td>3. Interdepartmental cooperation(^a)</td>
<td>2.97</td>
<td>.27</td>
<td>.43**</td>
<td>.44**</td>
<td>.60</td>
<td>2.97</td>
<td>.27</td>
<td>.43**</td>
<td>.44**</td>
<td>.60</td>
</tr>
<tr>
<td>4. Human-resource orientation(^a)</td>
<td>3.08</td>
<td>.37</td>
<td>.35**</td>
<td>.39**</td>
<td>.34**</td>
<td>(.63)</td>
<td>3.08</td>
<td>.37</td>
<td>.35**</td>
<td>.39**</td>
</tr>
<tr>
<td>5. Improvement orientation(^a)</td>
<td>2.82</td>
<td>.19</td>
<td>.58**</td>
<td>.42**</td>
<td>.39**</td>
<td>.31*</td>
<td>(.26)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Shared transformational leadership(^a)</td>
<td>3.06</td>
<td>.37</td>
<td>.56**</td>
<td>.65**</td>
<td>.44**</td>
<td>.58**</td>
<td>.36**</td>
<td>(.82)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Perceived firm performance(^a)</td>
<td>2.72</td>
<td>.32</td>
<td>.48**</td>
<td>.62**</td>
<td>.41**</td>
<td>.24</td>
<td>.45**</td>
<td>.44**</td>
<td>(.72)</td>
<td></td>
</tr>
<tr>
<td>8. Financial firm performance at time 1(^b)</td>
<td>1.20</td>
<td>.09</td>
<td>.02</td>
<td>.17</td>
<td>.16</td>
<td>.15</td>
<td>.00</td>
<td>.30*</td>
<td>.35**</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) N = 58. \(^b\) N = 57. \(^c\) N = 46.

* p < .05. ** p < .01. (two-tailed)

Note: Within parentheses are correlations between variables in split groups.
path from shared transformational leadership to perceived firm performance was significant and positive. This result shows that shared transformational leadership was related to perceived firm performance, which was controlled for financial performance, and that Hypothesis 1b was confirmed. Because this model had no degrees of freedom, the fit of the model as a whole with the data could not be tested.

In order to test Hypothesis 2, which states that shared transformational leadership is positively related to the organizational-culture dimensions, the culture dimensions within one split sample were correlated with shared transformational leadership measured within the other split sample. The results presented in Table 6 show that shared transformational leadership was significantly related to autonomy, external orientation, interdepartmental cooperation, and human-resource orientation. Because the scores were derived from different groups of respondents, these correlations could not have been affected by individual response style, the most important source of common method variance. Thus, all four reliable organizational-culture scales were significantly related to our measure of shared transformational leadership, confirming the largest part of Hypothesis 2.

**Table 6**

Correlations between Shared transformational Leadership and Organizational-Culture Dimensions in Split Samples (N=54)

<table>
<thead>
<tr>
<th></th>
<th>Shared transformational leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empowerment</td>
<td>.52**</td>
</tr>
<tr>
<td>External orientation</td>
<td>.61**</td>
</tr>
<tr>
<td>Interdepartmental cooperation</td>
<td>.36**</td>
</tr>
<tr>
<td>Human-resource orientation</td>
<td>.50**</td>
</tr>
</tbody>
</table>

** p < .01 (one-tailed)

Hypothesis 3a, which states that the extent of emphasis in the organizational culture on job autonomy, external orientation, interdepartmental cooperation, human-resource orientation, and improvement orientation predicts improvements in firms’ financial performance, was also tested using the model presented in Figure 1.
Because improvement orientation was not reliable, this measure was deleted from the model. The coefficient of the path from organizational culture to financial performance at time 2 was not significant. Hypothesis 3a was therefore not confirmed.

Hypothesis 3b stated that the extent of emphasis in the organizational culture on job autonomy, external orientation, interdepartmental cooperation, human-resource orientation, and improvement orientation is related to perceived firm performance. In order to test the model presented in Figure 3 (necessarily without improvement orientation) we used again the split-sample method. The results of the fit test were $\chi^2 (8) = 7.78$, $p = .46$, RMSEA = .00, SRMR = .05, and CFI = 1.00. As shown in Figure 3, the coefficient of the path from organizational culture to perceived performance was significant and strongly positive. The results show that the model had a close fit and that the relationship between organizational culture and perceived performance was strong, even after financial performance was controlled for. In the main Hypothesis 3b was confirmed.

The relationship between shared transformational leadership and firm performance may depend on organizational culture and the relations between organizational culture and firm performance may depend on shared transformational leadership. In order to verify this, the interaction effects of shared transformational leadership and the four culture dimensions were investigated using hierarchical regression analyses. In the first step, leadership and one of the culture dimensions were entered into the regression and, in the second step, the cross product of their standardized scores was entered. Standardization was performed before multiplication to reduce the danger of multicollinearity. Financial performance (at time 1 and at time 2) and perceived firm performance were the dependent variables. In none of the twelve analyses did the entering of the cross product significantly increase the percentage of variance explained in the objective performance measure. These results show that the relationship of shared transformational leadership with firm performance did not depend on organizational culture and vice versa.

It may be argued that the high correlations between the leadership and culture scores resulted from conceptual overlap between the two measures. Therefore, we performed a factor analysis (with varimax rotation, $N = 57$) using all aggregated culture and leadership items. In a 6-factor solution, one leadership factor and five culture factors emerged. All the culture items had the highest loadings on culture factors and all the leadership items loaded highest on the one leadership factor. These results show that our valid shared
transformational leadership assessment is distinguishable from the way we measured organizational-culture dimensions. This is important since in some other survey measures of organizational culture one may find explicit leadership content.

**Discussion**

In this study we show that one specific, intangible intra-firm resource, shared transformational leadership, predicts firms’ financial performance, after controlling for present financial performance. This result denotes a causal link between shared transformational performance and financial performance. Our research design allowed for such causal inference (although they are not equally strong as in experimental settings); we had available objective firm-performance data with a time-span of two years. This result shows that even in the Dutch context, which is known for detracting from charismatic and transformational leadership (see Den Hartog et al., 1997), a transformational leadership style has a positive effect on firm performance (see also Koene et al., 2002). Thus even in organizations such as banks, not the traditional contexts of transformational leadership, leadership styles characterized by charisma and inspiration, appeared positively related to both objective and perceived firm performance. These results are in accordance with the finding that charisma is considered important in nearly all countries (House et al., 1999; House, Javidan, Hanges, & Dorfman, 2002).

We found, furthermore, that both shared transformational leadership and organizational culture are related to perceived firm performance. Because we used split samples, these results were controlled for common source bias. Also, perceived firm performance was controlled for financial performance, which excluded the idea that financial performance is attributable to organizational leadership and practices. These results indicate that employees in an organization with transformational leadership and a culture characterized by highly-valued organizational practices (see under Methods, Measures, Organizational Culture) view firm performance as high.

We found also that our organizational-culture dimensions (consisting of organizational work practices) correlated significantly with shared transformational leadership in split samples. These results show that transformational leadership relate significantly to the prevalence of highly valued organizational practices. These findings are also in accordance with the idea that, in a firm with highly valued work practices, transformational
leadership emerges. The appointment of a leader with a transformational style in organizational cultures characterized by organizational work practices that are not highly valued by its personnel is less likely or less likely to be successful. These suggestions are in line with Barney’s insight that especially top management should create firm value (Barney, 1991). We found that the style of such management must be transformational (i.e., both charismatic and inspiring). Clearly, this involves more than working long hours or acting ‘hard’ and ‘smart’ (Bennis, 1999). Because the content of our notion of leadership and of organizational culture differs from that of Barney, the normative implications of our results differ from his (see also Mosakowski, 1998).

Our data show that firm culture is not directly related to firm financial performance. The costs involved in investing in high-quality organizational work practices may explain the remarkable lack of a relationship between firms’ financial performance and organizational culture. For all we know, there may be both a negative (culture costs money) and a positive (culture makes money) relation between organizational culture and objective or financial firm performance. Improving organizational culture (if done well) may turn out to be a profitable firm investment in the long run. Accordingly, the positive relationship between organizational culture and perceived firm performance suggests that culture affects performance criteria, such as customer satisfaction and professional behavior, which may take more time to be expressed in financial performance. Our interpretation is in accordance with the studies by Denison (1984; 1990), which show the time dependence of the impact of culture on performance. This notion of organizational culture as an investment opportunity requires future longitudinal investigation. The lack of a relationship between organizational culture and objective financial performance also indicates that, in the short time interval covered by the study, the effect of shared transformational leadership on financial performance was not mediated by culture. If carried out well, cultural interventions are more likely to pay off in the longer term. The findings of the present study are in accordance with this piece of conventional wisdom.

Perceived firm performance appeared to be only modestly related to objective or financial firm performance. This finding can be explained by the fact that financial performance is dependent on many factors within and outside the organization. We used financial performance and perceived firm performance because both measures have advantages. Financial performance is the main criterion for most organizations. However, it is a narrow manifestation of firm performance, neglecting factors like investments, relationships with clients
and providers, and opportunities for the future. Perceived firm performance is a broader outcome concept, but it is in essence a subjective measure, subject to rater biases.

The study was performed within a single industry and within the historically determined corporate governance structure of the Dutch banking firm involved. The advantage of this design is that the firms had similar environments, while they were independent enough to show differences in the variables measured. Our relatively homogenous sample of firms offsets the limited number of control variables used. Because the firms were sampled from the same sector, the survey items were applicable to the situations in all the firms. However, because the local banks were part of a large banking firm, the cultures of the local (semi-autonomous) banks may have shown smaller differences than would the cultures of firms that are completely independent. This may explain in part the weak association between organizational culture and financial performance.

A practical implication of the study is that organizations may need to select top managers who are transformational leaders. Such leaders appear to have positive effects on an organization’s (financial and perceived) performance, and most likely on its organizational culture as well. For the same reasons, top-management training should focus on transformational behaviors such as showing charisma and providing inspiration. Additionally, the findings of this study show that shared transformational leadership is strongly related to organizational culture, which, in turn, appeared strongly related to perceived firm performance. Therefore, we suggest that firm managers may use organizational culture/practices for the purpose of achieving higher levels of employee-perceived performance. Also, with the results of our study we pose that organizational culture is not related to short-term financial success, because of the investments needed. This implies thus that organizations engaged in the improvement of organizational culture (as defined by improving a set of organizational practices) cannot expect increased profitability in the short run. No wonder thus that most short-term-oriented top managers do not ‘burn their fingers’ on culture change. Harris & Ogbonna (2002) even warn quite explicitly for the unintended consequences of culture interventions.

One limitation of the present study is that perceived firm performance was only investigated at one point in time. Therefore, we cannot draw conclusions about causality with respect to this variable. In future studies, perceived performance should be examined in longitudinal designs. Also, studies focusing on the relationship
between organizational culture and financial performance should comprise a longer time frame. Additional performance or outcome measures, such as customer satisfaction (Montes, del Mar, & Fernandez, 2003), should be included in future studies. Another limitation is that the improvement-orientation culture scale was not reliable and should be improved. However, in a cross-cultural study in both the Netherlands and Romania (Kunzler, 2007), the scale was reliable.

More progress is not only needed in further developing valid quantitative measures of organizational culture/climate (see Detert et al., 2000; Lehman et al., 2004; Van den Berg and Wilderom, 2004). One definite challenge in this respect is the incorporation of organizational values in quantitative assessments of organizational practices. Moreover, additional conceptual distinctions between valid operationalizations of leadership style, processes and culture (both at the organizational and cross-national levels, see e.g. Chemers, 1997) need close examination for possible overlap and distinction (Carmeli & Tishler, 2004). Also further ‘evidence of network effects on…charismatic leadership attributions…’ will help unravel the cultural complexity involved in leadership (Pastor, Meindl, & Mayo, 2002: 418). Such study would surely help to make the needed shift: ‘from a static to a dynamic conceptualization of the role’ of leadership (Druskat & Wheeler, 2003: 453).

This study’s three key variables (firm performance, leadership, and organizational culture) have typically been investigated separately by scholars from three different sub-disciplines: Strategy, Organizational Behavior, and Organizational Theory. In contrast to the typical mono-disciplinary approach to these variables, our study was interdisciplinary and, hopefully, many more will follow. We found evidence for the idea that leadership and/or social organizational capital --in whatever form labeled or captured-- (see also, for instance, Bolino, Turnley, & Bloodgood, 2002; Inkpen & Tsang, 2005; Kaplan & Norton, 2004) matters.
References


Mosakowski, E. (1998). Managerial prescriptions under the resource-based view of strategy: The example of


Westport, CT.


