CEO leadership behaviors, organizational performance, and employees' attitudes

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1. Introduction

Many studies have explored the link between executive leadership and organizational outcomes (see reviews by Boal & Hooijberg, 2000; Cannella & Monroe, 1997; Carpenter, Geletkanycz, & Sanders, 2004; Hunt, 1991), but the results are inconsistent. Some studies showed that chief executive officers (CEOs) are critically important for an organization to achieve a high level of performance (e.g., Finkelstein & Hambrick, 1996; Katz & Kahn, 1978; Peterson, Smith, Martorana, & Owens, 2003; Thomas, 1988). Other scholars have argued that CEOs are inconsequential to organizational effectiveness (e.g., Lieberson & O'Connor, 1972; Meindl, Ehrlich, & Dukerich, 1985; Pfeffer, 1977). These mixed results were also found in recent studies (Agle, Nagarajan, Sonnenfeld, & Srinivasan, 2006; Ling, Simsek, Lubatkin, & Veiga, 2008a; Ling, Simsek, Lubatkin, & Veiga, 2008b; Tosi, Misangyi, Fanelli, Waldman, & Yammarino, 2004; Waldman, Javidan, & Varella, 2004). Even though there is a consensus in the literature that the CEO matters to firm performance, there is no clear answer to the question of which aspects of CEO characteristics are important to organizational effectiveness and how a CEO affects organizational performance. To resolve this puzzle, another group of scholars argued that CEOs would have the most impact on firm outcomes during periods of crises (House, Spangler, & Woycke, 1991) or in environments with high uncertainty (Waldman, Ramirez, House, & Puranam, 2001). The present study aims to contribute to this discussion by exploring the question of how CEO's leadership behaviors may be related to firm outcomes in a context where some CEOs should be able to exert great influence. The context is the People's Republic of China where traditional firms are currently experiencing major corporate transformations along with a corresponding rise in many new and young entrepreneurial firms (Tsui & Lau, 2002). This condition creates uncertainty for firms and provides a context in which leaders should have high levels of discretion to influence firm outcomes (Boal & Hooijberg, 2000; Hambrick & Finkelstein, 1987). As argued by Boal (2004), the
greater the discretion a CEO has, the more influence the CEO's choices, including decisions and their behavioral tendencies or leadership style, will have on organizational outcomes.

Further, in traditional Chinese values, leaders have supreme authority over the organization and are the primary decision makers, with employees looking to the top leader for guidance and approval. The CEO is an important (father) figure in the organization whose behaviors are observed and internalized (Farh & Cheng, 2000). This context also provides a good setting to investigate the mediating role of employee reactions to the CEO's leadership in the relationship between a CEO's behaviors and firm performance.

Different theoretical perspectives focus on the relevance of different CEO characteristics that may influence firm outcomes (Boal, 2004; Cannella & Monroe, 1997). One of the most popular theories of executive influence is the upper echelon theory (Hambrick & Mason, 1984), which argues for the importance of demographic factors (age, functional background, career experiences, education, socioeconomic roots, etc.) as proxies for psychological aspects (cognition, values, and personality) in influencing firm outcomes. A number of studies have investigated the link between demographic variables of top management teams and firm performance (e.g., Carpenter & Fredrickson, 2001; Hambrick, Cho, & Chen, 1996; Smith et al., 1994).

Other studies have tested the link between perceptions of CEO charisma and organizational performance. House, Spangler, and Woycke (1991) found the charisma of the U.S. president to be associated with presidential performance, particularly during periods of crisis. Using an industrial sample, Waldman et al. (2001) also showed that CEO's charismatic leadership to be significantly related to firm performance. Another study by Waldman and his colleagues Waldman et al. (2004) using 69 public U.S. and Canadian firms showed that CEO charisma was related to subsequent organizational performance as measured by net profit margins and return on equity. However, Tosi et al. (2004) did not find a direct relationship between CEO charisma and organizational performance. In addition, Agle et al. (2006) conducted a study to show that organization performance was associated with subsequent perceptions of CEO charisma and that prior perceptions of CEO charisma did not lead to subsequent organizational performance. It is possible that charisma may be an attribution rather than a cause of firm performance (Meindl et al., 1985). In a very recent study, Ling et al. (2008b) found that a CEO's transformational leadership influenced firm performance in small, privately held firms.

We aim to contribute to a further understanding of this puzzle by examining the relationship between the CEO’s leadership behaviors and firm performance, mediated by employees’ attitudes, an assumed mediation that has not been directly tested. Previous studies have shown that aggregated employees’ attitudes are positively related to firm performance (Harter, Schmidt, & Hayes, 2002; Ostroff, 1992; Ryan, Schmit, & Johnson, 1996; Schleicher, Watt, & Greguras, 2004; Schneider, Hanges, Smith, & Salvaggio, 2003) but these studies have not linked aggregated employees’ attitudes to CEO’s leadership behaviors.

2. Theory and hypotheses

2.1. CEO leadership behaviors

To respond to the call for “a moratorium on the use of demographic variables as surrogates for psychosocial constructs” (Boal & Hooijberg, 2000: p.523), scholars have begun to focus on the influence of the behaviors of CEOs on firm performance (e.g., Colbert, Kristof-Brown, Bradley, & Barrick, 2008; Ling et al., 2008a; Ling et al., 2008b; Waldman et al., 2001). Most recent scholars have focused on charismatic leadership and transformational leadership and their effects on organizational effectiveness. Charismatic leadership is conceptually similar to transformational behavior. Shamir, House and Arthur (1993: p.1) stated, “Such leadership—alternatively called ‘charismatic’, ‘visionary’, or ‘transformational’—is claimed to affect followers in ways that are quantitatively greater and qualitatively different than the effects specified in past theories.” As described by Cannella and Monroe (1997), in contrast to the agency theory of leadership, transformational leadership emphasizes the importance of leaders’ relationships with followers. Key behaviors of charismatic/transformational leaders include articulating a vision, making sense of missions, showing determination, and communicating high performance expectations. The favorable effects of charismatic/transformational leadership behavior on followers include generating followers’ confidence in the leader, making followers feel good in the leader's presence, and obtaining strong admiration or respect from employees (Conger & Kanungo, 1987; House et al., 1991). In contrast, transactional leadership behaviors focus on the motivation of followers through rewards or punishment. According to Burns (1978), transactional leadership is related to an exchange relationship that meets the exchange partners’ own self-interests. Transactional leadership behaviors primarily aim at the maintenance and monitoring of organizational operations. These leadership behaviors shape the strategies to be pursued by the organization, develop the structure to implement them, direct subordinates' efforts and attention, and correct any mistakes or deviations from expectations. These actions are directed at enhancing organizational performance either through dealing with the tasks directly or through influencing the behaviors of followers.

Clearly, charismatic/transformational and transactional leadership involve two types of behavior. One focuses on the tasks or performance of the firm, such as planning, articulating the vision or goals for the organization, monitoring subordinate activities, and providing necessary support, equipment and technical assistance. The other focuses on relationships with employees, including being supportive of and helpful to subordinates, showing trust and confidence in employees, being friendly and considerate, trying to understand subordinates' problems, showing appreciation for a subordinate's ideas, and providing recognition for subordinates' contributions and accomplishments (Yukl, 2002). In fact, the task-oriented and relationship-oriented behavior dichotomy of leadership is rooted in early research work at Ohio State University and the University of Michigan (Stogdill, 1974).
In an empirical study of Chinese organizations, Chen and Farh (1999) demonstrated that transformational leadership behaviors could be grouped into two higher-order factors, one relationship oriented and the other task-oriented. They further showed that relationship-oriented leadership behaviors have stronger impacts than do task-oriented leadership behaviors on employees’ in-role performance, organizational citizenship behaviors, and job satisfaction. In the current study, we focus on these two higher-order factors of task- and relationship-oriented leadership behaviors of CEOs.

2.2. Task- and relationship-oriented behaviors of CEOs

CEOs influence organizational effectiveness mainly through the roles they play and the behaviors they display during the process of playing their roles (Quinn, 1988). Hooijberg and Quinn (1992) suggested that effective leaders are not only cognitively complex but also able to perform a diverse set of roles and skills in the explicit behavioral realm. Behavioral complexity is “the ability to act out a cognitively complex strategy by playing multiple, even competing roles, in a highly integrated and complementary way” (Hooijberg & Quinn, 1992, p.164). Boal and Hooijberg (2000) further proposed that behavioral complexity allows a CEO to communicate with different stakeholders effectively and to increase his/her capacity to change the organization.

Leadership behaviors are embedded in the executive leadership roles identified in the Competing Values Framework (Quinn, 1988; Quinn & Cameron, 1988). Hart and Quinn (1993) proposed a broad portfolio of CEO leadership roles including vision setter, motivator, analyzer, and task master. The vision setter role is related to defining and articulating the firm’s basic purpose and future directions. To fulfill this role, the executive leader must spend considerable time monitoring and studying emerging social, economic, and technological trends. During this process, the leader selects relevant information from the environment and sets up an appropriate vision for the organization. The motivator role refers to translating the vision of the firm into a “cause worth fighting for”. To play this role, the leader must create a sense of excitement and vitality within the organization to motivate employees to accomplish the organization’s goals.

In playing the analyzer role, the leader focuses on making the internal operating system efficient. An executive leader sets the context, shapes the decisions made by the operating system, and maintains control over the process of management. Finally, in the task master role, the top manager focuses on the firm’s performance and responsibilities. In a narrow sense, this role is associated with economic performance and the demands of the market. In a broader sense, it results in social performance and responsibility. To fulfill this role, an executive leader needs not only to influence decisions made at lower levels, but also to make trade-offs explicit and to allocate resources to the highest priority activities.

A close examination suggests that these four roles are consistent with task-oriented and relationship-oriented leadership behaviors. The roles of analyzer and task master are concerned with how CEOs “evaluate proposed projects” and “make trade-off decisions and allocate resources” (Hart & Quinn, 1993: p.558). Through these roles, top managers focus on the efficient management of the internal operating systems of their firms to serve existing product markets. The direct results of these two roles are effective management systems, sustainable organizational structures, and solid financial performance. The role of vision setter requires a CEO to be sensitive to changes in the environment, scan the environment for information relevant to firm development and growth, and set up a relevant vision for the organization. The company’s mission and goals will align behaviors of employees with their efforts. The financial performance of the firms will consequently improve. This vision setter role therefore also relates to a task focus and may have implications on firm performance.

On the other hand, the role of motivator is directly linked to employees’ attitudes towards their organization. Specifically, the motivator role helps the CEO to maintain contact with followers and to ensure that basic and expected values are shared among employees. Through behaviors that challenge “followers with new goals and aspirations” and create “a sense of excitement” (Hart & Quinn, 1993: p.558), a CEO can communicate the vision of the organization among followers through personal examples and inspirational articulation. Therefore, employees led by CEOs who are strong motivators are more likely to understand the assumptions of their leaders, share their values, and identify with their mission and values. They will express high levels of organizational commitment, perceive support from the organization as a whole, and have a positive perception of fairness.

The results of empirical research showed that leaders who perform multiple leadership roles enjoy high levels of organizational effectiveness (Denison, Hooijerj & Quinn, 1995; Hart & Quinn, 1993). This is consistent with research that showed that high-performing managers possess high levels of cognitive complexity (e.g., Streufert & Swezey, 1978) and are able to utilize multiple frames of reference in dealing with problems (Dreyfus, Dreyfus, & Athanasian, 1986). Denison et al. (1995) also showed that more effective executives played a greater variety of leadership roles than did their less effective counterparts.

In summary, the literature on executive leadership roles converges on identifying two meta roles played by CEOs, one directly focusing on influencing the accomplishment of the organization’s tasks and the other focusing on motivating employees to have organizational commitment and to pay attention to accomplishing organizational goals.

2.3. Leadership behaviors, employees’ attitudes, and firm performance

There is robust evidence that employees’ attitudes aggregated at the firm level have a positive relationship with the performance of the firm (e.g., Harter et al., 2002; Koss, 2001; Ostroff, 1992; Ryan et al., 1996; Schleicher et al., 2004; Schneider et al., 2003) and a negative relationship with employee turnover (Ryan et al., 1996). Employees’ attitudes could be affected by a wide variety of factors, including supervisory support, coworker influences, and the employee’s own personal attributes. We argue that the CEO is another causal agent by inducing positive attitudes among employees (such as perceived organizational support and
organizational commitment). In this way, employees' attitudes are a mediating link between CEO leadership behaviors and firm performance.

One possible way in which aggregated employees’ attitudes mediate the link between CEO behaviors and firm performance is through the idea of “shared values”. According to Ryan et al. (1996), if employees of an organization have shared values, they are more likely to cooperate and collaborate with others, which in turn improve organizational performance. The CEO can motivate employees to work hard to accomplish goals by using rewards and punishments. More importantly, the charismatic behaviors of the CEO can motivate employees to do “more than they are expected to do” (Yukl, 1989: p.272). Such behaviors by the CEO help employees to transcend their own self-interests for the sake of achieving the missions of their groups and/or organizations (Avolio & Bass, 1987; Shamir et al., 1993).

Studies have largely confirmed a positive relationship between charismatic (Bryman (1992)) or transformational (Podsakoff, MacKenzie, Moorman, & Fetter, 1990; Podsakoff, MacKenzie, & Bommer, 1996) leaders' behaviors and employees' satisfaction, organizational commitment, trust, self-reported effort, and supervisor-rated performance at the individual level. Evidence on the relationship between CEO leadership behaviors and employees' attitudes is more limited. In a recent meta-analysis study, Judge, Piccolo, and Illies (2004) reported that the consideration dimension (relationship-oriented behavior) and the initiating structure dimension (task-oriented behavior) of leadership behavior at the supervisory level have a moderately strong relationship with an employee's job satisfaction, job performance, and group performance. Consequently, we expect that task-focused behaviors of the CEO will be directly related to firm performance and that their relationship-focused behaviors will be associated with positive employees' attitudes and, through these attitudes, firm performance. Our hypotheses are formally stated as follows:

Hypothesis 1. The CEO's task-focused behaviors will relate positively to organizational performance and his/her relationship-focused behaviors will relate positively to employees' positive attitudes toward the organization.

Hypothesis 2. Employees' attitudes toward the organization will mediate the relationship between the CEO's relationship-focused behaviors and firm performance.

When discussing the “conditions” under which and “when” CEOs have influence on firm performance, Boal and Hooijberg (2000) argued that in situations with wide latitude of choice and action, individual differences in top managers may play key roles in strategic choices and organizational outcomes. Cannella and Monroe (1997) proposed that “Strategic leadership theory also implies that executives need discretion, or latitude of action, in order to serve effectively as top managers” (Cannella & Monroe, 1997: p.220). Such discretion may increase the capacity of CEOs to make a difference. We tested the above hypotheses using CEOs in China because they operate in an environment characterized by rapid environmental shifts (Tsui, Schoonhoven, Meyer, Lau, & Milkovich, 2004). In highly uncertain and unstable environments, the chief executive can provide the organization with direction about the future. The transition from a planned economy to free market competition in China has created a highly uncertain task environment for all firms. The context mirrors the condition of environmental uncertainty under which CEOs would have more discretion (Hambrick & Finkelstein, 1987). Further, due to the lack of regulations and standard norms of modern enterprise systems, CEOs in China have great latitude for discretion in a society characterized by high power distance and traditional values of deference to authority and submission (Yang, 1993).

In linking CEO leadership behaviors to firm performance, we focus on the attitudes of employees who are proximal to the CEO in the organizational hierarchy, i.e., the middle managers of the company. Middle managers have more opportunities to observe the behaviors and actions of the CEO than do employees at lower levels in the hierarchy. They are responsible for carrying out the goals set by top managers. They are involved in the day-to-day workings of the company and they may provide valuable information to top managers to improve the organization's bottom line (Schilit, 1987). Through positive attitudes, these middle managers will work toward achieving a high level of firm performance and will be committed to the organization. Turnover among experienced managers is costly to the firm. Their positive attitudes will further develop a positive climate and they will serve as positive role models to lower-level employees. While the middle managers may not represent the entire organization, their attitudes toward the firm are important in their own right due to the above reasons. Findings from this study will contribute to understanding leadership in China and also to leadership research in general.

3. Method

The present study proceeded in two stages. The first stage was to develop a scale to measure CEO leadership behaviors that was meaningful in the study context of China. We started with existing measures of charismatic/transformational and transactional leadership, but supplemented these measures through an inductive effort to “localize” some of the indicators (items) and with a scale-development factor analysis using responses from 542 managers and professional employees. In the second stage, structural equation modeling analysis with a new sample of 739 middle managers and their supervisors in 125 companies was used to test our hypotheses.

3.1. Scale-development study

We employed an inductive approach to identify CEO behaviors that are important to firm performance in the Chinese context for two reasons. First, China is experiencing a very fast change from a planned economy to a market-oriented economy. The
transitional economy and its deep culture suggest that CEOs may play roles that may be different from the roles of their counterparts in the West. We believed that the inductive approach would help us to discover behaviors that may be different from the existing measures of task and relationship orientations. Second, House et al. (1999) argued that the attributes rooted in a given culture are predictive of the practices in that culture. Contextualization of existing leadership scales, using an inductive approach, is necessary to ensure validity in the given culture (Farh, Cannella, & Lee, 2006). This approach requires gathering descriptions of concrete incidents of leader behaviors and then classifying them into a number of categories by content analysis with an agreement index constructed using multiple judges (e.g., Kerlinger, 1986; Farh, Early & Lin, 1997). This inductive approach is particularly important in cross-cultural research where construct and measurement equivalence cannot be taken for granted (Van de Vijver & Leung, 1997).

3.1.1. Item generating and category sorting

Two samples were used in the scale-development study. The first sample was for generating items, and it consisted of 65 managers participating in a management course at a university in a major city in north China. The managers came from different companies in a wide range of industries including high-tech, service, manufacturing, etc. Fifty-one percent of them were middle-level managers and 49% were senior managers. Their average age was 37 years and their average company tenure was ten years. On a blank sheet of paper, each respondent answered this open-ended question anonymously: what kind of leadership behavior does the CEO in your company exhibit? The respondents could provide up to five responses to the question. Answers were subsequently summarized and given to the participants for class discussion.

The 65 respondents generated a total of 312 statements (approximately 4.8 items per respondent). Following Eisenhardt (1989), Farh et al. (1997), and Tsui, Wang, and Xin (2006), a sorting procedure was employed to analyze the 312 items. Three Ph.D. students majoring in management coded the 312 items. They had taken organizational behavior courses and were therefore familiar with the literature on leadership. However, they did not know the purpose and hypotheses of the study.

The coding process was divided into two steps. First, based on the existing literature, broad definitions of charismatic/ transformational leadership and transactional leadership and several exemplar behaviors were provided. The three Ph.D. students sorted the statements independently using these definitions. They were asked to create categories to group the statements that seemed similar to each other. After sorting the first 100 statements, they met to discuss the categories they had created. The purpose of this sharing was to give the coders a chance to learn from one another and to make the categorization more understandable. After sharing the coding results, each student re-sorted all 312 statements. They could create new categories if any items did not fit the existing categories. Eleven categories were obtained after the first round of coding.

The three raters and the authors discussed these eleven categories. Categories with less than three items were discarded. The three raters re-sorted the items based on the new category system. By the end of this second round of coding, nine categories were retained. These categories were: 1) Being sensitive to the environment, 2) Motivating, 3) Monitoring operations, 4) Interpersonal relationships, 5) Articulating a vision, 6) Being creative and risk-taking, 7) Being benevolent, 8) Authoritative, and 9) Being moral.

The agreement among the three raters on the two rounds of coding was computed. In the first round, the agreement among the three raters was 57.7% and between two raters it was 84.3%. The agreement in the second round of coding was 87.2% among the three raters and between two raters it was 92.6%. We further examined the inter-rater agreement on each of the categories. The agreement on the nine categories among the three coders was from 72.3% to 91.5%. The agreement between two raters was from 83.5% to 95.8%. The results suggest that the coding was reliable.

3.1.2. Scale development

A different sample of 542 managers was used for the scale development. These managers were part-time MBA students at three universities in a major city in north China. The average age of this sample was 31 (SD = 4.43 years) and their average company tenure was five years (SD = 4.87 years). They had an average of six years of post-high school education and 63.8% of them were male. Ninety-three percent of the respondents held management titles (from front line to executive level). The rest were non-management professional-level employees (6.6%).

We selected five most frequently mentioned statements in each of the nine categories to represent the dimensions. Forty-five items were used to measure CEO leadership behaviors. Each item was measured on a five-point Likert scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”) in response to the question of whether their CEOs exhibited the behavior described by the item. The managers completed the survey during a class on leadership, prior to a class discussion on leadership issues. The survey results were given to the class for a subsequent discussion of executive leadership styles in China.

Table 1 presents the results of the exploratory factor analysis with the extraction method of principal axis factoring and Oblimin rotation with Kaiser normalization. It identifies six dimensions with 24 items after a series of factor analyses. Factor loadings for all the items were above 0.50 with no cross loadings of greater than 0.40. The six factors explained 62.35% of the total variance. The six dimensions were labeled as Being Creative and Risk-taking (5 items), Relating and Communicating (5 items), Showing Benevolence (4 items), Articulating a Vision (4 items), Being Authoritative (3 items), and Monitoring Operations (3 items). The alpha coefficients ranged from 0.70 to 0.92.1

1 These six dimensions were briefly reported in a different published paper (the authors names remain anonymous to preserve the principle of blind review). The focus of that paper was leadership profiles involving a cluster analysis of the six dimensions. It had a different purpose and involved other samples not used in this paper. The only commonality was the scale development sample. Since that paper did not present details on the scale development process, in this paper, we provide more detailed information on how these six dimensions were developed.
3.2. The hypothesis testing study

3.2.1. Sample and procedures

The sample used to test our hypotheses consisted of two groups of respondents. The first included top managers from 125 firms, including CEOs (44.8%), vice presidents or senior managers (52.4%). The second were 739 middle-level managers in these firms, including CEOs (44.8%), vice presidents or senior managers (52.4%). A second-order factor analysis using these six dimensions produced two unambiguous factors with their respective a priori dimensions.
companies. The top managers were students in Executive MBA classes of a university in a large city in central China. These students came from many provinces in China. They worked in different industries including telecommunications, information technology, chemical and pharmacy, banking and investing, manufacturing, real estate, trade and commerce, and services. If the student was not a CEO, he or she was asked to give a CEO survey to the CEO in his/her company. A self-addressed envelope was used to return the completed survey by the CEOs.

Each student in the class was asked to invite six to eight middle managers in their companies to complete a questionnaire. The questionnaire included items measuring CEO behaviors and the respondent’s attitude variables (including organizational commitment, perceived organizational support, and perceptions of justice). A self-addressed return envelope was provided to each respondent to mail his/her questionnaires directly to a researcher at the university. Participation was voluntary. An average of six middle managers from each firm returned the questionnaires, for an 83.9% response rate from the original sample.

The average age of the CEOs was 44 years (SD = 7.56 years) and their average company tenure was eight years (SD = 6.34 years). The educational level of the CEOs was six years beyond high school (SD = 1.66 years) and 89.5% of them were males. The average age of the middle managers was 33.7 years (SD = 7.49 years) with an average of four years of education after high school (SD = 2.64 years). They had five years of company tenure on average (SD = 5.81 years) and 483 of the middle managers in the sample (65.4%) were male.

3.2.2. Measures

CEO leadership behaviors were measured using the 24-item scale resulting from the scale-development study. The middle managers were asked to indicate on a five-point scale the extent to which the items described the behaviors of the CEO in their organizations. The scale ranged from 1 (strongly disagree) to 5 (strongly agree). A Confirmatory Factor Analysis (CFA) was conducted. In the CFA, the 24 items loaded on the six a priori dimensions. Furthermore, the dimensions of Articulating a Vision, Being Creative and Risk-taking, and Monitoring Operations loaded on one higher-order factor, namely task-focused behaviors. The dimensions of Relating and Communicating, Showing Benevolence, and Being Authoritative loaded on another higher-order factor, namely relationship-focused behaviors. The goodness of fit indices showed that the overall Chi-square of the model was 839.45 with 245 degrees of freedom; RMSEA was 0.06; GFI was 0.91; CFI was 0.94; NNFI was 0.93; and IFI was 0.94. The coefficient alphas for the six dimensions ranged from 0.69 to 0.89. The factor loading structure from the CFA is provided in Table 1, along with the EFA loadings from the scale-development study.

There is a lack of systematic reliable financial data on Chinese firms (e.g., Peng & Luo, 2000). Therefore, similar to other researchers (Peng & Luo, 2000; Tan & Litschert, 1994; Wang, Tsui, Zhang, & Ma, 2003), we utilized perceptual measures of firm performance. Five items from Tan and Litschert (1994) and Wang et al. (2003) were used to assess the firm’s performance relative to other firms in its industry. The items were profitability, sales growth, asset growth, market share, and competitive status in the firm’s industry. The CEOs provided data on this measure based on a five-point Likert scale from 1, “very low”, to 5, “very high”. We also asked the CEOs to provide information on the firm’s actual assets, sales, and profits. As we suspected, many executives declined to provide this information (suggesting that the data were not available, not seen to be reliable, or not for public consumption). We obtained this information from 69 executives. The correlation between the perceptual measures of performance and ROA (return on assets) was 0.26 (p < 0.05) and the correlation between the same measure and ROS (return on sales) was 0.37 (p < 0.01). In the Wang, Tsui, Zhang, and Ma (2003) study, the correlation between the perceptual performance measure and ROA was 0.33 (p < 0.05). These correlations gave us some confidence about the validity of the subjective measures. The coefficient α for the subjective firm performance measure was 0.70.

We used four measures of Employees’ attitudes that focused on the organization rather than on the job or on supervisors. They were perceived organizational support, organizational commitment, perception of the fairness of outcomes (distributive justice) and fairness of procedures (procedural justice) in the organization. These are the most frequently studied employees’ attitudes toward their firms. These attitudes have been found directly and indirectly to influence employees’ psychological and behavioral commitments to the firm, their task performance and their extra role behaviors. Thus, the behavioral outcomes of these attitudes should contribute to firm performance as a whole. Petty and Bruning (1978) demonstrated that employees’ attitudes accounted for 45% of the variance in direct administrative costs across 51 public welfare organizations.

Perceived Organizational Support (POS) was measured by eight items (Eisenberger, Cummings, Armeli & Lynch, 1997). The Chinese version of this scale is available from Chen, Aryee, and Lee (2005). Sample items include “My organization really cares about my well-being” and “Help is available from my organization when I have a problem.” The scale’s reliability coefficient was 0.87. Organizational Commitment was measured by the scale developed by Mowday, Porter, and Steers (1982) and was used in a study in China (Chen, Tsui, & Farh, 2002). Nine items from this scale were selected by excluding items with reverse wording. The coefficient α for this measure was 0.88. A scale developed by Farh et al. (1997), who conducted their study in Taiwan, was used to measure perceptions of Procedural and Distributive Justice. Each construct was measured using eight items reflecting different types of fairness such as pay, promotion, and evaluation decisions. The coefficient alphas of these two measures were 0.93 and 0.88, respectively. All the items relevant to employees’ attitudes used in the present study were measured by a five-point Likert scale with “1” for strongly disagree and “5” for strongly agree. They were translated into Chinese and validated in the Chinese context in previous studies. CFA was used to confirm their factor structures. The model with four factors plus one overall second-order factor structure (i.e., overall attitude) showed reasonable fit to our data, with a Chi-square value of 1380.04 with 460 degrees of freedom, RMSEA of 0.07, CFI of 0.89, NNFI of 0.88, and IFI of 0.89.

We included several control variables that may influence firm performance and employees’ attitudes. Firm size was measured by the total number of employees in the company. Firm age was the years since founding. Industry was measured by categorical
variables and eight dummy codes were used. The CEOs’ age, gender, educational level, and company tenure (measured in years) were additional control variables in this study.

3.2.3. Aggregation and preliminary analyses

Following the common approach used in unit-level research (e.g., Ostroff, 1992; Ryan et al., 1996), we aggregated individual-level variables to the firm level. Since the data on CEO leadership behaviors and employees’ attitudes were from the same source, we separated the responses from each firm randomly into two groups in order to avoid common method bias (Ostroff, Kinicki, & Clark, 2002). The data from the first random half of middle managers were used to compute the CEOs’ behaviors scores. The data from the second random half were used to compute the employees’ attitudes scores. Before this procedure, we computed Rwg (James, Demaree, & Wolf, 1984) on all the variables from each firm to make sure that there was agreement among the middle managers and that it was acceptable to aggregate individual-level variables to the firm level. We first computed Rwg to assess within-group agreement. We then computed ICC (intraclass correlation) (1) and ICC (2) to evaluate the variance between groups and within groups. ICC (1) compares the between-group sum of squares to the total sum of squares. It represents the proportion of variance in individuals’ perceptions accounted for by differences in groups (James et al., 1984; Ostroff, 1992). ICC (2) is a measure of proportional consistency of variance and can be computed by comparing the mean-square-between minus the mean-square-within to the mean-square-between based on the results of a one-way analysis of variance (James et al., 1984; Ostroff, 1992). Table 2 shows the agreement indices for the six leadership scales and the four attitude scales. The Rwg values ranged from 0.58 to 1.00 with a mean of 0.90 for both leadership behaviors and attitude variables. The ICC (1) for CEO leadership behavior and attitudinal measures ranged from 0.12 to 0.40 with an average of 0.31. The ICC (2) ranged from 0.62 to 0.98 with an average of 0.79. These results confirm a high level of agreement and reliability in the leadership and attitude ratings.

Due to the small sample size and many industry dummy codes, we performed an ANOVA to test the differences in firm performance in different industries. The results showed no significant differences among the eight industries (F(7114) = 0.61, p < 0.77). We also examined the effects of other control variables on firm performance and employees’ attitudes. Only the CEO’s age was significantly correlated with Being Creative and Risk-taking and with Monitoring Operations, r = −0.21 and r = −0.21, respectively. Firm size was negatively related to Showing Benevolence and Monitoring Operations behaviors, r = −0.18 and r = −0.19, respectively. Given the results from the control variables, we included firm size and CEO age in the hypothesis testing but not the other control variables to conserve statistical power. The means, standard deviations, and inter-correlation values of all the variables at the firm level are presented in Table 3.

3.2.4. Hypothesis testing

We used structural equation modeling (Bollen, 1989) to test our two hypotheses. In the mediation model, task-focused and relationship-focused CEO behaviors were the two latent variables. The former was manifested by the Articulating a Vision, Being Creative and Risk-taking, and Monitoring Operations dimensions, while the latter was manifested by the Relating and Communicating, Showing Benevolence, and Being Authoritative dimensions. Employees’ attitudes were manifested by perceived organizational support, organizational commitment, and the two fairness perceptions. Relationship-focused CEO behaviors were found to relate positively to employees’ attitudes and firm performance, and employees’ attitudes were found to be associated positively with firm performance. Task-focused CEO behaviors were found to relate directly to firm performance. We reduced the number of items measuring firm performance by averaging the items with the highest and lowest factor loadings to form a new indicator of firm performance. Then, the items with the next highest and the next lowest loadings were averaged to form the second new indicator of firm performance. By repeating this process, we had three new indicators for firm performance. This procedure of reducing the number of indicators is common in the literature on structural equation analysis in order to increase the statistical power of the analysis (e.g., Mathieu & Farr, 1991). Lastly, we included CEO age and firm size as control variables for firm performance. We tested the model using the LISREL 8.30 program.

### Table 2

Agreement indices on six CEO leadership behaviors and four employees’ attitudes.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Rwg</th>
<th>ICC (1)</th>
<th>ICC (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO leadership behaviors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being creative and risk-taking</td>
<td>0.96</td>
<td>0.38</td>
<td>0.72</td>
</tr>
<tr>
<td>Relating and communicating</td>
<td>0.92</td>
<td>0.39</td>
<td>0.62</td>
</tr>
<tr>
<td>Showing benevolence</td>
<td>0.89</td>
<td>0.40</td>
<td>0.71</td>
</tr>
<tr>
<td>Articulating a vision</td>
<td>0.89</td>
<td>0.12</td>
<td>0.75</td>
</tr>
<tr>
<td>Being authoritative</td>
<td>0.58</td>
<td>0.38</td>
<td>0.65</td>
</tr>
<tr>
<td>Monitoring operations</td>
<td>0.99</td>
<td>0.40</td>
<td>0.73</td>
</tr>
<tr>
<td>Employees’ attitudes</td>
<td></td>
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<tr>
<td>Perceived organizational support</td>
<td>0.86</td>
<td>0.36</td>
<td>0.89</td>
</tr>
<tr>
<td>Organizational commitment</td>
<td>0.99</td>
<td>0.23</td>
<td>0.93</td>
</tr>
<tr>
<td>Procedural justice</td>
<td>1.00</td>
<td>0.18</td>
<td>0.98</td>
</tr>
<tr>
<td>Distributive justice</td>
<td>0.98</td>
<td>0.26</td>
<td>0.89</td>
</tr>
<tr>
<td>Median</td>
<td>0.90</td>
<td>0.38</td>
<td>0.74</td>
</tr>
<tr>
<td>Mean</td>
<td>0.90</td>
<td>0.31</td>
<td>0.79</td>
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</table>

Note: Based on 739 middle managers in 125 firms, an average of 5.91 managers per firm.
Table 3
Mean, SD, and inter-correlations of CEO leadership behaviors, employees’ attitudes, and firm performance (N = 125).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
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<tr>
<td>1. Firm performance</td>
<td>3.63</td>
<td>0.54</td>
<td>(0.70)</td>
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<tr>
<td>2. Perceived organizational support</td>
<td>3.53</td>
<td>0.44</td>
<td>0.18</td>
<td>(0.87)</td>
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<tr>
<td>3. Organizational commitment</td>
<td>3.80</td>
<td>0.45</td>
<td>0.31</td>
<td>0.78</td>
<td>(0.88)</td>
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<tr>
<td>4. Procedural justice</td>
<td>3.41</td>
<td>0.48</td>
<td>0.20</td>
<td>0.80</td>
<td>0.79</td>
<td>(0.93)</td>
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<td>5. Distributive justice</td>
<td>3.56</td>
<td>0.42</td>
<td>0.23</td>
<td>0.70</td>
<td>0.68</td>
<td>0.87</td>
<td>(0.88)</td>
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<tr>
<td>12. CEO age</td>
<td>43.52</td>
<td>7.56</td>
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<td>13. CEO gender</td>
<td>1.94</td>
<td>0.24</td>
<td>0.03</td>
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<td>14. CEO education</td>
<td>2.24</td>
<td>1.67</td>
<td>0.09</td>
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<td>15. CEO tenure</td>
<td>8.23</td>
<td>6.42</td>
<td>0.13</td>
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<tr>
<td>16. Firm age</td>
<td>15.79</td>
<td>20.96</td>
<td>0.07</td>
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</table>
| Note: Firm size is measured with logarithm values of employee number in the firm. * p<0.05. ** p<0.01.
4. Results

Fig. 1 shows the estimated path coefficients related to the direct effects of CEOs' behaviors and the mediating effects of employees' attitudes on firm performance. The overall Chi-square of the model was 145.76 with 87 degrees of freedom ($p < 0.01$); RMSEA was 0.08; IFI was 0.95; CFI was 0.95; and NNFI was 0.93. These results and the significance of the path coefficients indicate that there was a good fit between the data and the hypothesized mediating model.

We also compared the hypothesized model with two nested alternative models. In the first model, we specified a path from task-oriented behavior to employees' attitudes. The overall Chi-square of the alternative model was 143.12 with 86 degrees of freedom ($p < 0.01$); RMSEA was 0.08; IFI was 0.95; CFI was 0.95; and NNFI was 0.93. The chi-square difference was 2.40 with 1 degree of freedom, which was not significant. The finding suggests that adding the path from task-oriented behavior to employees' attitudes does not significantly improve the hypothesized model. In the second alternative model, we removed the path from relationship-oriented leadership behaviors to firm performance. The overall Chi-square of the alternative model was 150.53 with 88 degrees of freedom ($p < 0.01$); RMSEA was 0.08; IFI was 0.94; CFI was 0.94; and NNFI was 0.92. The difference in chi-square, 4.77 with 1 degree of freedom, was significant. This result suggests that the hypothesized model was superior to the alternative model.

The overall model showed that firm performance was explained well by aggregated middle managers' attitudes and task-focused CEOs' behaviors ($R^2 = 0.28$). Specifically, organizations whose middle managers expressed more positive attitudes towards their organizations had higher levels of firm performance ($\beta = 0.36$, $p < 0.05$). Task-focused CEO leadership behaviors were also directly related to firm performance ($\beta = 0.53$, $p < 0.05$). Employees' attitudes were strongly influenced by relationship-focused CEO behaviors ($\beta = 0.45$, $p < 0.01$). The relationship-focused CEO behaviors had no direct effects on firm performance ($\beta = -0.32$, n.s.). The control variables of firm size and CEO age were not significant.

5. Discussion

Building on strategic leadership theories in the Western literature, we inductively identified two sets of CEO leadership behaviors in the Chinese context. The six-dimension measure of CEO leadership behavior has some Chinese characteristics at the behavioral level but also reflects the dual focus on the relationship and task domains of an executive's job. Results showed that task-focused CEO leadership behaviors are directly linked to firm performance. Relationship-focused behaviors relate directly to firm performance and have a mediating effect on the relationship between task-focused behaviors and firm performance.
employees’ attitudes and indirectly to firm performance. These results confirm our argument that CEOs can achieve higher levels of firm performance by both focusing on task performance directly and inducing positive attitudes of employees through their relationship-oriented behaviors.

The existing research on CEO characteristics and organizational effectiveness is fitting of the metaphor of “the blind men and the elephant” with each of the studies only touching on one CEO characteristic. For example, Hambrick et al. (1996) focused on demographic variables; Waldman et al. (2001) on charismatic leadership behaviors; and Peterson et al. (2003) on the personalities of top managers. Our study adds another piece to this larger puzzle regarding the role of the CEO by contributing to the behavioral theory of CEO leadership. The dimension of “Articulating a Vision” is critical for the CEO to instill aspiration, energy, and intensity in pursuing organizational goals. The “Being Creativity and Risk-taking” and “Monitoring Operations” dimensions are relevant during the process of operating and managing the organization’s tasks. The behaviors of “Relating and Communicating” and “Showing Benevolence,” while echoing the importance of relationships in China (Yang, Yu, & Yeh, 1989), may not be unique to the Chinese context. They may be relevant across contexts. Future research should explore or confirm the relevance of these dimensions in other social-cultural settings. Even the dimension of “Being Authoritative” may not be a culture-specific Chinese behavior. For example, abusive supervision, a manifestation of dysfunctional workplace behavior, has attracted the attention of academic researchers in China (Aryee, Sun, Chen, & Debrah, 2008) and the U.S. (Tepper, 2000). Studies could compare the prevalence and influence of such leadership behavior in different cultures. Future research could explore the specific function of this dimension on firm performance and employees’ attitudes since it has negative and significant correlations with other relationship-oriented behaviors as well as with the four employees’ attitudes variables.

5.1. Theoretical implications

The present findings extend current theories by extending to the behaviors of top managers and demonstrating that the behaviors of the CEO not only influence firm performance, but also the middle managers’ attitudinal responses. These results offer a glimpse into the “black box” of leadership behaviors (e.g., Carpenter et al., 2004) and provide confirmatory evidence in a different national context that “organizations that have more satisfied employees are more productive and profitable than organizations whose employees are less satisfied” (Ostroff, 1992: p.963).

The current study focused on the leadership behaviors of the chief operating officer. Future research could also study the behavior of the entire top management team. The top management team may have behavioral tendencies that mirror the behaviors of the CEO if the team is characterized by demographic homogeneity. However, the top management team members also may not share all the behavioral characteristics of the CEO, especially in teams with demographic and personality heterogeneity. Future research should include both demographic and behavioral characteristics of both the CEO and the top management team for a more comprehensive assessment of executive leadership influences on the organization. The concept of team behavior at the executive level may be worthy of theoretical and empirical attention.

The employees surveyed in this study were middle managers who would more likely have access to and interaction with the CEO than would lower-level employees. This access provides them with opportunities to observe the behaviors of the CEO. This also means that they would be more directly influenced by the behaviors of the executive leader. Would the mediating role of attitudes be generalizable to employees at lower organizational levels? It seems plausible that favorable attitudes, such as perceptions of organizational support, justice, and commitment, of employees at all levels contribute to positive firm outcomes. However, would such attitudes at lower organizational levels be influenced by the CEO, by middle managers, or by their immediate superiors? Further research should examine the effect of the CEO relative to middle managers and the immediate superior on lower-level employees. Would the CEO’s leadership behavior cascade down the hierarchy such that their influence on lower-level employees is through the leadership behaviors of managers below them?

This study was conducted in a context where managers are likely to have great latitude for discretion due to both institutional and cultural reasons. Could societal culture play a moderating role between CEO behaviors and employees’ attitudes? Future research could explore the joint influence that national culture and the environment have on executive leadership behaviors and firm outcomes.

5.2. Limitations

The study has several limitations. The first is the use of a cross-sectional design. Although it is argued that CEO leadership behaviors have effects on employees’ attitudes and on firm performance, one can still make the argument that high levels of firm performance lead to positive employees’ attitudes, or that high levels of firm performance lead to a positive evaluation of CEO leadership behaviors by the top managers. Such attribution is clearly possible. A longitudinal research design is needed to confirm the causal relationship between CEO leadership behaviors, employees’ attitudes, and firm performance. However, by using multiple sources of data (top managers and middle managers) and splitting the sample of middle managers into two random sub-samples, we have at least ruled out common method variance as a possible source of bias.

The second limitation of the study is the measure of firm performance. Though the use of a subjective measure of performance is not ideal, this is a pragmatic constraint in conducting research in China at this stage due to the lack of reliable performance data and the variety of firms and industries in our sample, making it difficult (if not impossible) to have objective performance indicators that are meaningful and valid for all firms. Further, a self-serving bias by the CEOs might have reduced the variance in performance across the firms. Future research could include other indicators of organizational effectiveness to assess the impact of
the CEO. For example, the CEO deals with multiple stakeholders, such as employees, customers, suppliers, and the community in which the organization is located. Assessment by these stakeholders might provide alternative measures of CEO effectiveness, recognizing that a firm’s financial performance is but one aspect of an organization’s overall effectiveness.

5.3. Practical implications

In addition to the theoretical implications, the current study makes practical contributions. The results suggest that both task-oriented and relationship-oriented leadership behaviors are important for the CEO. Ideally, a CEO should be able to demonstrate both types of behaviors. Such behavioral flexibility is important to strategic leadership according to Boal and Hooijberg (2000). If a CEO is inclined toward only one type of behavior or is singular in focus, the missing behaviors should be provided by another executive in the top management team to ensure the firm’s optimal performance. Given the young age of these Chinese CEOs (average age of 43), executive education that aims at developing the full range of leadership skills of CEOs might be a highly advisable course of action for Chinese companies.

6. Conclusion

This study makes several contributions to the literature. First, this study provided evidence that CEO leadership could influence organizational performance through inducing positive attitudinal responses of the company’s middle managers. Second, the mediating role of employees’ attitudes enriches the content of upper echelon theory by revealing one of the mechanisms through which executive leaders influence firm performance. Third, this study offers some culture-specific insight about executive leadership. Lastly, this study suggests some avenues for further exploration of the complex relationship between leadership behavior, employees’ responses, and firm outcomes. Despite almost 100 years of research and many thousands of studies on leadership (Bass, 1990) and a rejuvenation of interest in executive leadership in the past 20 years (Boal & Hooijberg, 2000), the field does not yet have definitive knowledge about the role of the CEO in the firm. Much remains to be explored on how, when, where and why CEOs influence firms. We hope that the current study adds another small piece to this large puzzle.

Acknowledgments

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References


