

# Top Management Ethical Leadership and Firm Performance: Mediating Role of Ethical and Procedural Justice Climate

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**Abstract** Despite the prevailing discourses on the importance of top management ethical leadership, related theoretical and empirical developments are lacking. Drawing on institutional theory, we propose that top management ethical leadership contributes to organizational outcomes by promoting firm-level ethical and procedural justice climates. This theoretical framework was empirically tested using multi-source data obtained from 4,468 employees of 147 Korean companies from various industries. The firm-level analysis shows that top management ethical leadership significantly predicts ethical climate, which then results in procedural justice climate that fully mediates the effects of top management ethical leadership on two organizational outcomes, namely, firm-level organizational citizenship behavior and firm financial performance. The present study provides a plausible theoretical account and empirical validation of a mechanism through which top management ethical leadership enhances organizational performance.

**Keywords** Top management · Ethical leadership · Ethical climate · Procedural justice climate · Organizational citizenship behavior · Financial performance

## Introduction

Moral scandals from the top managers of global companies have made ethical leadership one of the most essential attributes of business leaders (Brown et al. 2005). Nevertheless, the empirical relationship, either positive or negative, between top management ethical leadership and organizational performance has not been examined in a systematic manner beyond widespread anecdotal statements (Treviño et al. 2003). Moreover, the extant literature fails to offer compelling theoretical account and empirical evidence regarding the mechanisms through which top management ethical leadership affects organizational performance. In the present study, we develop and empirically validate a theoretical framework where top management ethical leadership predicts firm performance by shaping the firm-level climate pertinent to ethical management.

Scholars have increasingly attended to the performance implications of ethical leadership (e.g., Lin et al. 2009; Neubert et al. 2009; Pastoriza et al. 2007). Although these studies confirm the significance of ethical managerial behavior for employee outcomes, such as satisfaction, commitment, and citizenship behaviors, they focus on managers or first-line supervisors, rather than top management. Previous research on ethical leadership rarely examines the relationship and linking mechanisms between top management ethical leadership and organizational performance. This gap is a critical omission in light of findings that top management shapes the ethical climate

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and culture of a firm (Treviño et al. 1998; Victor and Cullen 1988) as well as the strategy of a company (Freeman et al. 1988).

Ethical leadership of top managers affects employee behaviors by exerting a cascading effect on middle-level managers and employees (Mayer et al. 2009), and thus, the ethical dimension of top management leadership should be considered as a critical factor that affects organizational effectiveness (Treviño et al. 2003). Therefore, understanding the role of ethical leadership in organizations is incomplete without knowing whether and how top management ethical leadership relates to organizational outcomes. To this end, the current study investigates the association between top management ethical leadership and the organizational performance. More specifically, we focus on two organizational outcomes, namely, the collective organizational citizenship behavior (OCB) of employees and the firm financial performance, which represent the behavioral and financial outcomes of an organization, respectively.

In addition, we advance a theoretical framework to elucidate the mechanism through which the ethical leadership of top managers generates favorable organizational outcomes. To this end, we draw on institutional theory (Scott 1995), which posits that institutional enablers (e.g., leadership, organizational structure, and resources) influence the collective perceptions of organizational members in shaping outcomes at the institution level (Choi and Chang 2009). Specifically, we identify *ethical climate* and *procedural justice climate* as the firm-level mediators of the ethical leader-firm performance relationship because these two types of organizational climate reflect employees' *shared perceptions* of ethicality and fairness in the organization, respectively (Rupp et al. 2006; Turker 2009). Previous individual-level studies indicate that leader ethical behavior or morality is apt to form corresponding employee attitudes and beliefs as well as norms related to ethical standards (Dickson et al. 2001; Walumbwa and Schaubroeck 2009). Top managers can create and maintain ethical norms and climate within the firm (Schminke et al. 2005), and thus, the ethical leadership of top managers may be positively related to the ethical and procedural justice climates of the organization, which are directly responsible for firm-level OCB and financial performance.

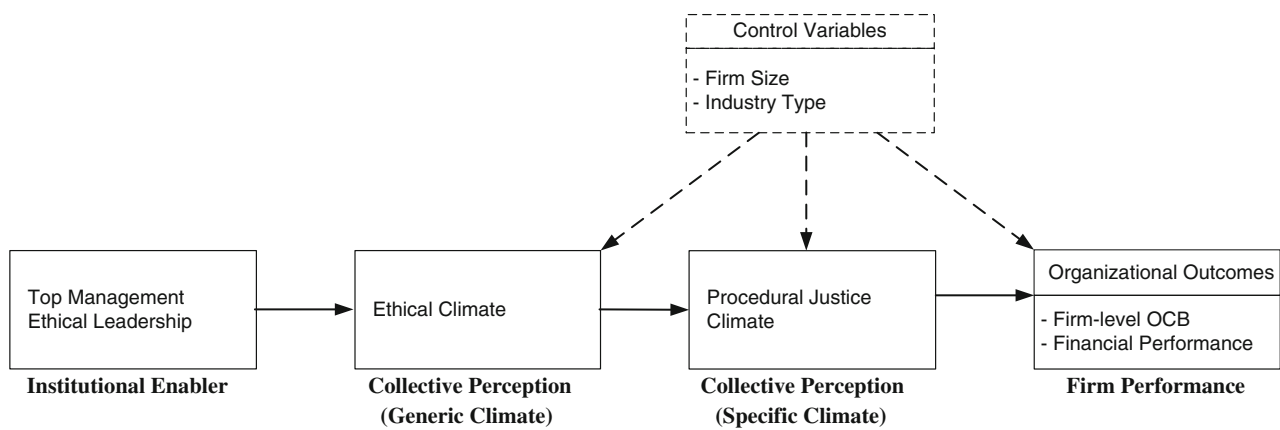
A firm-level investigation that reveals the contribution of ethical leadership toward the bottom line is pivotal for corporate ethics research. Such investigation offers meaningful implications for business leaders and executives. Pursuing ethicality and profitability at the same time is a dilemma for many business leaders because of heavy emphasis put by firms on financial goals (Fulmer 2004). Thus, whether the ethical leadership of top management is indeed associated with the organizational bottom line and

through what processes top management ethical leadership can elevate the bottom line are important research agendas. To answer this research call, we adopt institutional theory (Scott 1995) as an overarching theoretical framework for our research model. In addition, we draw on social learning theory (Bandura 1977), social exchange theory (Blau 1964), group-value, and relational models of procedural justice (Tyler and Blader 2003), and fairness heuristics theory (Lind 2001) as the rationale for specific linkages proposed in the model. Our theoretical propositions were empirically tested using data obtained from 4,468 employees of 147 Korean business organizations, as well as the financial performance data of these companies.

## Theoretical Background and Hypotheses

Ethical leadership is “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” (Brown et al. 2005, p. 120). Drawing on prior research (Menz 2012; Treviño et al. 2003; Wiersema and Bantel 1992), we define top management as senior executives and managing directors responsible for one or more functional areas in their organization (e.g., chief financial officer, chief compliance officer). At present, knowledge on the relationship between top management ethical leadership and firm performance is limited. To address this research gap, we draw on institutional theory (Scott 1995). According to this theory, institutional enablers, such as leadership, structure, and resources, shape the cognition and behavior of organizational members by assigning meaning to a situation, which provides members with norms that legitimize a specific behavior and regulate their actions through sanctions (Scott 1995). Scholars have concurred that the top management is a primary institutional enabler because top managers can effectively manipulate the institutional environment (Choi and Chang 2009; Purvis et al. 2001). For example, Chatterjee et al. (2002) identify top management championship as the key institutional enabler of innovation assimilation. Therefore, we propose that top management ethical leadership may serve as an institutional enabler of ethical processes because top managers formulate ethical norms and a code of ethics, and shape the ethical and justice climates in the organization.

As summarized in Fig. 1, we identify ethical and procedural justice climate as firm-level intervening mechanisms between top management ethical leadership and organizational outcomes. Ethical climate refers to the shared perceptions of employees on the ethical policies, practices, and procedures of the organization (Martin and



**Fig. 1** Theoretical framework of top management ethical leadership and organizational outcomes

Cullen 2006), whereas procedural justice climate refers to the shared perceptions of employees on the fairness of decision-making processes within the organization (Naumann and Bennett 2000). Through attraction-selection-attrition processes (Schneider 1987), social interactions, communication, and socialization, organizational members develop similar perceptions and interpretations of events and phenomena in the organization, which in turn form an organizational climate (Ostroff et al. 2003). We contend that the ethical and procedural justice climates reflect important employee perceptions related to corporate ethics (Rupp et al. 2006; Turker 2009).

Our research model focuses on two firm-level outcome variables, namely, OCB and financial performance. OCB is the “individual behavior that is discretionary, not directly or explicitly recognized by the formal reward systems, and that in the aggregate promotes the effective functioning of the organization” (Organ 1988, p. 4). Employees in the same organization tend to engage in a similar level of helping behavior (Mayer et al. 2009) because individuals who work in the same environment are exposed to similar social cues and information that help them interpret events and develop expectations about appropriate behavior (Salancik and Pfeffer 1978). Furthermore, employees of an organization are influenced by the same organizational culture, climate, and leadership, which render OCB within the same organization homogeneous and distinguishable from other organizations (Morris and Sherman 1981; Somech and Drach-Zahavy 2004). Empirical findings have demonstrated the validity of OCB as a collective phenomenon (e.g., Gong et al. 2010; Mayer et al. 2009; Shin and Choi 2010).

Although a high level of OCB performed by an individual can impede his or her task performance due to limited resources (Bergeron 2007), collective OCB displayed at the firm level contributes to efficient resource allocation and effective coordination and functioning of the

entire organization, which enhances overall organizational effectiveness (Chun et al. 2013). Whitman et al.’s (2010) meta-analysis shows that unit-level OCB has a moderately strong relationship with unit-level performance. In addition to firm-level OCB as an organizational outcome, we include firm financial performance to assess the contributions of top management ethical leadership and intervening climate variables to the organization bottom line. We explain below each of the hypotheses in detail.

### Relationship Between Top Management Ethical Leadership and Organizational Outcomes

Research on ethical leadership generally supports the idea that top management ethical leadership is related to favorable outcomes. Mayer et al. (2009) show a cascading process in which top management ethical leadership enhances the ethical behavior of first-line managers, which in turn positively relates to group-level OCB, and negatively links to group-level deviance. De Hoogh and Den Hartog (2008) report a positive relationship among the ethical leadership of the chief executive officer (CEO), effectiveness of the top management team, and optimism among the top executives. In line with these findings, we anticipate a positive relationship between the ethical leadership of top management and firm-level OCB.

Social-learning theory (Bandura 1977) suggests that employees tend to emulate the behavior of role models in the work environment. Generally, top managers serve as strong role models for employees because of their visibility and power. Therefore, when top executives exhibit a high degree of ethical leadership, employees are likely to imitate their behavior and to engage in more helping and prosocial behavior (Mayer et al. 2009). Moreover, social exchange theory (Blau 1964) maintains that individuals form relationships based on interpersonal transactions and the norm

of reciprocity. When top managers demonstrate ethical leadership, employees are urged to engage in prosocial behavior in return for the fair and caring treatment they receive from the top management and the organization (Brown and Treviño 2006). Grounded on these theories, we predict that top management ethical leadership will be positively associated with firm-level OCB.

Despite the lack of empirical evidence, we propose that top management ethical leadership would positively affect the financial performance of the firm for several reasons. The leadership literature suggests that effective leadership practices enhance the overall performance of the organization by boosting the commitment, engagement, and motivation of employees (Becker and Gerhart 1996; Becker and Huselid 1998; Combs et al. 2006). Top management leadership practices that facilitate a positive emotional climate are positively associated with the financial performance of organizations (Ozcelik et al. 2008). Consistent with these findings, Chun et al. (2013) demonstrate that the ethical practices of an organization contribute to its bottom line by promoting collective organizational commitment and OCB among employees. Hence, we presume a positive association between the ethical leadership of top management and the financial performance of the firm.

**Hypothesis 1** Top management ethical leadership is positively related to firm-level OCB and financial performance.

#### Ethical and Procedural Justice Climate as Intermediate Processes

Positive relationships between top management ethical leadership and organizational outcomes are likely to be realized through various intermediate processes involving the internal and external dynamics of the firm. The dominant theoretical perspective employed to explain potential performance benefits of corporate ethics is the instrumental stakeholder theory, which focuses on external stakeholders, such as customers and suppliers (Jones 1995). Internal organizational processes involving employee perceptions and behaviors are as important as (if not more important than) external relations in explaining organizational outcomes because the quality and quantity of the products and services of an organization rely on its employees (Chun et al. 2013; Combs et al. 2006). We attend to internal organizational processes that account for performance benefits accrued from the ethical top management by adopting institutional theory. As a powerful institutional enabler, top managers play a significant role in molding

organizational culture, climate, and employee attitudes (Grojean et al. 2004; Mulki et al. 2009).

We isolate firm-level ethical and procedural justice climate as intermediary mechanisms that translate the effect of top management ethical leadership on organizational outcomes. Ethical climate represents the overall perceptions of employees of the ethicality of the policies, procedures, and practices of the organization, whereas procedural justice climate is a narrower form of organizational climate related to the fairness of work-related decisions and resource allocation processes in the organization. Of the two types of climates, ethical climate is a more generic form of organizational climate that is directly affected by top management ethical leadership. Top management ethical leadership is a key factor in forming an ethical organizational climate and promoting ethical work behavior (Carlson and Perrewé 1995; Posner and Schmidt 1992). When employees regard top managers as the representative agents of the organization (cf. organizational embodiment, Eisenberger et al. 2010), they interpret ethical values and behaviors of top managers as the cues of the ethical orientation of the organization, and this interpretation affects the formation of an ethical climate within the firm (Dickson et al. 2001). Thus, we propose the following hypothesis:

**Hypothesis 2** Top management ethical leadership is positively related to ethical climate.

The firm-level ethical climate shaped by top management ethical leadership further provides a context where specific task-related judgments and actions based on the rule of fairness are promoted. That is, when employees perceive a high level of ethical climate, they tend to emphasize the fairness and transparency in making various resource-allocation decisions (Naumann and Bennett 2000). As a result, a more specific form of organizational climate related to procedural justice is likely to emerge in organizations with an ethical climate. Although sparse and mostly at the individual level, prior research has generally indicated a positive association between ethical and procedural justice climate (Luria and Yagil 2008; Treviño and Weaver 2001). Perhaps, the morality and ethical principles endorsed and followed by the organization, and its members could affect the shared perceptions of employees of procedural justice (Cropanzano et al. 2003). Employees tend to perceive decision-making processes as fair when they feel that the activities and functions within their organization are performed based on moral and ethical principles. Thus, we propose the following firm-level relationship:

**Hypothesis 3** Ethical climate is positively related to procedural justice climate.

## Relationship Between Procedural Justice Climate and Organizational Outcomes

Procedural justice climate is a specific form of organizational climate that reflects the perceptions of employees of fairness in their daily tasks and activities, and thus, this type of climate is likely to affect firm-level OCB and financial performance directly. Previous studies demonstrate the positive relationship between procedural justice climate and unit-level OCB at the group level (e.g., Ehrhart 2004; Walumbwa et al. 2010). We expect a similar relationship at the firm level for several reasons. First, the group-value and relational models of procedural justice posit that fair organizational procedures signal employees that they are valued by their leaders and the organization. Thus, the employees engage in OCB to maintain and to enhance positive psychological benefits that stem from identifying with their leader and the organization (Tyler and Blader 2003). Second, the fairness heuristics theory states that individuals rely on fairness judgments when they decide on whether to help others or to behave for their self-interest (Lind 2001). As a result, employees are more likely to engage in a prosocial behavior when they perceive a high degree of fairness in their organization. Finally, the collective social exchange theory (Gong et al. 2010) suggests that when employees perceive fair treatment, shared perceptions within the firm raise the normative level of collective OCB, which results in a high level of OCB of the firm.

Firm-level procedural justice climate can similarly enhance the financial performance of firms. Empirical studies indicate that unit-level procedural justice climate is positively related to various aspects of unit performance, including service performance, member retention, and customer satisfaction (Luria and Yagil 2008; Simons and Roberson 2003). Procedurally fair workplaces improve work-related attitudes, motivation, and actual task performance of employees (Cohen-Charash and Spector 2001; Zapata-Phelan et al. 2009). Furthermore, the group-value and relational models of procedural justice claim that employees who perceive a high level of procedural justice tend to value their membership and to increase their identification with the organization, and thus, exert more effort in accomplishing organizational goals (Tyler and Blader 2003). Firm procedural justice climate should enhance the collective satisfaction of employees and their attachment to the organization (Simons and Roberson 2003). Such positive work attitudes of employees are likely to increase their voluntary collaboration and performance to complete successfully various organizational functions, which improves the bottom line of the organization.

**Hypothesis 4** Procedural justice climate is positively related to firm-level OCB and financial performance.

## Mediating Effects of Ethical and Procedural Justice Climate

By integrating the aforementioned hypotheses of the direct effects among constructs, we propose that firm-level ethical and procedural justice climates mediate the relationships between top management ethical leadership and the two organizational outcomes (i.e., firm-level OCB and financial performance). The overall structure of this mediated relationship is based on institutional theory (Scott 1995) in that institutional enablers, such as top management ethical leadership, affect employee collective cognitions (i.e., ethical and procedural justice climates), which in turn promote organizational outcomes.

A similar process is endorsed by the leadership-climate-outcome framework, which postulates that leadership behavior forms a pervasive social context that shapes employee behavior and performance (Ozcelik et al. 2008). Walumbwa et al. (2010) report positive relationships among servant leadership, procedural justice climate, employee attitudes, and OCB. Mulki et al. (2009) demonstrate that instrumental leadership has a positive effect on ethical climate, which in turn leads to enhanced employee performance. These findings are also aligned with the context–attitude–behavior framework (Martin and Cullen 2006), which proposes that organizational contexts surrounding employees influence their attitudes and behavior.

Furthermore, Neal et al. (2000) maintain that the perceptions of general organizational climate affect the salience of a specific type of climate. Their findings support this argument and show that generic organizational climate affects employee behavior and performance by shaping a more specific form of organizational climate (i.e., safety climate). While this study was conducted at the individual level, the results suggest that general organizational climate may be linked to employee performance by eliciting a specific form of climate that can directly affect performance. Based on Neal et al. (2000), we posit that, rather than exerting a direct effect on firm-level OCB and performance, top management ethical leadership is linked to organizational outcomes by forming firm-level ethical and procedural justice climate.

**Hypothesis 5** Firm-level ethical climate and procedural justice climate mediate the relationships between top management ethical leadership and organizational outcomes (firm-level OCB and financial performance of the firm).



## Method

### Research Setting and Data Collection

To test the present hypotheses, we used corporate survey data collected by the Korea Research Institute of Vocational Education and Training (KRIVET) and the financial performance information of each organization, as archived by the Korea Investors Service (KIS). A stratified, random sample was drawn from private business organizations that were listed in the databases of KIS. That is, we created a  $5 \times 4 \times 4$  matrix based on the industry (i.e., manufacturing, banking, service, construction, and other), organization size (i.e., less than 50 employees; between 50 and 299 employees; between 300 and 999 employees; more than 1,000 employees), and physical location of the firms (i.e., Metropolitan region, Northern-central region, Southeastern region, and Southwestern region). The initial sample of 1,160 organizations was categorized into each cell depending on the above firm characteristics. Approximately 35 % of organizations were randomly selected from each cell of the matrix to avoid potential problems of over- or under-sampling of specific cells, resulting in a final sample of 401 organizations. Over a two-month period, data were collected from 6,053 employees of 263 companies, with a response rate of 65.6 %. In each organization, top management was contacted to obtain necessary information about the organization. We matched the corporate survey data with the financial performance data obtained over the 6-month period following the survey. Of the 263 organizations, 116 companies with no financial information were excluded from the sample.

The final analysis sample included 4,321 employees in 147 companies representing manufacturing ( $n = 68$ ), banking ( $n = 23$ ), service ( $n = 21$ ), construction ( $n = 8$ ), and other industries ( $n = 27$ ). The sample also included 147 top managers, including the CEO (4.8 %), executive directors (69.4 %), and managing directors (25.9 %). Among these top managers, 99.3 % were male, with an average age of 48.5 years ( $SD = 6.05$ ) and average organizational tenure of 13.1 years ( $SD = 9.10$ ). The average number of employee participants per company was 29.39 ( $SD = 14.84$ ). Employee sample included 72.9 % males with an average age of 35.5 years ( $SD = 7.79$ ) and average organizational tenure of 8.4 years ( $SD = 7.16$ ). To reduce potential biases arising from same source variance (Podsakoff et al. 2003), we randomly allocated employees of each organization into two subgroups of comparable sizes (Subgroups A and B), ranging between 5 and 53 with a mean of 14.71 members per subgroup. The demographic composition of the two subgroups (i.e., gender, average age, and average tenure) did not exhibit any significant differences (all  $p > .50$ ).

## Measures

We tested the present hypotheses using data from multiple constituents (top management, two separate subgroups of employees). Top management reported the level of top management ethical leadership. Organizational members in Subgroup A reported ethical climate and OCB, whereas those in Subgroup B rated the firm's procedural justice climate. Firm financial performance was operationalized as the operating profit over the 6-month period following the survey based on financial data archived by KIS. All constructs were assessed by multi-item measures using a five-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*). Employee responses were aggregated to the organization level for analysis. All scales exhibited acceptable levels of (a) scale reliability, (b) within-organization agreement among employees (all  $r_{wg(j)}$  values  $>.70$ , LeBreton and Senter 2008), and (c) intraclass correlations that reflect between-organization variations in employee ratings (all ICC(1) values  $>.05$  and all ICC(2) values  $>.60$  except firm-level OCB, which had an ICC(2) value of .59) along with the significant organization level effect (i.e., all  $F$  values for the AVOVA,  $p < .001$ ) (Chen et al. 2004).

### *Top Management Ethical Leadership (Top Management)*

To assess the level of top management ethical leadership, we used the following five items ( $\alpha = .80$ ) from Brown et al.'s (2005) measure of ethical leadership: (a) "I discuss business ethics or values with employees"; (b) "I set an example of how to do things the right way in terms of ethics"; (c) "I conduct my personal life in an ethical manner"; (d) "I take into account the best interests of employees in making decisions"; and (e) "I define success not just by the results but also the process through which they were achieved."

### *Ethical Climate (Employees in Subgroup A)*

Ethical climate was measured by three items ( $\alpha = .74$ ,  $r_{wg(3)} = .88$ , ICC(1) = .15, ICC(2) = .72,  $F = 3.55$ ,  $p < .001$ ) that were used in prior studies (Treviño et al. 1998; Victor and Cullen 1988): (a) "Employees in our company are expected to adhere to ethical rules and procedures prescribed by the company"; (b) "Employees in our company are expected to comply with the law and professional standards over and above any considerations"; and (c) "Employees in our company decide for themselves what is ethically right."

### *Procedural Justice Climate (Employees in Subgroup B)*

Adopting existing measurement items (Ehrhart 2004; Walumbwa et al. 2010), we used a three-item scale to measure the

level of procedural justice ( $\alpha = .82$ ,  $r_{wg(3)} = .87$ ,  $ICC(1) = .09$ ,  $ICC(2) = .60$ ,  $F = 2.52$ ,  $p < .001$ ): “In our company, all decisions are made (a) in accordance with clear rules and standards, (b) based on consistent procedures, and (c) free of biased views and personal interests.”

#### *Firm-Level OCB (Employees in Subgroup A)*

We used a four-item scale ( $\alpha = .70$ ,  $r_{wg(4)} = .93$ ,  $ICC(1) = .09$ ,  $ICC(2) = .59$ ,  $F = 2.43$ ,  $p < .001$ ) used in prior studies (Ehrhart 2004; Mayer et al. 2009; Walumbwa et al. 2010) to assess the level of employees’ OCB. The scale included the following items: (a) “I help others with their work when they have been absent”; (b) “I willingly give my time to help others who have work-related problems”; (c) “I do not complain about the company outside”; and (d) “I comply with company rules and regulations even when no one is watching.”

#### *Financial Performance (Korea Investors Service)*

In keeping with existing studies (Chun et al. 2013), financial performance was operationalized as the operating profit over the six-month period following the survey. To control the effect of organization size, the operating profit of a company was divided by the number of employees, thereby resulting in the measure of the operating profit per employee.

#### *Control Variables*

In our analysis, we controlled the effects of organization size and industry type that may bear significance for organizational outcomes. Scholars have found firm size to be a critical firm-specific factor that affects organizational performance (Lev et al. 2010). In the present data, firm size was indicated by a scale with four categories indicating the number of employees (1 = below 50; 2 = 50–299; 3 = 300–999; 4 = above 1,000). Moreover, industry type has been acknowledged as another critical determinant of organizational performance (Longenecker et al. 2006). To control the effects of industry type, we created four dummies for five industry categories: manufacturing, banking, services, construction, and others. Further, we controlled the effects of control variables on all endogenous variables in our model because of the high correlation between ethical and procedural justice climate and the banking industry dummy.

## Results

Although we assessed firm financial performance using objective data, other variables relied on psychometric

measures that were reported by top managers and employees. To test empirical distinctiveness of the four psychometric measures (i.e., top management ethical leadership, ethical climate, procedural justice climate, and OCB), we conducted a confirmatory factor analysis (CFA) of the 15 items constituting the measures. The four-factor model exhibited a very good fit to the observed data ( $\chi^2$  ( $df = 39$ ) = 45.72,  $p = .213$ ; CFI = .99; RMSEA = .034; AIC = 207.718) and performed better than any alternative three-factor, two-factor, and single-factor models (all  $p < .001$  based on  $\chi^2$  difference tests). The CFA results support the empirical distinctiveness of the four variables. The descriptive statistics and correlations among study variables are reported in Table 1. To validate our theoretical framework empirically, we conducted a series of structural equation modeling (SEM) analyses as described below.

#### Hypothesized Model and Plausible Alternative Models

We first tested the hypothesized model, as shown in Fig. 1. The hypothesized structural model produced a good fit to the observed relations among variables (Hu and Bentler 1999):  $\chi^2$  ( $df = 11$ ) = 14.49,  $p = .207$ ; CFI = .98; RMSEA = .054; AIC = 102.488. Nevertheless, it is possible that the mediating roles of ethical and procedural justice climate are only partial rather than complete. Thus, we tested the possibility of partial mediation by adding the following direct effect paths: (a) direct effect of top management ethical leadership on procedural justice climate; (b) direct effects of top management ethical leadership on firm-level OCB and financial performance; and (c) direct effects of ethical climate on firm-level OCB and financial performance. In all three cases, the partial mediation model with additional direct effect paths failed to improve the model fit significantly ( $\Delta\chi^2$  ( $\Delta df = 1$ ) = 1.94,  $p > .10$ ;  $\Delta\chi^2$  ( $\Delta df = 2$ ) = 3.30,  $p > .10$ ;  $\Delta\chi^2$  ( $\Delta df = 2$ ) = 2.55,  $p > .10$ , respectively), and none of the added paths was statistically significant. Further, we tested the possibility that top management ethical leadership predicts the procedural justice climate, which then explains ethical climate and subsequent organizational outcomes. This model with reverse causality between ethical climate and procedural justice climate exhibited a worse model fit than the hypothesized model:  $\chi^2$  ( $df = 11$ ) = 20.915.459,  $p = .163$ ; CFI = .98; RMSEA = .061; AIC = 103.446. Therefore, the present data supported the full mediation model as depicted in Fig. 1.

#### Hypothesis Testing

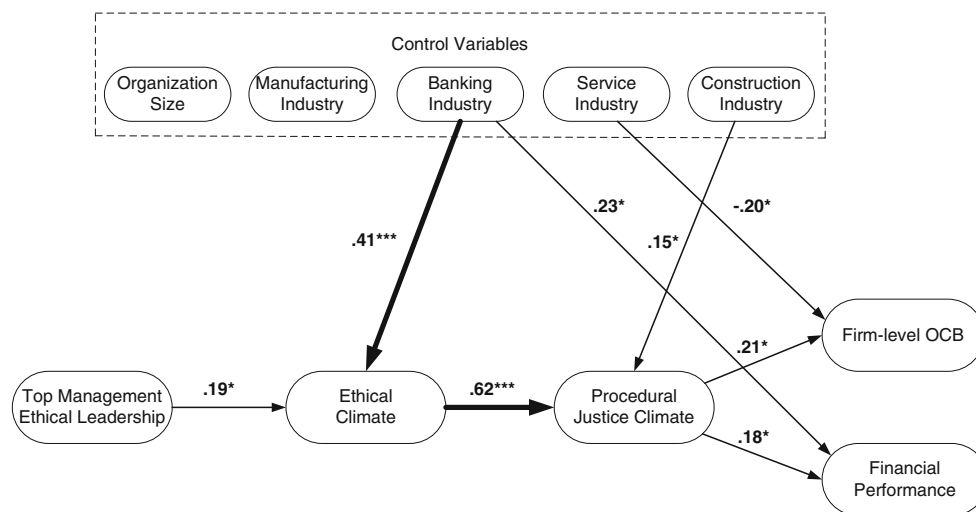
Results of the best-fitting, hypothesized model are presented in Fig. 2. Among the control variables, banking

**Table 1** Means, standard deviations, and correlations among study variables

Variables	M	SD	1	2	3	4	5	6	7	8	9	10
1. Organization Size	3.17	.83	–									
2. Manufacturing Industry	.46	.50	.23**	–								
3. Banking Industry	.16	.36	.06	–.40**	–							
4. Service Industry	.14	.35	–.25**	–.37**	–.17	–						
5. Construction Industry	.06	.23	–.05	–.22**	–.10	–.10	–					
6. Top Management Ethical Leadership	3.82	.56	.25**	.06	.08	–.25**	.03	–				
7. Ethical Climate	3.37	.30	.19	–.01	.36**	–.17	–.02	.25**	–			
8. Procedural Justice Climate	3.23	.31	.12	–.05	.21*	–.01	.11	.23*	.62**	–		
9. Firm-level OCB	3.59	.21	.21*	–.07	.22*	–.18	–.01	.22*	.64**	.51**	–	
10. Financial Performance	.06	.18	.02	–.07	.26**	–.09	.01	–.01	.20*	.22*	.19*	–

Note Unit of analysis is organization ( $N = 147$ )

\*  $p < .05$ ; \*\*  $p < .01$

**Fig. 2** Final structural model predicting organizational outcomes

industry was a significant predictor of ethical climate and financial performance ( $\beta = .41$ ,  $p < .001$  and  $\beta = .23$ ,  $p < .05$ , respectively). Construction industry was significantly associated with procedural justice climate ( $\beta = .15$ ,  $p < .05$ ). Service industry was negatively related to firm-level OCB ( $\beta = -.20$ ,  $p < .05$ ). After controlling for its indirect effects through ethical and procedural justice climate, top management ethical leadership was not significantly related to any of the organizational outcomes. Thus, Hypothesis 1 was disconfirmed.

The SEM results revealed that top management ethical leadership was positively associated with ethical climate ( $\beta = .19$ ,  $p < .05$ ), which confirmed Hypothesis 2. Our analysis likewise supported Hypothesis 3 in that ethical climate was significantly related to procedural justice climate ( $\beta = .62$ ,  $p < .001$ ). Procedural justice climate, in turn, was a significant predictor of both firm-level OCB and

firm financial performance ( $\beta = .21$  and  $.18$ , respectively, both  $p < .05$ ), thereby supporting Hypothesis 4.

Hypothesis 5 further suggested that ethical and procedural justice climate mediate the effects of top management ethical leadership on OCB and financial performance. Following recent recommendations (Mackinnon et al. 2007; Shrout and Bolger 2002), we validated our mediation hypothesis by employing the product-of-coefficient approach. We tested the statistical significance of the indirect effects of top management ethical leadership on firm-level OCB and financial performance using the bootstrapping procedure. This procedure has been increasingly accepted and recommended among researchers because it avoids the problems prompted by asymmetric and non-normal sampling distributions that often characterize mediated effects (Mackinnon et al. 2007). As shown in Table 2, bootstrap analyses provided support for most



**Table 2** Indirect effects of mediated relationships

	Product of coefficients			Bootstrapping bias-corrected 95 % CI	
	Point estimate	SE	P	Lower	Upper
Top Management Ethical Leadership → Ethical Climate → Procedural Justice Climate	<b>.08</b>	<b>.03</b>	<b>.01</b>	<b>.03</b>	<b>.15</b>
Top Management Ethical Leadership → Ethical Climate → Firm-level OCB	<b>.06</b>	<b>.02</b>	<b>.01</b>	<b>.01</b>	<b>.10</b>
Top Management Ethical Leadership → Ethical Climate → Financial Performance	.02	.01	.10	.00	.05
Top Management Ethical Leadership → Procedural Justice Climate → Firm-level OCB	<b>.04</b>	<b>.02</b>	<b>.02</b>	<b>.01</b>	<b>.08</b>
Top Management Ethical Leadership → Procedural Justice Climate → Financial Performance	<b>.02</b>	<b>.01</b>	<b>.08</b>	<b>.01</b>	<b>.05</b>
Ethical Climate → Procedural Justice Climate → Firm-level OCB	<b>.07</b>	<b>.04</b>	<b>.05</b>	<b>.01</b>	<b>.15</b>
Ethical Climate → Procedural Justice Climate → Financial Performance	<b>.06</b>	<b>.04</b>	<b>.05</b>	<b>.01</b>	<b>.18</b>
Top Management Ethical Leadership → Ethical Climate → Procedural Justice Climate → Firm-level OCB	<b>.03</b>	<b>.02</b>	<b>.04</b>	<b>.01</b>	<b>.07</b>
Top Management Ethical Leadership → Ethical Climate → Procedural Justice Climate → Financial Performance	<b>.02</b>	<b>.02</b>	<b>.03</b>	<b>.01</b>	<b>.06</b>

Note Bootstrap sample size = 1,000. Coefficients in bold indicate significant mediation. CI confidence interval

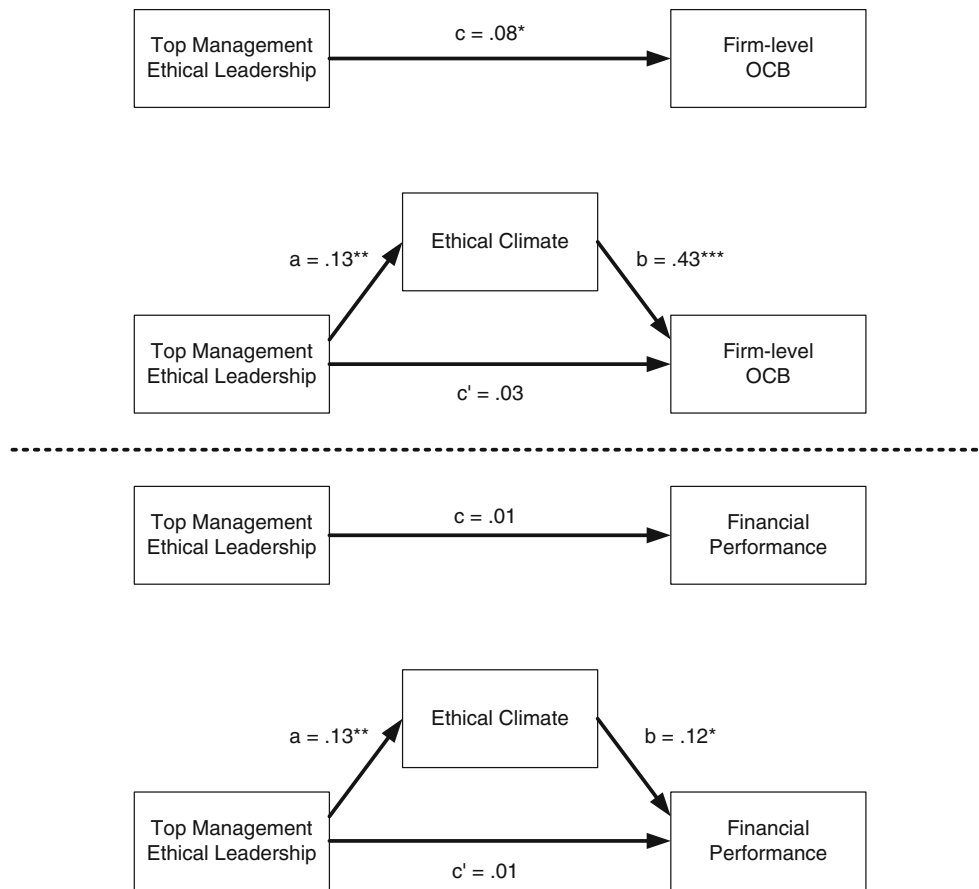
mediated relationships implied in our research framework. The double-mediated relationship posed in Hypothesis 5 was also supported for both outcomes: Top management ethical leadership exerted meaningful indirect effects on both firm-level OCB (point estimate = .03,  $p < .05$ , confidence interval of .01 and .07) and firm financial performance (point estimate = .02,  $p < .05$ , confidence interval = .01 and .06) through ethical and procedural justice climate.

Figures 3 and 4 further elaborate the mediating processes proposed in Hypothesis 5. In Fig. 3, the bootstrap procedure indicated a significant main effect of top management ethical leadership on firm-level OCB ( $b = .08$ ,  $p < .05$ ), which became insignificant with the introduction of the indirect paths via ethical climate ( $b = .03$ , *ns.*). With the significant indirect effect as reported in Table 2, these results demonstrated full mediation by the ethical climate of the relationship between top management ethical leadership and OCB. By contrast, the main effect of ethical leadership on financial performance was not significant, and its indirect effect via ethical climate was not significant either (see Table 2), thereby rejecting the mediating role of the ethical climate in explaining financial performance.

Figure 4 shows that the effect of top management ethical leadership on firm-level OCB was fully mediated by the procedural justice climate. Although the direct effect of top management ethical leadership on financial performance was not significant, it was a significant predictor of procedural justice climate ( $b = .12$ ,  $p < .05$ ), which in turn explained financial performance ( $b = .14$ ,  $p < .05$ ). The indirect effect of ethical leadership on financial performance via procedural justice climate was also statistically significant (point estimate = .02,  $p < .10$ ). Based on these patterns, we concluded that procedural justice climate offered a meaningful intervening process through which ethical leadership affects the two organizational outcomes. Overall, the mediating process was more salient in predicting firm-level OCB than firm financial performance.

**Robustness of the Present Results**

Although a path analysis using SEM allows an omnibus test of the predictive relationships involving multiple outcomes, scholars have argued that SEM may produce less reliable results in the case of small samples, in which the data often fail to fulfill typical statistical assumptions, such as multivariate normality (Cassel et al. 1999). As an alternative, researchers have increasingly employed partial least square (PLS) modeling (Chin 1998), which tends to produce robust results when facing various inadequacies such as missing values, model misspecification, and small samples (Cassel et al. 1999). Considering that our sample included a modest number of observations from 147 organizations, we employed PLS modeling using Smart-PLS 2.0, which is a PLS-based path-modeling program (Ringle et al. 2005). This PLS analysis produced almost identical path coefficients along with comparable statistical significance levels. All in all, the present results based on SEM procedures appeared robust and were not substantially affected by the analytic procedure applied.



**Fig. 3** Indirect effects of top management ethical leadership on organizational outcomes via ethical climate. *Note* The numbers represent the unstandardized regression coefficients that were derived from a bootstrap procedure. The  $a$  path represents the relationship

between the predictor variable and the mediator variable; the  $b$  path represents the relationship between the mediator variable and the outcome variable; the  $c$  path represents the total effect; and the  $c'$  path represents the direct effect. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

## Discussion

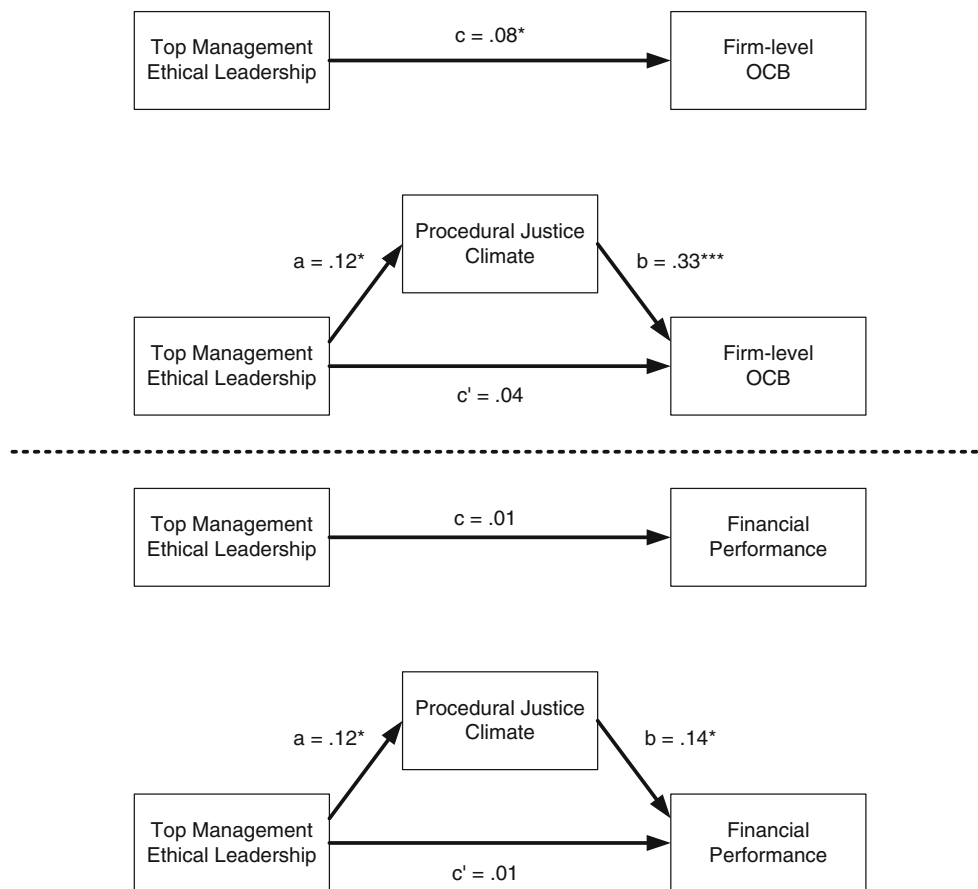
A core challenge of emerging managerial agenda related to corporate ethical initiatives is whether the ethical requirements can be fulfilled without hurting (if not enhancing) critical organizational outcomes, particularly the firm's financial goals (Chun et al. 2013). When top managers are heavily concerned about making ethical decisions, they may feel that they will slow down business processes and discourage expedient actions, which can result in reduced operational efficiency, and thus negatively affect their financial performance (Rettab et al. 2009). Given the priority of financial goals of business organizations (after all, they are “for-profit organizations”), top managers will actively pursue corporate ethics only when ethical initiatives are not an impediment to their operation and do not impose financial damage to the organization. For this reason, in reality, ethical behavior might not be institutionalized into the decision making processes of top management. The present study provides some answers to

such a dilemma by demonstrating whether exercising ethical leadership is beneficial to firm performance.

Departing from existing studies that focus on ethical managers and their effects on employee attitudes and outcomes mostly at the individual or group levels of analysis, the present research is one of the very few attempts to empirically test the effects of top management ethical leadership on firm-level outcomes. Moreover, by examining the mediating processes involving firm-level ethical climate and procedural justice climate, we identify potential internal mechanisms through which the ethical leadership of top managers can affect organizational outcomes. In this section, we highlight theoretical and practical implications of the study as well as its limitations that inform directions for future research.

### Theoretical Implications

The main premise of the present study is that the ethical beliefs and behavior of top management are crucial for the



**Fig. 4** Indirect effects of top management ethical leadership on organizational outcomes via procedural justice climate. *Note* The numbers represent the unstandardized regression coefficients that were derived from a bootstrap procedure. The *a* path represents the relationship between the predictor variable and the mediator variable;

the *b* path represents the relationship between the mediator variable and the outcome variable; the *c* path represents the total effect; and the *c'* path represents the direct effect. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

performance of contemporary organizations. Our data revealed that top management ethical leadership and subsequent organizational climates can be observed in different degrees, depending on the size of the organization and industry to which it belongs. Specifically, top management ethical leadership and firm ethical climate were positively related to organization size, suggesting that bigger organizations are more concerned with ethical issues (see Table 1). Companies in the banking industry exhibited higher levels of ethical climate and procedural justice climate. This finding may be indicative of the conservative nature of the business due to strict governmental regulations and public scrutiny for transparency (Green 1989). This pattern also endorses the premise of institutional theory (Scott 1995), which suggests that organizations in similar types of industries (e.g., banking) tend to adopt similar practices.

Although the direct effects of top management ethical leadership on organizational outcomes were insignificant,

our mediation analysis clearly suggested that it affects organizational outcomes via intermediate organizational processes (see Table 2; Fig. 4). The lack of a direct relationship between ethical leadership and firm performance can be explained by the potential delayed effect of ethical leadership on firm performance (Long and Driscoll 2008). Ethical leadership may not have been directly linked to the firm performance in subsequent two quarters because shaping the ethical and procedural justice climates through ethical leadership of top management may take time. The overall mediation patterns depicted in Figs. 3 and 4 provide support for the basic tenet of institutional theory (Scott 1995), which posits that top management leadership, as an institutional enabler, affects organizational outcomes by shaping internal organizational context that involve employee perceptions (Choi and Chang 2009). These findings also endorse the validity of the leadership-climate-outcome framework (e.g., Mulki et al. 2009; Ozelik et al. 2008; Walumbwa et al. 2010).

Our comparison of theoretically plausible alternative SEM models suggested that top management ethical leadership is more directly related to ethical climate than procedural justice climate. When top managers exhibit ethical characteristics, employees may develop corresponding climate perceptions related to general ethical principles and practices first before proceeding to hold specific climate perceptions related to the fairness of work-related decision-making practices (Cropanzano et al. 2003). As revealed in our analyses, procedural justice climate forms a stronger predictor of firm-level OCB and financial performance, compared with ethical climate. Ethical leadership and climate may improve firm performance by developing procedural justice in the employees' minds that directly invigorate their task dedication and collective efforts toward achieving organizational goals (Luria and Yagil 2008). Taken together, these results are consistent with Neal et al.'s (2000) findings that general organizational climate affects employee behavior and performance by shaping a specific form of organizational climate, which is proximal to organizational outcomes.

Finally, the current study makes a rare empirical contribution by investigating OCB at the firm level and its firm-level predictors. The enormous body of research on OCB has been developed at the individual and work-unit levels of analysis with regard to the antecedents and consequences of OCB (Podsakoff et al. 2009). In contrast, OCB has been rarely examined at the organization level, and very little is known about the firm-level processes associated with OCB. This research gap is rather surprising given that the OCB construct was initially introduced as a behavior in aggregate that helps organizational performance, thus claiming its value as an organization-level variable from its inception (Organ 1988). By showing that top management ethical leadership can foster OCB within the firm through the formation of ethical and procedural justice climate, the current study demonstrates the roles of ethical leadership and climate as predictors of firm-level OCB, thus expanding the OCB literature to the firm level of analysis.

### Practical Implications

The present findings offer several implications for business leaders and top managers. Our analysis clearly demonstrates that fulfilling the increasing social expectation and standards for ethical management and achieving organizational financial goals are not mutually exclusive. Rather, they can reinforce each other, creating a positive spiral that can be observed in a number of successful business organizations with strong reputations for corporate social responsibility and transparency (Rettab et al. 2009). In pursuit of corporate ethics, top managers should serve as role models by demonstrating ethical leadership, before

requiring employees to engage in ethical work behavior. Given that the ethical leadership of top managers has a positive impact on employees' behaviors through cascading effects (Mayer et al. 2009), top managers' commitment and dedication toward corporate ethics would be a critical precondition for cultivating an ethical climate and enhancing desirable work behaviors. To this end, organizations can hire executives with strong ethical conviction and provide ethics training for them (Mayer et al. 2009). Ethical leadership development programs can help top managers analyze and develop their own ethical leadership. In addition, top management can signal support for ethical values by communicating with employees regularly about ethical issues and using appropriate rewards and punishments to promote ethical behavior (Treviño et al. 2003).

One caveat of the current study is that the link between ethical leadership and organizational outcomes is indirect and likely to unfold slowly over time. Specifically, our analysis showed that unless top management ethical leadership affects the ethical and procedural justice climates of the firm, its influence on the firm's financial performance can be limited. In a sense, this entire process emulates an organizational change process often driven by transformational leaders (Brown and Treviño 2006; Simola et al. 2010). Changing the organizational climate and employee attitudes and behavior requires time, and it takes longer to accrue financial performance benefits from such changes (Chun et al. 2013). Therefore, top managers need to recognize that ethical initiatives should be regarded as a long-term managerial agenda, and to exert effort in fostering ethical and procedural justice climates within their firm as a way to enhance collective OCB and financial performance.

### Study Limitations and Directions for Future Research

The present study expands the corporate ethics literature by rendering both conceptual and empirical contributions. The present findings, however, should be interpreted with caution considering several limitations. First, although financial performance data were collected over a six-month period after the survey, all other variables were collected at the same time. As such, the causal directions of the relationships examined may not be clearly determined. Furthermore, in addition to ethical leadership, other forms of behavior or leadership of top management (e.g., charismatic leadership; Agle et al. 2006) that might have a potential effect on firm financial performance were not controlled for in this study, which also limits causality between top management ethical leadership and firm performance. Thus, future researchers may need to assess the effect of ethical leadership on organizational climate and performance by employing more rigorous research designs (e.g., longitudinal design, inclusion of more control variables).

Second, the ethical leadership of top management was assessed by top managers' self-reports on ethical beliefs and behaviors. Similarly, firm-level OCB was assessed using the aggregation of employee ratings of individual-level OCB. These measures could invite biases, such as social desirability. However, scholars have acknowledged that employee ratings of ethical leadership are less accurate than the self-evaluation of top managers, unless the employees closely work with top managers and possess specific information on the ethical values and behaviors of the latter (Brown and Treviño 2006). Hence, prior studies have used the top managers' self-reports on moral values and ethical behaviors to assess their ethical leadership (e.g., Hood 2003; Ozcelik et al. 2008; Schminke et al. 2005; Weber 2010). Similarly, according to a systematic comparison of the validity of different OCB operationalizations at the group level, the aggregation of members' self-reported OCB ratings and the manager's ratings of the group's OCB exhibited comparable levels of construct validity, and their empirical relationships with other variables were basically identical (Choi 2009). Nevertheless, to reduce potential bias from self-reports, future studies may use reports of direct subordinates of top managers to assess their ethical leadership and employ manager ratings to assess firm-level OCB (Brown et al. 2005).

Third, due to the practical limitations of the data, we selectively adopted core items regarding top management ethical leadership, ethical climate, procedural justice climate, and OCB. Although scale items used in our study represent key dimensions of each variable, and our measurement scale revealed sufficient reliability, the use of abbreviated scales still has possibility to limit the construct validity. Future studies may benefit from using more comprehensive measures of the given constructs; thus, need to replicate the findings of the present study using the full set of items included in the original scale.

Finally, although ethics is considered as a universal value (Schwartz 2005) and ethical leadership is endorsed across different cultures (Resick et al. 2006), the present research context may affect our findings because Korean organizations operate within, and are exposed to distinct organizational culture and social demands (Kwon 2011). The lack of a direct relationship between top management ethical leadership and financial performance may be attributed to the relatively low social expectation and appreciation of ethical management in the Korean context. Given that the importance of and demand for business ethics are not as strong in developing countries as in developed ones (Blackburn et al. 2006), a weaker relationship may form between ethical leadership and financial performance in emerging markets such as Korea because of the relatively weak instrumentality associated with ethical management (Sandholtz and Koetzle 2000). Moreover, the meaning, values, and significance of

top management ethical leadership and subsequent firm-level ethical and procedural justice climates may vary across industries as well. Thus, further cross-cultural and international comparisons of the performance implications of ethical leadership and corporate ethics for different industries are in order.

Despite these limitations, the present study makes meaningful contributions to the literature of corporate ethics, leadership, organizational climate, and OCB. It expands current understanding of the firm-level dynamics of ethical management by theorizing and empirically validating the strategic value of top managers' ethical leadership with regard to critical organizational outcomes, and by specifying the way through which ethical top leaders affect those outcomes. Our findings confirmed the instrumental value of top management ethical leadership for business organizations, paving the way for further implementation of ethical initiatives that are in high demand among contemporary firms (Brown and Treviño 2006). In this research effort, we also demonstrated the multilevel applicability of theories on leadership, climate, and citizenship behavior at the firm level of analysis. Further theoretical and empirical elaboration can identify potential boundary conditions of the current firm-level processes. It would be intriguing to explore plausible interactive relationships among internal dynamics, which involves organizational climates and employee outcomes, with external relations, which include external constituents and the firm's reputation and legitimacy (Long and Driscoll 2008; Roberts and Dowling 2002). Simultaneous and longitudinal examination of internal dynamics and external relations should reveal potential cyclical processes of micro and macro factors that unfold over time to deepen our understanding of the link between ethical leadership and organizational outcomes.

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