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# Doing Well by Doing Good? Analyzing the Relationship Between CEO Ethical Leadership and Firm Performance

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**Abstract** Business ethics and firm economic performance have traditionally often been regarded as mutually exclusive ends. We challenge this "either-or" belief and analyze when and how ethical firm leadership and firm performance may harmonize well. In extension of earlier research on ethical leadership and performance at the individual and team level, we study the context–dependency of the organization level relationship between CEO ethical leadership and firm performance. We propose a moderated mediation model of the link between CEO ethical leadership and firm performance, identifying mediating (organizational ethical culture) and moderating (organizational ethics program) variables unique to the organization-level of analysis. CEO ethical leadership is argued to work through organizational ethical culture which promotes firm performance under the condition that there is a strong corporate ethics program in place. Results from a multisource cross-sectional study, in which we surveyed 145 participants from 32 organizations and validated organizational performance ratings by objective performance data, showed support for our conceptual model.

**Keywords** CEO leadership · Corporate ethics program · Ethical leadership · Firm performance · Organizational ethical culture

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Business ethics and firm profitability have traditionally often been conceptualized as opponents. In a recent survey of 2,500 UK workers by the *Institute of Leadership & Management*, the majority of chief executive officers were seen as prioritizing financial gains over ethical considerations (cf. Groom 2011). The institute's chairman pointed out: "employees, customers and shareholders expect ethical values to be at the heart of business decisions. The fact that so many leaders and organizations are perceived not to have that is a cause for serious concern and attention." Many leaders still seem to—explicitly or implicitly—believe that they have to choose between doing good and doing well. But what if this "either-or" belief was false? What if there are certain conditions under which CEO ethical leadership and firm performance can harmonize well?

Ethical leadership has become a "hot topic" in leadership research and the field is growing very rapidly. However, the "grand question" of the relationship between CEO ethical leadership and firm performance is still open (Brown and Treviño 2003, p. 169). Whereas studies at the individual or the team level pointed toward a positive association of supervisory ethical leadership and follower performance (e.g., Brown et al. 2005; Piccolo et al. 2010; Walumbwa et al. 2011), the organization-level relationship between CEO ethical leadership and firm performance presumably is much more complex and may play out fundamentally different (cf. Klein and Kozlowski 2000). CEO leadership involves a broader variety of task roles than supervisory leadership (cf. Mintzberg 1973), addresses a multitude of stakeholders (followers, customers, business partners, applicants, etc.), and is likely to work through different dynamics unique for the organizational level of analysis (cf. Finkelstein et al. 2009). Furthermore, the relationship is likely to be dependent on contextual influences and to require support of formal and manifest ethics structures, because the far-reaching influence that CEO leadership exerts throughout the organization and toward external stakeholders is associated with more indirect and subtle forms than supervisory leadership (Mayer et al. 2009). When moving to another level of analysis, research must consider conceptually as well as empirically how the relationship plays out at the different level of analysis (Klein and Kozlowski 2000), in this case by identifying the unique organization-level mediating and moderating processes.

In the present study, we provide a theoretical and empirical analysis of the relationship between CEO ethical leadership and firm performance, arguing that the relationship between ethical leadership and performance at the organization level is dependent on a strong corporate ethics program. Integrating insights from the literature in strategic management, ethical leadership, and organizational culture, we present a conceptual model which involves organizational ethical culture as a mediating variable and the organizational ethics program as a moderating variable (see Fig. 1). Upper echelons theory (Hambrick and Mason 1984) postulates that organizational outcomes are reflections of CEOs' characteristics, values, and (leadership) behaviors but empirical research on the intervening processes is limited. From the functionalist view dominant in organizational culture research (cf. Tsui et al. 2006), CEOs are seen as the primary source of influence in transmitting, modifying, and maintaining cultural values (Davis 1984) who can significantly shape employees' thinking, feeling, and conduct, in other words organizational culture (cf. Schein 2004). Applying this general logic to *ethical* leadership, we argue that CEOs with strong personal integrity who put ethics in the center of their decision-making and demonstrate just and responsible leadership create shared ethical values and build an ethical culture at the organizational heart. Because informal cultural signals regarding ethics are intangible and may be vague, we propose that they need to be supported by formal elements—an ethics program that comprises documented, standardized, and tangible policies and procedures (Falkenberg and Herremans 1995)—to realize their full performance-stimulating potential. Only under the condition of a strong corporate ethics program, organizational ethical culture is expected to promote employee productivity and pro-social behavior, reduce employee deviance (e.g., Brown et al. 2005; Mayer et al. 2009), and foster trust of business partners and loyalty of customers, thereby contributing to heightened organizational performance.

## Theory and Hypotheses Development

In the following, we build our conceptual model step by step. First, we introduce upper echelons theory (Hambrick and Mason 1984) as the theoretical background of our analysis and define the independent and dependent variable of the present study—i.e., CEO ethical leadership and firm performance. Subsequently, we outline how CEO ethical leadership works at the organizational level by identifying organizational ethical culture as the underlying mediating mechanism through which CEO ethical leadership can influence firm performance. Then, we argue that the impact of organizational ethical culture on firm performance is contingent on a strong corporate ethics program. Both the mediator (organizational ethical culture) and the moderator (corporate ethics program) of the relationship between CEO ethical leadership and firm performance belong to the organizational ethical infrastructure, yet represent distinct and complementary aspects: Whereas organizational ethical culture refers to the informal and intangible elements of the organizational ethical infrastructure, the corporate ethics program comprises the formal and tangible control elements (Kaptein 2009; Treviño et al. 1998).

### Upper Echelons Theory: CEO Ethical Leadership and Firm Performance

Grounded in Child's (1972) notion that top managers' strategic choices affect firm performance, upper echelons theory presumes that strategic decision-making takes place in uncertain, complex, and ambiguous situations, in which top managers' experiences, values, and personalities

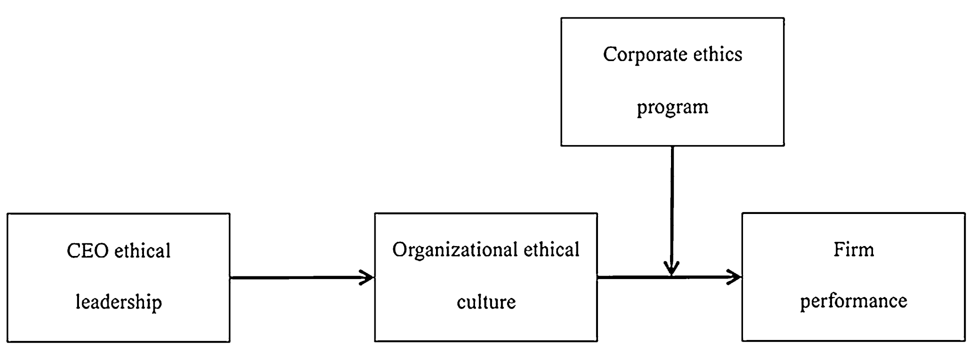


**Fig. 1** A model of the relationship between CEO ethical leadership and firm performance

determine which stimuli are perceived and how this information is interpreted. Thus, the personal construal of the situation greatly impacts managers' strategic choices and decisions (Hambrick 2007; Hambrick and Mason 1984). As a result, organizations and their performance outcomes are seen as reflections of the personal characteristics embodied by the top management, particularly by the chief executive officer (CEO) (Finkelstein et al. 2009). There is sound empirical support for the central proposition of upper echelon theory, indicating that CEO characteristics indeed are significantly related to firm performance and that this link is valid in diverse national and industry contexts and for different organizational life cycles (see Carpenter et al. 2004, for a review). However, because of the great difficulty to obtain psychometric data on CEOs and top management, the majority of this research focused on examining readily observable CEO characteristics such as age, tenure, or functional background, assuming that these variables represent acceptable, even if imprecise and incomplete, proxies of the underlying psychological constructs of interest (such as leader personalities, values, and leadership behavior) (cf. Hambrick 2007; Waldman et al. 2004). In response, massive criticism surfaced, pointing out the deficient construct validity of such demographic indicators and emphasizing the need for an improved understanding of the underlying individual cognitions and behaviors and the mediating processes by which they influence firm performance (Boal and Hooijberg 2001; Carpenter et al. 2004; Priem et al. 1999; Smith et al. 1994). Only recently then, empirical efforts have been increasing to study more directly the impact of CEO leadership on firm performance, notably charismatic leadership (Waldman et al. 2004), transformational leadership (Ling et al. 2008), empowering leadership (Carmeli et al. 2011), and task and relationship-oriented leadership (Wang et al. 2011). CEO ethical leadership has not been in the focus of strategic management research yet, however.

Brown et al. (2005, p. 120) viewed ethical leadership as "the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision making." While this definition is widely used in the management literature (e.g., Detert et al. 2007; Mayer et al. 2009; Piccolo et al. 2010; Walumbwa and Schaubroeck 2009), it has also been criticized for its relativistic content (cf. Eisenbeiss 2012): what exactly is "normatively appropriate conduct?" Giessner and van Quaquebeke (2010, p. 43) noted regarding Brown et al.'s (2005) definition that "while this definition leaves little to argue with, it also provides little to work with." Recent work on ethical leadership (Eisenbeiss 2012; De Hoogh and Den Hartog 2008; Johnson 2009; Kalshoven et al. 2011; Riggio et al. 2010) emphasizes more strongly the value orientation in ethical leadership and differentiates between sub-components of ethical leadership including leader humane/people orientation, integrity, fairness, temperance, and responsibility. In accordance with these multidimensional approaches to ethical leadership (Kalshoven et al. 2011; Resick et al. 2006), we see CEO ethical leadership as a higher level construct consisting of the following sub-components: people orientation, integrity, fairness, responsibility, and moderation.

The people orientation component of CEO ethical leadership seems to lie at the core of ethical leadership and includes treating other people with dignity and respect, being compassionate, altruistic, and supporting, not harming others nor violating their rights (Kalshoven et al. 2011; Resick et al. 2006). Ciulla (1995) argued that respect for the rights and dignity of others presents the fundamental basis of ethical leadership. The integrity component of CEO ethical leadership relates to leader word-deed alignment, trustworthiness, and his or her ability to determine and to engage in morally right behavior (Den Hartog and De Hoogh 2009; Resick et al. 2006; Simons 2002). The fairness component of CEO ethical leadership has also been identified as a key element of ethical leadership and comprises principled decision-making, equal access to information, and no practice of favoritism or discrimination (Brown et al. 2005; Den Hartog and De Hoogh 2009; Resick et al. 2006). Treviño et al. (2003) found that leader behaviors reflecting fair treatment of employees and consistent decision-making strongly contributed to perceptions of ethical leadership. The responsibility component of CEO ethical leadership includes having a long-term focus on organizational success, valuing sustainable relationships with business partners, being concerned about the community, and protecting the environment (De Hoogh and Den Hartog 2008; Ferdig 2007; Kalshoven et al. 2011; Maak and Pless 2006). The moderation component of CEO ethical leadership, which has been highlighted by Eisenbeiss (2012) and Riggio et al. (2010), relates to leader behaviors and attributes such as being temperate and considerate, not always occupying the focus of attention, and finding the balance between extreme ideas, behaviors, decisions, and goals.

With regard to the consequences of ethical leadership, previous research has focused on the individual and team level, providing some evidence for a positive relationship between ethical leadership and leader effectiveness, individual follower performance or group organizational citizenship behavior (e.g., Brown et al. 2005; Kalshoven et al. 2011; Mayer et al. 2009) but neglected the organization-level of analysis. So far, there has been no empirical study linking CEO ethical leadership to organizational economic performance. We argue that, under certain conditions, CEO ethical leadership can positively influence firm performance, defined as the economic outcomes of an organization (Delaney and Huselid 1996). CEO ethical leadership conveys moral principles to organizational employees and role-models ethical conduct, thereby enhancing organizational citizenship behavior as well as in-role performance at the individual and at the group-level (cf. Mayer et al. 2009; Piccolo et al. 2010; Walumbwa et al. 2011, 2012) and decreasing counterproductive work behavior at the individual and at the group-level (cf. Avey et al. 2010; Mayer et al. 2009). When individual employees and organizational groups support each other instead of competing with each other and refrain from unethical behavior such as stealing, mocking, or coming late to work, organizational productivity and efficiency should be enhanced (Podsakoff et al. 2009). Furthermore, CEO ethical leadership is also expected to foster stakeholders' trust in the righteousness of the organization and thus to promote loyal and reliable business partner relationships, which help reduce costs of acquisition and negotiation and thus positively contribute to organizational performance (cf. Eisenbeiss 2012). Some empirical indication for a positive relationship between CEO ethical leadership and organizational performance may be drawn from the study conducted by De Hoogh and Den Hartog (2008) which showed a positive link between CEO ethical leadership and the perceived top management team effectiveness, even though top management team effectiveness should not be simply equated with firm performance.

Because the direct interaction of CEOs with individual organizational members may become increasingly unlikely in medium- and large-sized organizations, we argue that organizational ethical culture is the mechanism through which CEOs convey their ethics-related message and their moral principles to employees. Additional mechanisms by which ethical leadership works include social learning (cf. research from Brown et al. (2005) on the influence of ethical leadership on individual employee behaviors) and cascading effects through which CEO leadership impacts supervisory leadership which in turn influences group outcomes (e.g., Mayer et al. 2009). In the present study, we are interested in explaining an outcome variable at the organizational level (firm performance) and accordingly focus on an organizational-level variable as the mediating process, i.e., ethical culture. We explain this influence process in greater detail in the following section.

## CEO Ethical Leadership and Organizational Ethical Culture

Organizational culture is based on beliefs, values, and shared perspectives (Sackman 1992) and—as a concept of social construction—refers to a collective state of mind (Hofstede 1984). In accordance, Kaptein (2009, p. 262) defined organizational ethical culture as "the informal control system of an organization … comprising of common values, beliefs, and traditions." Ethical culture includes the crystallized perceptions, experiences, and expectations about the promotion of ethical conduct and the discouragement of unethical conduct in an organization (Kaptein 2008).

Based on Solomon's (1999) virtue-based theory of business ethics, Kaptein (2008) developed a conceptual model of organizational ethical culture which involves the following elements: clarity of ethical expectations, feasibility with regard to the sufficient allocation of resources, time, budget, or equipment, supportability concerning the organizational encouragement of ethical commitment, transparency of ethical and unethical conduct and its consequences, discussability with respect to the opportunity for voice and the review of ethical dilemmas, sanctionability as referring to the employees' beliefs about the reward of ethical conduct and punishment of unethical behavior, and congruency of management and supervisors.

Organizational culture researchers (Davis 1984; Schein 2004) postulated that CEOs are the primary creators and transmitters of organizational culture. CEOs are thought to substantially affect the culture of an organization, because culture and leadership are similar in their functions and in their ways of operation and can mutually influence each other (cf. Giberson et al. 2009; Schein 2004; Schneider 1987). Drawing on upper echelons theory, Berson et al. (2007) argued that the decisions and leadership of the operating CEO shape organizational culture as they provide the basis for shared beliefs, values, myths, and symbols of organizational life. While the founder of an organization is likely to create a certain organizational culture, organizational culture is also subject to change through CEO succession and can be developed intentionally over time. Schein (2004) argued that leaders usually have strong beliefs and convictions about how the world functions, what purpose organizations have to serve, what role they should play in the market-space or society, and what truly motivates people. These basic values and assumptions of the CEO will find an expression in his/her conscious and unconscious behaviors (Tsui et al. 2006) and leave an imprint on what is valued and believed throughout the organization.

CEOs with high integrity and strong moral values are expected to be very sensitive in recognizing and filtering the ethical aspects of a certain decision-making situation, to carefully process such aspects and to put ethical considerations at the heart of their business decisions, thereby communicating their underlying moral value and belief system and positively influencing the development of a shared ethical mindset among organizational members. Driven by their own commitment to meta-values such as humanity, justice, responsibility, and moderation (Eisenbeiss 2012), ethical CEOs are also likely to actively promote ethics to others by setting clear expectations about the desirability of ethical conduct and the disaffirmation of unethical conduct, emphasizing transparency in ethics management or stimulating active debates about ethical questions and dilemmas in the organization—all central aspects of ethical culture (Kaptein 2008).

Corroborating our reasoning, a conceptual analysis by Dickson et al. (2001) suggests that organizational leaders are able to impact ethical culture by role-modeling ethical behavior, determining what is regarded as ethically appropriate and how ethical questions and dilemmas should be dealt with in the organization. Empirical research provides indication for a positive link between ethical leadership and ethical climate (Shin 2012) or ethical unit culture, respectively (Schaubroeck et al. 2012). More indirectly speaking to the issue in a study of related concepts, Walumbwa et al. (2010) found a positive relationship between servant leadership and procedural justice climate, even if this result refers to the group-level and cannot be simply be transferred to the organizational level. In summary, we predict:

**Hypothesis 1** CEO ethical leadership is positively related to organizational ethical culture.

### The Interaction Effect of Organizational Ethical Culture and the Organizational Ethics Program on Firm Performance

However, even if the informal ethical control elements—as embodied in the organizational ethical culture—have the potential to enhance firm performance, we argue that there are specific requirements. To be fully effective, ethical culture needs to be complemented by a more formal counterpart—the formal elements integrated in an organizational ethics program. That is, CEO ethical leadership may affect firm performance through its influence on ethical culture, but whether this influence on culture translates into influence on performance is contingent on an organizational ethics program.

Corporate ethics programs can be defined as the formal and tangible organizational control systems that have been designed and established in order to align employee behavior with certain ethical standards and rules (Treviño and Weaver 2003; Weaver et al. 1999). Ethics codes and policies, training courses, official communication materials, formal reward, monitoring, and sanctioning systems form the essential parts of an organizational ethics program (Kaptein 2009; O'Dwyer and Madden 2006; Tenbrunsel et al. 2003; Weaver et al. 1999). In the following, we outline how organizational ethical culture may positively affect firm performance (i.e., CEO ethical leadership may thus affect performance mediated by its influence on ethical culture) and how the strength of a formal organizational ethics program moderates this relationship.

Organizational ethical culture may impact firm performance through different channels. First, collective cultural beliefs and values about what is morally right or wrong and how seriously ethical problems should be taken can find an expression in employees' behaviors (e.g., Bardi and Schwartz 2003)—i.e., their daily work activities and their interaction with peers and supervisors. For instance, when working in a highly ethical culture which clearly encourages moral principles and supports ethical conduct through generous resource allocation and transparent reward practices, employees may apply these principles, dealing with their colleagues and customers in a decent and just manner, mutually supporting each other, and engaging in organizational citizenship behaviors (McNeely and Meglino 1994), which in turn enhance organizational productivity and efficiency and decrease organizational costs (Podsakoff et al. 2009). Second, when looking at the other side of the coin—i.e., unethical work behavior, ethical culture also conveys informal signals about the (dis)affirmation and sanctionability of unethical conduct and can influence to what extent employees engage in deviant and counterproductive work behaviors—including stealing organizational property, lying, or coming late to work (Stewart et al. 2009). Empirically, there is clear evidence for the detrimental and cost-intensive effects counterproductive behaviors can have on firm performance (Dunlop and Lee 2004). Third, following Kaptein (2008), an organizational ethical culture increases the ethical legitimacy of the organization and can boost stakeholders' trust in the righteousness of the organization. If an organization has strong cultural moral standards and values (e.g., humanity, justice, and responsibility), publicly expresses these values in its strategic decisions and social responsibility activities, it may gain a sound ethical reputation which in turn builds trust of business partners, customers, and further stakeholders. Long-term and resilient relationships with business partners are more likely to develop which can lead to special low-priced contract conditions, increased willingness for negotiation, and ultimately reduced organizational costs. Furthermore, the loyalty of customers may increase, positively influencing sales and the overall firm performance (Loveman 1998).

However, even if informal cultural signals regarding what is considered appropriate and desirable within an organization may provide an important precondition of firm performance, they seem to need to rest on formal control systems to tap their full potential. Corporate ethics programs which consist of documented, standardized, and tangible policies and procedures underline the informal cultural signals (Adam and Rachman-Moore 2004; Weaver et al. 1999), publicly demonstrating how much importance is given to ethics in an organization. For instance, by having an established code of conduct, formal monitoring systems of unethical behavior, professional training programs on ethical leadership, and incentive systems that promote ethical conduct and sanction unethical behavior, organizations make clearly visible and salient for employees that ethical leadership and ethical conduct are taken seriously and regarded as fundamentally relevant and demanded behavioral standards of behavior. Qualitative research from Falkenberg and Herremans (1995) indicated that formal ethical control systems are important guides for employee behaviors and decisions. Via media and word-of-mouth advertising, the integration and implementation of ethics in formal programs may also eradiate to external stakeholders—cf. customers or business partners—and thereby support the positive consequences of an organizational ethical culture outlined above.

In contrast, in the case that a strong organizational ethics program is not complemented by a strong organizational ethical culture, firm performance is likely to be lower. In some organizations, formally implemented ethics programs may merely serve a "window dressing" function for polishing the public image and may not be consistent with the informal signals for ethical behavior as effused in a weak organizational ethical culture (Kaptein 2009). As a result, employees are likely to doubt the integrity and authenticity of the organizational formal rules and guidelines and may not feel bound to these policies. Hypothesis 2 captures this interaction effect between organizational ethical culture and a corporate ethics program on firm performance.

**Hypothesis 2** The strength of an organizational ethics program moderates the relationship between organizational ethical culture and firm performance such that the positive relationship between organizational ethical culture and firm performance is stronger when the organization has a strong ethics program.

Our analysis thus suggests that whereas CEO ethical leadership may engender the "soft," informal side of the organizational ethical regulation mechanism (ethical culture), the mediated influence of ethical leadership via ethical culture on performance will only be realized to the extent that the organization has a "hard," formal ethical regulation mechanism in place (a strong ethics program). Hypothesis 3 summarizes our argumentation how and under what condition CEO ethical leadership relates to firm performance: CEO ethical leadership is expected to affect firm performance via organizational ethical culture which interacts with the organizational ethics program such that organizational ethical culture positively relates to firm performance when the organization has a strong ethics program. Note that we did not model a path between CEO ethical leadership and the organizational ethics program, because corporate ethics programs do not need to be reflected in CEO ethical leadership as it is understood in behavioral terms. The CEO might or might not be a major influence in the corporate ethics program—it is altogether possible that other influences are more important here such as industry or competition constraints or the request of the supervisory board. Importantly, however, to the extent that the CEO would call a corporate ethics program into being this is not necessarily reflected in the CEO's interaction with subordinates, and the latter is where ethical leadership is understood to take place.

**Hypothesis 3** CEO ethical leadership relates to firm performance through its relationship with organizational ethical culture and therefore is positively related to firm performance when the organization has a strong ethics program.

## Methods

### Study Design

To collect the data on CEO ethical leadership, organizational ethical culture, and corporate ethics programs, we used the informant sampling approach (Van de Ven and Ferry 1980) and asked randomly chosen members of an organization to fill in a web-based survey. As common in top management research (Simons et al. 1999), the minimum number of responding persons necessary for inclusion in the study was three members per organization. To justify the aggregation of these ratings to the organizational level, we calculated interrater agreement between the members of an organization (James coefficients; James et al. 1984) and checked the variance between the different organizations. While we also report the ICC values, $r_{wg}$ values are more important than ICCs to back up data aggregation for shared unit-level constructs, because $r_{wg}$ values assess the extent of within-team interrater consensus, whereas ICCs assess interrater reliability (cf. Klein and Kozlowski 2000). Data on firm performance was also drawn from organizational members and validated with objective performance data (where available) afterwards, by using both accounting and financial measures (i.e., earnings before interest and taxes-margin (EBIT-margin), revenue per employee, and earnings per share). To avoid that the independent and the dependent variable of our model—i.e., CEO ethical leadership and firm performance—were rated by the same participants and thus to minimize any common source effects, we split our sample after the reliability and validity analyses and created two distinct groups which were used for hypotheses testing. As a precondition, each organization had to have at least three participants. We then divided the data set by chance in two parts, which had equal size or almost equal size ($\pm 1$) in case of uneven initial number of participants. The first group provided ratings of CEO ethical leadership and ethical culture and the second group provided ratings of the corporate ethics program and firm performance. Furthermore, we addressed the risk for common source bias by testing the discriminant validity of the scales which were used for the same group of participants.

## Procedure

Organizations from a diverse range of industries in Germany were contacted—mostly via email and an attached presentation of our study objectives—and asked to participate in the survey with at least three up to ten randomly chosen organizational members working across the organization. We used our personal networks to CEOs, the network of the Bavarian Elite Academy, and internet research to identify the appropriate contact persons in an organization (e.g., CEOs, heads of human resource management, and heads of the ethics office). Initial contacts were followed up by telephone calls to further explain details about the study content and the procedure. As research on business ethics is a highly sensitive issue, we strongly emphasized anonymous data treatment, confidentiality issues, and the scientific purpose of our study. As a further incentive for participation, personalized result reports were offered for the organizations, including practical recommendations on how to stimulate ethical organizational awareness and conduct. When an organization had agreed to participate, surveys were distributed internally within the organizations. We carefully instructed our organizational contact person about the objective and design of our study and he/she then randomly selected participants within the organizations who were able to give a well-founded rating of CEO ethical leadership, ethical culture, the corporate ethics system, and firm performance.

## Sample

The sample comprised 32 German companies from various industries, including the automotive sector, consumer goods, the energy, finance, pharmaceutical, chemical, food, sports, and the high-technology industry. Because organization-level data including employee surveys is difficult to obtain, small sample sizes are common in top management research requiring employee survey data (Eisenbeiss et al. 2008; Jung et al. 2003; van Knippenberg et al. 2011). Even though common practice, such small samples are clearly not ideal, and we performed a robustness check to address some of the concerns with small sample size (see Results). A total of 145 employees participated in the study of whom two-thirds were male (64.3 %). They were between 20 and 62 years of age, with the average age being 40, and had worked on average 9.8 years with the company, ranging from 2 to 35 years. The average number of participants per organization was 4.53 employees.

CEOs' discretion in Germany varies with the type and size of firms. In a cross-national study, Crossland and Hambrick (2007) compared the managerial discretion of CEOs in 15 different nations. Their results show that informal and formal national institutions—individualism, tolerance of uncertainty, cultural looseness, dispersed firm ownership, a common-law legal origin, and employer flexibility—are related to the degree of managerial discretion CEOs of public firms have in a country. In turn, country-level managerial discretion was found to be related to the influence CEOs have on firm performance. Findings indicated that German CEOs' managerial discretion and their impact on firm performance are in the mid-range, with the US and UK at the top and Japan at the bottom of the scale.

## Survey

### *CEO Ethical Leadership*

Similar to De Hoogh and Den Hartog (2008) and Den Hartog and De Hoogh (2009), we assessed CEO ethical leadership by using different subscales for covering the respective leadership components outlined above (people orientation, integrity, fairness, responsibility, and modesty; see Appendix). We assessed people orientation using a 7-item scale and integrity using a 4-item scale based on the Ethical Leadership at Work Questionnaire (Kalshoven et al. 2011). Sample items included "The CEO of my organization cares about his/her employees" and "The CEO of my organization keeps his/her promises." The people orientation measure had an alpha coefficient of 0.92 and the integrity measure had an alpha coefficient of 0.98. Fairness was measured by using a 6-item scale based on Moorman (1991) and included questions such as "The CEO of my organization makes consistent decisions that base on reliable standards." The alpha coefficient for the fairness measure was 0.91. Responsibility was assessed using a 10-item scale based on Kalshoven et al.'s (2011) scale on environmental sustainability. As this scale does not cover leader responsibility to stakeholders, society, and future generations, we included additional items by following Maak and Pless' (2006) framework on responsible leadership. A sample question was "The CEO of my organization feels responsible for society." The alpha coefficient for the responsibility scale was 0.92. Modesty was measured using a 4-item scale of the Hexaco Personality Inventory (Lee and Ashton 2004) which showed an alpha coefficient of 0.76. A sample item was "The CEO of my organization would not want people to treat him/her as though he/she were superior to them." All the items were rated on a 6-point response scale, ranging from 1 (strongly disagree) to 6 (strongly agree). The overall ethical leadership scale had an alpha coefficient of 0.87.

In a validation study with 311 employees from the UK—who were 42 years of age on average, of whom 51.8 % were male, 51.1 % interacted daily with their supervisor, and 59.1 % had over 10 years of professional experience—our measure of ethical leadership showed an almost perfect correlation ($r = 0.94$; $p < 0.01$) with the widely used ethical leadership instrument developed by Brown et al. (2005) and a significant negative correlation ($r = -0.48$; $p < 0.01$) with abusive leadership (Tepper 2000), indicating good convergent and discriminant validity (Campbell and Fiske 1959).

### *Organizational Ethical Culture*

We operationalized organizational ethical culture by using a 46-item scale based on Kaptein (2008), measuring the organizational virtues of clarity, feasibility, supportability, transparency, discussability, congruency of management, and sanctionability (see Appendix). Sample items were "In my immediate working environment, a mutual relationship of trust prevails between the employees" and "The organization makes it sufficiently clear to me how I should deal with external persons and organization responsibly." All items were rated on a 6-point Likert scale ranging from 1 (strong disagreement) to 6 (strong agreement). The organizational ethical culture scale had an alpha coefficient of 0.91, ranging from 0.77 to 0.87 for the respective subscales.

### *Organizational Ethics Program*

We assessed the scope of the organizational ethics program using a 10-item scale based on O'Dwyer and Madden (2006) and Weaver et al. (1999) which covered the existence of ethics codes and policies, sanctioning and reward systems, monitoring systems, training, and official organizational communication. Sample questions were "Does your organization have a code of conduct?" or "How frequently do you receive ethics training?" Depending on the question format, the response scale was either "yes," "no," or "no knowledge"—e.g., for the question on the existence of an ethics code, with the first option recoded to 1 ("existing") and the latter options recoded to 0 ("non-existing") afterwards (also see Kaptein 2009), or a 5-point Likert scale ranging from 0 (never) to 4 (several times per year)—e.g., for the questions on ethics training. Because the items varied in their answering format, we divided each item score by the number of its possible answering categories so that the range of values for each item was between 0 and 1 and formed a composite measure of the ethics program by summing all the item scores (Weaver et al. 1999). Higher values on the measure reflected a stronger corporate ethics program.

### *Firm Performance*

We measured firm performance using the 4-item scale from Delaney and Huselid (1996) which assesses the perceived performance of an organization in the market in relation to its industry competitors over the last 3 years. Items were rated on a 5-point Likert scale ranging from 1 (much worse) to 5 (much better). Cronbach's alpha for this scale was 0.79.

### *Control Variable*

In line with previous social scientific organization-level research (e.g., Jung et al. 2003), we controlled for organization size and organization age because these variables can affect the development of organizational culture (e.g., Schminke et al. 2005) and firm performance (Gooding and Wagner 1985).

## Scale Validity Analysis

To test the dimensional structure of our ethical leadership measure, we conducted confirmatory factor analyses with AMOS 5.0 and compared a two-level factor model which contained the five components of ethical leadership as distinct first-level factors (i.e., people-orientation, integrity, fairness, responsibility, modesty) and ethical leadership as the superordinate second-level factor to a one-factor model. In line with our expectations, the two-level factor model showed satisfying fit indices (with $\chi^2$/df = 1.84; confirmatory fit index (CFI) = 0.90; root-mean-square error of approximation (RMSEA) = 0.08) whereas the one-factor model did not ($\chi^2$/df = 3.95; CFI = 0.66; RMSEA = 0.14) (see Bentler 1980, 1990; Kline 1998).

To test the discriminant validity of the scales, we ran further confirmatory factor analyses. Given the conceptual two-level factor structure of three of our constructs (CEO ethical leadership, organizational ethical culture, organizational ethics program) and the sample size of less than 150 informants, the methodological literature suggests that data-parceling may be the most appropriate procedure for the discriminative analyses because it helps increase the stability of the factor structures (Little et al. 2002). In comparison to item-level data, models based on parceled data have several advantages: they are more parsimonious, have fewer chances for residuals to be correlated, and reduce the various sources of sampling error (Little et al. 2002; MacCallum et al. 1999). To create the respective parcels for our factor models, we followed the recommendations of Kishton and Widaman (1994) for multidimensional item sets and built the parcels by using the first-order factors of CEO ethical leadership, organizational ethical culture, and organizational ethics program as grouping criteria (e.g., the first parcel of CEO ethical leadership reflected its people-orientation component).

In line with the data split for hypotheses testing, we compared a two-factor model that contained CEO ethical leadership and organizational ethical culture as two-level factor constructs to a one-factor model in which all the first-order parcels were conceptualized to load on one factor. As expected, we found that the two-factor model fit the data well (with $\chi^2/\text{df} = 2.11$; CFI = 0.95; RMSEA = 0.09), whereas the one-factor model did not show an acceptable fit ($\chi^2/\text{df} = 3.33$; CFI = 0.88; RMSEA = 0.13) (Bentler 1990; Kline 1998). In the two-factor model, all the factor loadings of the CEO ethical leadership parcels and the organizational ethical culture parcels were statistically significant and positive ($p < 0.01$). We ran another confirmatory factor analysis to test for the discriminative validity between the organizational ethics program and firm performance. Using the parceling method for the organizational ethics program, we tested a two-factor model including the organizational ethics program as a two-level factor and firm performance as a separate factor against a simple one-factor model in which the ethics program parcels and the firm performance items were all supposed to load on the same factor. In line with our expectations, the two-factor model showed excellent model fit ($\chi^2/\text{df} = 1.49$; CFI = 0.97; RMSEA = 0.06), whereas the one-factor model did not fit the data well (with $\chi^2/\text{df} = 6.04$; CFI = 0.65; RMSEA = 0.19). In the two-factor model, all the factor loadings of the ethics program parcels and firm performance items were significantly positive ($p < 0.05$).

## Validation of Performance Data

In order to check the validity of our performance ratings, we collected objective performance data for the organizations via the "Electronic Federal Index" of the German Justice Ministry. Covering both financial market- and accounting-based aspects of firm performance (Danielson and Press 2003; Richard et al. 2009), we settled for using EBIT-margin and revenue per employee as accounting-based measures and earnings per share as a market-oriented measure. Not all organizations which have participated in our study were quoted and listed in this index but we achieved to collect the revenue per employee-values for 18 organizations, the EBIT-margin for 16 organizations, and the earnings per share-values for 9 organizations. The data were retrieved for the last 3 years and a mean score was created for each organization and transformed into a standardized $z$-coefficient by taking into account the average performance of the industry the organization operated in. Because of the small sample size of organizations for which the objective data was available, we could not use this data as criterion in our regression analysis but calculated intercorrelations with our survey performance ratings. All the intercorrelations were positive and of medium to large size (Cohen and Cohen 1975): 0.30 for perceived firm performance with EBIT-margin, 0.39 with earnings per share, and 0.56 with revenue per employee. All the correlations between the subjective and the objective measures correspond to the usual relationship strength found between subjective and objective performance measures (cf. Wall et al. 2004). Therefore, our employee performance ratings can be regarded as a valid operationalization of firm performance.

## Aggregation Analyses

Responses by individual organizational members were aggregated to the organization-level. To determine the interrater agreement between organizational members for CEO ethical leadership perceptions, organizational ethical culture, and firm performance, we followed the formula developed by James et al. (1984). Average $r_{wg}$ for CEO ethical leadership was 0.90 (median = 0.90), $r_{wg}$ for organizational ethical culture was 0.87 (median = 0.95), and $r_{wg}$ for firm performance was 0.93 (median = 0.93). All the $r_{wg}$ values were above the critical cut-off value of 0.70 (James et al. 1984), suggesting that it was appropriate to aggregate individual responses to the organization-level. ICCs also showed acceptable values: ICC1 = 0.20/ICC2 = 0.53 for CEO ethical leadership, ICC1 = 0.20/ICC2 = 0.52 for organizational ethical culture, and ICC1 = 0.48/ICC2 = 0.81 for firm performance. Because of the mixed answering formats of the measure for corporate ethics programs, we calculated Fleiss' (1971) Kappa for this scale. The Kappa coefficient for organizational ethics programs was 0.64 and clearly exceeded the critical aggregation value of 0.40 (Fleiss 1971).

Furthermore, to assess the between-group variance across organizations, we performed one-way analyses of variance (ANOVAs) for CEO ethical leadership, organizational ethical culture, organizational ethics program, and firm performance scales. For each scale, the $F$ value was statistically significant, indicating substantial differences between the organizations.

## Results

### Correlation Analysis

Table 1 presents mean and standard deviations for all variables in the study as well as the correlation matrix of all these variables at the organizational level. As expected, CEO ethical leadership correlated positively with organizational ethical culture. The organizational ethical culture was positively intercorrelated with firm performance. The organizational ethics program was neither significantly related to CEO ethical leadership nor to organizational ethical culture nor to firm performance.

### Hypotheses Testing

To test our conceptual model (see Fig. 1), we followed Preacher et al.' (2007) procedure for analyzing conditional indirect effects. A conditional indirect effect covers mediated moderation and moderated mediation, respectively, and is defined as "the magnitude of an indirect effect at a particular value of a moderator (or at particular values of more than one moderator)" (Preacher et al. 2007, p. 186). In contrast to other methods for analyzing mediated moderation or moderated mediation (e.g., Muller et al. 2005), the procedure developed by Preacher et al. (2007) offers the possibility to accurately test theoretical expectations about what particular path of a mediation model is moderated. The method has already been successfully applied in leadership research (Eisenbeiss et al. 2008).

Preacher et al.'s (2007) procedure builds on the logic of regression analyses and includes four distinct steps: In the first step, the mediator variable is regressed on the independent variable, which should be a significant predictor of the mediator variable. In the second step, a multiple regression is conducted that predicts the dependent variable from the mediator, the moderator, the independent variable, and the interaction between the moderator and the mediator. The interaction effect should be statistically significant as well. Following the recommendations of Aiken and West (1996), any variable used as a component of the interaction term has to be mean-centered beforehand. The third and the fourth step test the conditional indirect effect of the independent variable on the dependent variable by probing specific indirect effects of the independent variable on the dependent variable at particular values of the moderator variable. Whereas the test conducted in the third step assumes normality of sampling distribution, the test conducted in the fourth step is nonparametric and relies on a bootstrapping procedure.

The first step showed that CEO ethical leadership was positively related to organizational ethical culture and thus confirmed Hypothesis 1. The second step revealed a significant interaction effect between organizational ethical culture and organizational ethics program on firm performance, supporting Hypothesis 2. Figure 2 illustrates the interaction effect between organizational ethical culture and firm performance which was plotted by following the recommendations from Aiken and West (1996). The third step—and in accordance the fourth step—showed a significant conditional indirect (i.e., mediated by ethical culture) effect of CEO ethical leadership on firm performance when there was a strong ethics program. The indirect effect of CEO ethical leadership on firm performance was not found under weak organizational ethics programs (see Table 2 for the statistics). Hypothesis 3 could therefore be confirmed as well.[1]

### Additional Checks for Robustness and Validity

Given our small sample size, we checked the robustness of our results by calculating *Cook's distances*, which indicate the most influential data points in a sample. Though we did not have cases above the critical cut-off value of 1, we still deleted the five most influential cases of our sample (>0.10) and re-ran the analyses. All the findings reported above were still significant. This analysis thus suggests that the small sample size did not compromise the robustness of our findings by allowing a few extreme cases to have disproportionate influence. Furthermore, we checked if our results hold with further control variables included, i.e., CEO tenure and employee organizational tenure, for which we did not have the data of the complete sample ($N = 30$ for CEO tenure and $N = 29$ for employee organizational tenure). All results were still significant, providing further indication of the robustness of our analysis.

In light of the high intercorrelation between CEO ethical leadership and organizational ethical culture, we also checked if multicollinearity plays a role in our analysis and calculated the variance inflation factors (VIF) for our predictor variables. All VIF values were below 2.5 and thus below the cut-off value of 4 (cf. Myers 1990). Multicollinearity thus does not seem to be an issue in our study.

We also examined closely if the CEOs of our sample held their executive position long enough to be able to impact our performance ratings, which were assessed in a retrospective way. For this purpose, we looked at the average CEO tenure. CEOs had been in their position on

[1] An alternative way of reasoning could be that organizational ethical culture affects the selection of an ethical CEO and/or whether the existing CEO engages in ethical leadership (cf. Schein 2004). We therefore also calculated the reverse contingent indirect effect model (with organizational ethical culture as the independent variable, CEO ethical leadership as the mediating variable, the corporate ethics program as the moderating variable, and firm performance as the dependent variable). This model was not significant, corroborating our analysis which advances CEO ethical leadership as the influence on culture.

**Table 1** Mean, standard deviations, and intercorrelations of variables

| Variable | *M* | SD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| 1. Organizational size | 13,542.10 | 2,407.49 | – | | | | |
| 2. Organizational age | 61.97 | 49.72 | 0.22 | – | | | |
| 3. CEO ethical leadership | 4.77 | 0.59 | 0.06 | 0.10 | – | | |
| 4. Organizational ethical culture | 4.63 | 0.45 | −0.07 | −0.07 | 0.65** | – | |
| 5. Organizational ethical program | 4.29 | 2.14 | 0.08 | 0.26 | 0.13 | 0.26 | |
| 6. Firm performance | 3.63 | 0.72 | 0.05 | 0.21 | 0.52** | 0.47** | 0.15 |

* $p < 0.05$; ** $p < 0.01$

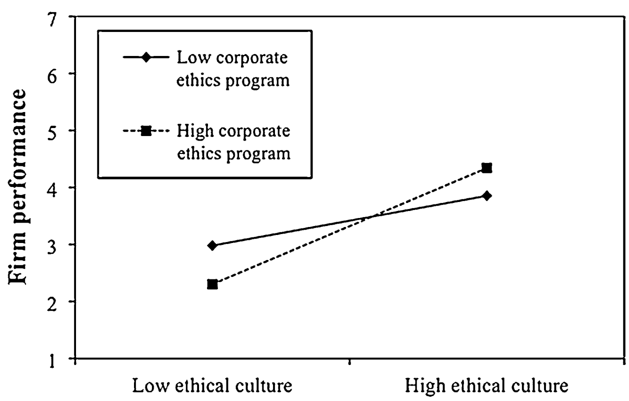


**Fig. 2** Interaction effect between organizational ethical culture and organizational ethics program on firm performance

**Table 2** Test of overall model

| Variable | *b* | SE *b* | *t* | $R^2$ |
|---|---|---|---|---|
| Mediator variable model (step 1): organizational ethical culture | | | | 0.45 |
| Organizational size | 0.00 | 0.00 | −0.56 | |
| Organizational age | 0.00 | 0.00 | −0.85 | |
| CEO ethical leadership | 0.51 | 0.11 | 4.74** | |
| Dependent variable model (step 2): firm performance | | | | 0.44 |
| Organizational size | 0.00 | 0.00 | −0.22 | |
| Organizational age | 0.00 | 0.00 | 1.40 | |
| CEO ethical leadership | 0.35 | 0.25 | 1.40 | |
| Organizational ethical culture | 0.73 | 0.36 | 2.01 | |
| Organizational ethics program | −0.04 | 0.06 | −0.81 | |
| Organizational ethical culture × organizational ethics program | 0.29 | 0.00 | 2.10* | |
| **Level of organizational ethics program** | **Indirect effect** | **SE** | ***Z*** | |
| Conditional indirect effects assuming normality distribution (step 3) | | | | |
| −1 SD | 0.05 | 0.20 | 0.27 | |
| Mean | 0.37 | 0.21 | 1.82[a] | |
| +1 SD | 0.69 | 0.31 | 2.17* | |

* $p < 0.05$; ** $p < 0.01$; [a] $p < 0.10$

average for 9.86 years (with the *median* of 6 years), indicating that they were in charge of the organization several years before the 3-year period of the organizational performance ratings. In other words, the CEOs of our sample seem to have had the chance to substantially influence firm performance as measured in this study.

## Discussion

In light of recent indications that many leaders prioritize financial profit over business ethics, the present paper challenged the still widespread (explicit or implicit) business belief that business ethics and firm economic performance are mutually exclusive ends: we analyzed whether there are conditions under which CEO ethical leadership and firm performance can harmonize. Addressing the "grand question" of the relationship between CEO ethical leadership and firm performance (Brown and Treviño 2003, p. 169) and complementing prior research at the individual and team level (Brown et al. 2005; Kalshoven et al. 2011; Piccolo et al. 2010; Walumbwa et al. 2011), we advance the ethical leadership literature by turning to the organization level, providing a theoretical and empirical analysis how and when CEO ethical leadership is positively related to firm performance.

Our findings confirmed Hypothesis 1, showing that CEO ethical leadership is positively related to organizational ethical culture. As expected, we found that organizational ethical culture interacts with the corporate ethics program such that organizational ethical culture is positively related to firm performance under the condition of a strong corporate ethics program (Hypothesis 2). Supporting our entire conceptual model (Hypothesis 3), the results yielded the expected conditional indirect effect of CEO ethical leadership on firm performance, mediated by organizational ethical culture and moderated by the corporate ethics program.

### Theoretical Implications

The current literature on ethical leadership is limited to work that examined the consequences of ethical leadership on individual level and team level outcomes (e.g., Brown et al. 2005; Piccolo et al. 2010; Walumbwa et al. 2011). Addressing the ethical leadership–performance link at the organization level, our study shows that relationships may play out differently when moving to a higher level of analysis: in contrast to the established positive main effects of ethical leadership on individual and small group performance, our results revealed that CEO ethical leadership effectiveness—in terms of firm performance—is contingent on a strong corporate ethics program. The fact that the present study established a relationship between ethical leadership and outcomes at the organizational level and the fact that it did so identifying mediating and moderating variables unique to the organizational level of analysis extends an invitation to researchers in both ethical leadership and strategic management to further engage with the study of CEO, or top management, ethical leadership and examine the relationships with a variety of outcomes at the organizational level of analysis that tap into an ethical dimension—e.g., social and environmental investments or the public "good reputation" of an organization.

To reveal level-specific influence mechanisms between ethical leadership and organizational outcomes, we believe such research would greatly benefit from taking more interdisciplinary approaches. Combining insights from different disciplines—i.e., strategic management research on CEO leadership (Hambrick and Mason 1984), behavioral research on ethical leadership (Brown et al. 2005; Kalshoven et al. 2011; Riggio et al. 2010), and research on organizational ethical infrastructure (e.g., Falkenberg and Herremans 1995; Kaptein 2008, 2009; O'Dwyer and Madden 2006; Tenbrunsel et al. 2003; Treviño et al. 1998), we could develop an integrative conceptual model that specifies unique organization-level mediating and moderating processes in the ethical leadership–performance relationship.

The present study also adds to upper echelons research which has focused on examining the impact of CEO demographics on firm performance, assuming that these measures can capture the underlying psychological constructs in a valid and reliable way (cf. Carpenter et al. 2004). However, the theoretical and practical meaning of demographic data got severely criticized and more and more authors posited a need to turn away from such simplistic approaches and to study directly CEO cognitions and behaviors, such as CEO leadership (Carpenter et al. 2004; Hambrick 2007). Taking up this challenge, we theoretically and empirically analyzed the relationship between CEO ethical leadership and firm performance, identifying a mediating process (organizational ethical culture) as well as a contextual boundary condition (organizational ethics program). In doing so, we advance current knowledge about how and why ethical upper echelons matter.

Our study also contributes to research on organizational ethical infrastructure as it unpacks the interaction effect between the formal and informal organizational systems on firm performance. In doing so, it goes beyond prior work which has simply tested the link between organizational culture and corporate ethics programs (Kaptein 2009) but has not integrated how the two constructs jointly relate to organizational outcomes. The present findings indicate that organizational ethical culture only seems to be beneficial for firm performance when it is supported by strong formal and documented control elements embodied in a corporate ethics program.

Whereas we are careful not to generalize across levels (cf. Klein and Kozlowski 2000), the current findings extend an invitation to research at the individual and team level to also consider contingencies of the relationship between ethical leadership and performance. Even when there is a direct relationship between ethical leadership and performance at the individual- and team-level, this relationship can be stronger under some circumstances than under others, and in terms of developing solid theory as well as effective practice, such information is important to obtain. To generate a deeper understanding of ethical leadership at the individual and the team level, then, it would seem highly worthwhile to move away from investigating main effects of ethical leadership only and to theoretically and empirically analyze contingencies at these lower levels of analysis.

## Limitations and Future Research

Aside from these contributions, our study inevitably also has some limitations. First, it is limited by its cross-sectional design, not allowing drawing conclusions about causal relationships. The experimental data required for causal conclusions seems extremely difficult to realize at the level of CEO leadership, but with regard to the influence chain implied in our conceptual analysis, it would have been preferable to collect longitudinal data. Unfortunately, due to time and cost restrictions, the participating organizations did not agree to provide us with this form of data. We thus encourage future research to further examine the interrelation of CEO ethical leadership and firm performance by using a longitudinal design. Second, our study could be criticized for the small sample size of 32 organizations. However, it is in line with previous top-tier group and organizational research using small samples around 30 entities to test (mediated/moderated) regression hypotheses (cf. Eisenbeiss et al. 2008; Jung et al. 2003; van Knippenberg et al. 2011). Collecting data at the team and organizational level is extremely difficult and time-intensive and it is common in group/organizational level research to use sample sizes substantially smaller than in individual level research. Our robustness check indicated the stability of our results despite the limited sample size. Furthermore, finding relationships, especially moderating effects, in a relatively small sample indicates large effect sizes (Cohen 1992). Having said that, a replication of our study with a larger sample size and possibly in a different culture would still be of great value, of course. Furthermore, the organizations of our study operate in different industries. The heterogeneity of the sample indicates that the influence of CEO ethical leadership may occur across different industries but it would be also interesting to look more closely into specific industries and examine the interrelation between CEO ethical leadership and firm performance within. It seems likely that industry characteristics (e.g., the organizational mandate, stakeholder interests) influence the development of organizational ethical culture and ethical leadership (cf. Eisenbeiss and Giessner 2012) and possibly affect the interrelation between CEO ethical leadership, organizational culture, and firm performance. Third, we were not able to assess objective measures of firm performance for all the participating organizations, even when we obtained enough observations to cross-validate our subjective measure. Accordingly, future research would benefit from a design which involves objective measures of performance for more than validation purposes alone. Fourth, we were not allowed to select the individual participants of an organization ourselves but had to rely on the ability of the organizational contact person to choose wisely participants, who were able to provide well-founded ratings of our study variables. The results of our aggregation analysis indicated that the participants selected must have had valid insights into the CEO leadership style, culture, etc. as there was substantial inter-organizational agreement in contrast to significant variance between organizations.

### Managerial Implications

Our findings clearly showed that business ethics and firm performance are not mutually exclusive. CEO ethical leadership is not only an essential virtue in itself but also bears the potential of positively affecting firm performance. Ethical awareness and ethical leadership behaviors can be enhanced in focused training programs (Howell and Avolio 1992; Skarlicki and Latham 1997) and the current findings suggest that organizations may benefit also in their performance when top managers make use of those training programs to develop their ethical leadership and their ethical sensitivity.

Our study revealed that the positive relationship between CEO ethical leadership and firm performance is contingent on the existence of a strong corporate ethics program. Top executives should thus pay particular attention to the formal and tangible facets of the organizational ethical infrastructure and establish a code of conduct, professional trainings on ethical leadership, and incentive procedures that promote ethical conduct and sanction deviance (see Tenbrunsel et al. 2003). When these formal ethical control systems are firmly anchored, consistently implemented throughout the organization, and made sufficiently salient to employees and other stakeholders, they optimally support the informal cultural signals regarding desired ethical conduct which are created by CEO ethical leadership and organizational ethical culture.

## Conclusion

Challenging the traditional "either-or" belief that business ethics and financial performance are mutually exclusive ends, we show that CEO ethical leadership and firm performance can go well together. Theoretically and empirically analyzing the ethical leadership–performance link at the organization level of analysis, we found that CEO ethical leadership needs support by a strong corporate ethics program in order to be beneficial for firm performance. We also revealed the mechanism by which CEO ethical leadership relates to firm performance: i.e., the organizational ethical culture. With this study, we hope to encourage business leaders and organizations to truly commit to business ethics in their decision-making and to stimulate future leadership research to take more cross-disciplinary and contingency approaches.

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## Appendix

### Items for Measuring Ethical Leadership

The CEO of my organization …

**People orientation**

is interested in how his/her employees feel and how they are doing.

takes time for personal contact with his/her employees.

pays attention to employees' personal needs.

takes time to talk about work-related emotions.

is genuinely concerned about employees' personal development.

sympathizes with employees when they have problems.

cares about his/her employees.

**Integrity**

keeps his/her promises.

can be trusted to do the things he/she says.
can be relied on to honor his/her commitments.
always keeps his/her words.

**Fairness**

makes his/her decision basing on accurate information collected beforehand.
makes consistent decisions that base on reliable standards.
considers in his/her actions the rights of his/her employees.
considers in his/her actions multiple viewpoints.
rewards performance in a fair manner.
rewards according to the responsibility the respective employee has.

**Responsibility**

feels responsible for society.
values long-term relationships with business partners.
is interested in a long-term orientation of success.
feels committed to the welfare of future generations.
organizes business processes in an environmentally friendly manner.
ensures that the organization is a "good citizen."
creates awareness of the responsibility of organizations for society and environment.
offers followers the possibility for social engagement.
enforces the long-term organizational success against short-term wins.
realizes the responsibility of the organization for society.

**Modesty**

thinks that he/she is an ordinary person who is no better than others.
would not want people to treat him/her as though he/she were superior to them.
thinks that he/she is entitled to more respect than the average person is.
wants people to know that he/she is an important person of high status.

**Items for Measuring Organizational Ethical Culture**

1. The organization makes it sufficiently clear to each employee how he/she should conduct him-/herself appropriately toward others within the organization.
2. The organization makes it sufficiently clear to each employee how he/she should obtain proper authorizations.
3. The organization makes it sufficiently clear to each employee how he/she should use company equipment responsibly.
4. The organization makes it sufficiently clear to each employee how he/she should use his/her working hours responsibly.
5. The organization makes it sufficiently clear to each employee how he/she should handle money and other financial assets responsibly.
6. The organization makes it sufficiently clear to each employee how he/she should deal with conflicts of interests and sideline activities responsibly.
7. The organization makes it sufficiently clear to each employee how he/she should deal with confidential information responsibly.
8. The organization makes it sufficiently clear to each employee how he/she should deal with external persons and organizations responsibly.
9. The organization makes it sufficiently clear to each employee how he/she should deal with environmental issues in a responsible way.
10. In my organization, it is sufficiently clear to everybody how he/she is expected to conduct him-/herself in a responsible way.
11. In my organization, employees are never asked to do things that conflict with their conscience.
12. In order to be successful in my organization, nobody has to sacrifice his/her personal norms and values.
13. In my organization, employees have sufficient time at their disposal to carry out their tasks responsibly.
14. In my organization, employees have sufficient information at their disposal to carry out their tasks responsibly.
15. In my organization, employees have adequate resources at their disposal to carry out their tasks responsibly.
16. In my organization, employees are never put under pressure to break the rules.
17. In my organization, everyone is totally committed to the (stipulated) norms and values of the organization.
18. In my organization, an atmosphere of mutual trust prevails.
19. In my organization, everyone has the best interests of the organization at heart.
20. In my organization, a mutual relationship of trust prevails between employees and management.
21. In my organization, everyone takes the existing norms and standards seriously.
22. In my organization, everyone treats one another with respect.
23. The conduct of the top management reflects a shared set of norms and values.
24. The top management sets a good example in terms of ethical behavior.
25. The top management communicates the importance of ethics and integrity clearly and convincingly.
26. The top management would never authorize unethical or illegal conduct to meet business goals.
27. If a colleague does something which is not permitted, a manager will find out about it.
28. If a colleague does something which is not permitted, another employee will find out about it.

29. If a manager does something which is not permitted, someone in the organization will find out about it.
30. If someone criticizes other people's behavior, he/she will receive feedback on any action taken as a result of his/her criticism.
31. In my organization, there is adequate awareness of potential violations and incidents in the organization.
32. Management is aware of the type of incidents and unethical conduct that occur in my organization.
33. In my organization, there is adequate scope to discuss unethical conduct.
34. In my organization, there is adequate scope to report unethical conduct.
35. In my organization, there is ample opportunity for discussing moral dilemmas.
36. If someone is called to account for his/her conduct, it is done in a respectful manner.
37. In my organization, there is adequate scope to correct unethical conduct.
38. In my organization, people are accountable for their actions.
39. In my organization, ethical conduct is valued highly.
40. In my organization, only people with integrity are considered for promotion.
41. If necessary, managers are disciplined in my organization if they behave unethically.
42. The people that are successful in my organization stick to the norms and standards of the organization.
43. In my organization, ethical conduct is rewarded.
44. In my organization, employees will be disciplined if they behave unethically.
45. If unethical conduct is reported to management, those involved would be disciplined fairly regardless of their position.
46. In my organization, employees who conduct themselves with integrity stand a greater chance to receive a positive performance appraisal than employees who conduct themselves without integrity.

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