



# Customer orientation and firm performance: The joint moderating effects of ethical leadership and competitive intensity

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## ABSTRACT

Although the importance of customer orientation (CO) has been recognized, its relationship with firm performance is far from clear. This lack of clarity is partly because the impact of CO on firm performance may depend on certain internal or external factors. Based on social learning theory and an interactional perspective, this study concurrently explores the separate and joint moderating effects of ethical leadership and competitive intensity. Survey data from 264 Chinese firms was collected to test the hypotheses. The results show that humane leadership and moderation leadership help firms to better leverage CO for enhancing their performance. The absence of moderation leadership may be particularly harmful for firms operating in a less competitive environment while the moderating effect is not influenced by competitive intensity. In addition, justice leadership has a positive impact for firms operating in a more competitive environment, which assists firms to better realize the benefits of CO.

## 1. Introduction

Customer orientation (CO) reflects a firm's strategic focus on the market, and is defined as a “firm's orientation toward the promotion and support for the collection, dissemination, and responsiveness to market intelligence to serve customer needs” (Atuahene-Gima & Ko, 2001, p.55). Existing studies have demonstrated the significant relationship between CO and firm performance (e.g., Feng, Sun, Zhu, & Sohal, 2012; Frambach, Fiss, & Ingenbleek, 2016; Valenzuela, Mulki, & Jaramillo, 2010; Ziggers & Henseler, 2016). The findings in these studies have suggested that CO is crucial for helping firms better understand customer demands and achieve sales growth (Feng et al., 2012; Valenzuela et al., 2010), acquiring competitive advantages and achieving business success (Ziggers & Henseler, 2016).

Despite the fact that the importance of CO has been well acknowledged in the literature, there is inconsistency with previous findings, revealing a positive (e.g., Ziggers & Henseler, 2016), insignificant (e.g., Harris, 2001), or even negative (e.g., Grewal & Tansuhaj, 2001) relationship between CO and firm performance. As a result, some scholars suggested that the impact of CO on firm performance may depend on certain internal or external factors (Feng et al., 2012; Frambach et al.,

2016; Luo, Hsu, & Liu, 2008; Smirnova, Rebiuzina, & Frösén, 2018). Along this line of research, existing literature has identified a range of contextual factors including institutional networking (Luo et al., 2008), industry type (Sin, Tse, Yau, Chow, & Lee, 2005), and environmental factors (Gaur, Vasudevan, & Gaur, 2011) that influence the CO-performance relationship.

However, most of the previous studies focused only on the external factors affecting the CO-performance link while ignoring the moderating role of internal factors. According to the interactional perspective (Pfeffer, 1997), the combined moderating effect of different factors is more appropriate to explain organizational behaviors. This is because internal and external factors often coexist in a firm (Gaur et al., 2011; Kalamas, Cleveland, & Laroche, 2014), and they will influence the effectiveness of firm behavior jointly (Feng, Cai, Wang, & Zhang, 2016). Following this view, we take into account both internal and external factors when examining the influence of CO on firm performance. We identify ethical leadership as an internal factor that impacts employee behavior (Bedi, Alpastan, & Green, 2016) and competitive intensity (CI) as an external factor to examine their separate and joint moderating effects on the CO-performance link.

While CO is important, customers also expect firms to be ethical

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when meeting their demands (Valenzuela et al., 2010). Building on social learning theory (Bandura, 1986; Neubert, Carlson, Kacmar, Roberts, & Chonko, 2009), we argue that ethical leaders can act as an influential role model to establish an ethical climate by encouraging ethical behaviors among their followers (Mayer, Kuenzi, & Greenbaum, 2010). Thus, ethical leadership may play an important role in meeting the ethical needs of customers, which affects the CO-performance relationship. In other words, CO is more likely to enhance firm performance under a higher level of ethical leadership.

In addition, CI reflects the degree of external market competition, which may further influence the effectiveness of CO (Feng et al., 2016). In the context of lower level of CI, firms may achieve their performance goals even they do not change anything (Taoketao, Feng, Song, & Nie, 2018). On the contrary, firms should focus on customer needs and establish long-term relationships with customers to differentiate them from competitors in the context of fierce market competition.

Yet to date, little empirical attention has been paid to the above internal and external factors concurrently when exploring CO and its performance consequences. We address this gap by examining the moderating effects of ethical leadership, CI, and their joint effects on the CO-performance relationship.

This study contributes to the CO and ethical leadership literature in three ways. First, we reveal that the CO-firm performance relationship is moderated by ethical leadership, an internal factor. This extends the previously identified range of contingency factors that influence the CO-performance relationship, by highlighting ethical leadership as a novel and determining factor. Second, we examine different dimensions of ethical leadership, and identify that these dimensions of ethical leadership function through different mechanisms to influence the CO-performance relationship. This further deepens our knowledge of the complex and multifaceted influence of ethical leadership on firms' CO and performance. Third, we contribute to previous knowledge by identifying CI in constraining the moderating effect of ethical leadership on firms' gaining improved performance from CO. It highlights that environmental conditions, intertwined with organizational leadership characteristics, need to be taken into consideration simultaneously when investigating the CO-performance relationship.

## 2. Theoretical foundation and hypotheses development

Social learning theory (Bandura, 1986; Neubert et al., 2009) and the interactional perspective (Pfeffer, 1997) serve as the major theoretical foundation of this study. Suggested by social learning theory, behaviors of employees will be influenced by ethical leaders via role modelling (Bandura, 1986). Then, employees model the behavioral pattern of their leaders by observing, emulating and replicating such behaviors to ensure they conform to acceptable ethical principles and standards (Babalola, Stouten, & Euwema, 2016; Trevino, 1986). For instance, ethical leaders serve as role models for the employees and foster in the organization an ethical climate, which further decreases the misconduct of employees (Mayer et al., 2010). Thus, it can be expected that when leaders exhibit ethical leadership, employees are motivated to exert more ethical efforts in achieving the goals of CO. In other words, ethical leadership tends to moderate the impact of CO on firm performance.

Since the effectiveness of CO depends on both internal and external factors (Gaur et al., 2011; Kalamas et al., 2014), we adopt the interactional perspective to explain the CO-performance relationship. An interactional approach focuses neither exclusively on internal factors nor exclusively on external factors but considers both and—above all—the interactions of the two (Kimmerle, Cress, & Hesse, 2007). Thus, we posit that the realization of the full benefits of CO is dependent on levels of CEO ethical leadership as well as competitive intensity. CO will be more effective when leaders of organizations exhibit ethical leadership and the external market competition is intensive.

Ethical leadership is essential in influencing the CO-firm performance relationship because it influences the internal climate of the

organization which guides employee's values, beliefs, and behaviors in dealing with daily tasks and customers (Newman, Ucbasaran, Zhu, & Hirst, 2014). The concept of ethical leadership has proven elusive but one widely utilized definition is "... the 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, Treviño, & Harrison, 2005, p.120). However, this view is limited in viewing ethical leadership as unidimensional.

In this study, we followed Eisenbeiss's (2012) conceptualization of ethical leadership as a multi-dimensional construct, as it integrates both Eastern and Western moral philosophies, which is appropriate for the study to examine firm orientation and performance in an Eastern cultural context (China). Other conceptualizations of ethical leadership, including Brown et al. (2005), are mainly developed from the Western cultural context and may not be readily applicable in the East. Eisenbeiss (2012) identifies four ethical dimensions that form the central orientations of ethical leadership: humane, justice, moderation, and responsible dimensions. This multi-dimensional framework offers a balanced view of ethical leadership, not only including Western ethical values but also including Eastern philosophies of morality, adopted by more recent studies (e.g., Wang, Feng, & Lawton, 2017).

In this study, we particularly look at humane, justice and moderation orientations of ethical leadership, as they are relatively more directly associated with influencing employee behaviors to generate firm internal resources for superior performance. The responsibility and sustainability orientation was not chosen because it is more relevant to managing external stakeholder perceptions than managing employees, and therefore related more to social performance than financial performance (Eisenbeiss, 2012). Humane leadership refers to *treating others with dignity and respect and to see them as ends not as means* (Eisenbeiss, 2012, p.795). Humane leaders pay close attention to employees' personal needs, fully recognize employees' rights and can sympathize with employees when they have problems (Kalshoven, Den Hartog, & De Hoogh, 2011). Justice leadership refers to *making fair and consistent decisions and not discriminating against others* (Eisenbeiss, 2012, p.796). Just leaders treat others in a way that is equitable, distribute work to employees fairly, and never hold employees responsible for outcomes that are not their fault (Kalshoven et al., 2011). Moderation leadership identifies leader characteristics of *embracing diversity and differences with regard to gender, nationality, religion etc., and respecting diverse ideas with modest attitude* (Eisenbeiss, 2012). It allows psychological freedom of employees to "be themselves" at work, which nurtures employee learning, innovation and psychological empowerment.

The conceptual model that depicts the hypothesized relationships is presented in Fig. 1.

### 2.1. Humane leadership

The impact of CO on firm performance relies heavily on the leadership style of humane leadership. Suggested by social learning theory, managers demonstrating humane leadership treat employees with respect, dignity and genuine support, which triggers employee learning and increases employee motivation to fully engage at work through individual and collective efforts (Barrick, Thurgood, Smith, & Courtright, 2015). The CO requires internal coordination among functional groups to reflect on and address customer needs collectively. A high level of employee engagement under humane leadership would facilitate information exchange and communication among designing, manufacturing and service sectors for product innovation and customization based on customer feedback (Jacob, 2006). Through intellectual and cognitive engagement of employees, product diversification can also be facilitated to fulfil the varied needs of different customer groups (Zahavi & Lavie, 2013).

Furthermore, employees under humane leadership are likely to engage their emotional resources while interacting with customers,

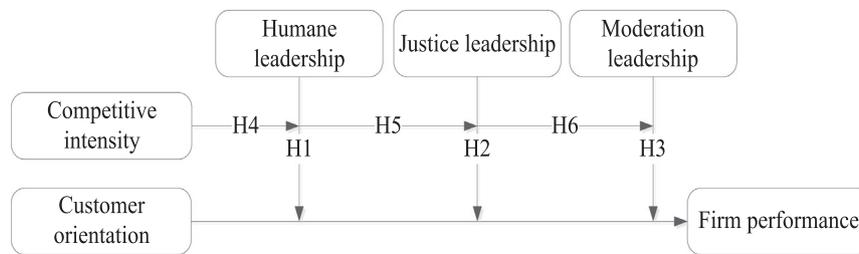


Fig. 1. Conceptual model.

which improves their customer linking capability through positive emotional exchange with customers. Employees with genuine support from their leaders can be resilient in coping with customers' negative emotions derived from product or service related problems. This can turn around customer negative emotions in a consistent manner through personalized caring, comforting, and patient explanations. Such customer emotion handling capabilities enable a deeper connection between customers and the firm, which enhances customer satisfaction and loyalty (Homburg, Wieseke, & Hoyer, 2009; Jones & Sasser Jr, 1995). Therefore, we hypothesize:

**H1.** Humane leadership moderates the relationship between CO and firm performance; that is, the positive impact of CO on firm performance is strengthened as humane leadership increases.

## 2.2. Justice leadership

The CO-firm performance relationship also depends on leader justice orientation which ensures employee contributions be recognized fairly and judged on the basis of transparent and consistent criteria and non-biased opinions (De Hoogh & Den Hartog, 2008; Eisenbeiss, 2012). Marketing literature has long confirmed the positive influence of customer value management on firm performance (Homburg, Droll, & Totzek, 2008; Ramani & Kumar, 2008).

Individuals are willing to respond with positive attitudes and exert more effort to achieve better performance if they perceive that their contributions are being judged fairly (Bandura, 1982; Brebels, De Cremer, Van Dijke, & Van Hiel, 2011; Oliver, 1974). Employees under justice leadership are likely to be optimistic about their career progression and become goal-directed in making decisions by aligning personal goals with organizational objectives. As CO requires effective management of customer values through prioritized attention and treatment toward profitable customers, employees' goal directed behavior increases firm capability in effective identification of profitable customers, and strategic allocation of time and attention based on the actual/potential profits derived from customers (Mulhern, 1999; Reinartz, Krafft, & Hoyer, 2004). It also helps in acquiring new profitable customers based on employee self-motivated and result-driven approach to engage customers. Employees under justice leadership help the firm maximize the overall profitability from its CO (Homburg, Steiner, & Totzek, 2009). Therefore, we predict that:

**H2.** Justice leadership moderates the relationship between CO and firm performance; that is, the positive impact of CO on firm performance is strengthened as justice leadership increases.

## 2.3. Moderation leadership

Moderation leadership involves finding a balance between different stakeholder interests and it is likely that employees under moderation leadership are willing to allow a greater say by customers in setting the terms of mutual interactions, which opens up avenues for customers to share information, suggestions and ideas with the firm for better performance from CO. Customer ownership in decision making promotes

the quality of the products and services provided (Ramani & Kumar, 2008), and enhances customer loyalty, commitment, and willingness to pay which improves financial performance of the firm (Homburg, Wieseke, & Hoyer, 2009). According to these arguments, moderation leadership is beneficial for firms' long-term performance with the CO. This leads to the following hypothesis:

**H3.** Moderation leadership moderates the relationship between CO and firm performance; that is, the positive impact of CO on firm performance is strengthened as moderation leadership increases.

## 2.4. CO, humane leadership and CI

Competitive intensity indicates the degree of competitive rivalry in a market (Feng, Wang, & Prajogo, 2014), which could alter customer perception of their power in the market. Based on the interactive perspective, such external market condition influences customers' responses to, and requirements of, firm customer-related strategies and treatments (Wetzel, Hammerschmidt, & Zablah, 2014). We expect that the influence of humane leadership on the relationship between CO and firm performance is higher in highly competitive markets than in less competitive markets. In highly competitive markets, the quality of products provided by different suppliers is often similar, and differentiation is often harder (Homburg, Müller, & Klarmann, 2011). Customers in highly competitive markets perceive they possess greater relative market power (Appiah-Adu & Singh, 1998) to demand more from firms to enhance their own outcomes from the relationship (Wetzel et al., 2014). As a consequence, firms need to rely more on fulfilling customer demands to gain competitive advantage. Employees are hence pressured to become a means of differentiation, by offering humane treatment, personalized care, and emotional satisfaction to customers as added value to products (Yim, Tse, & Chan, 2008). Humane leadership is therefore more beneficial in highly competitive markets, as it facilitates employees in creating more value in emotional pleasure, empathy and relationship intimacy. In low competitive markets where customers do not have many options, a low level of humane leadership may be sufficient as customers' purchasing behaviors are likely to be driven by functionality and quality of products, reducing the demand on emotional fulfilment. Against this background, we hypothesize:

**H4.** CI moderates the influence of humane leadership on the relationship between CO and firm performance; that is, the positive impact of humane leadership increases when the level of CI rises.

## 2.5. CO, justice leadership and CI

The enabling effect of justice leadership is contingent upon the levels of CI, in that justice leadership is most effective in markets with high CI. In highly competitive markets, customers are likely to have high demand in terms of the accuracy and the speed of responsiveness from the firm and employees' anticipation of their relative greater market power. That is to say, customer entitlement will lead to the effect of "want it *all* and want it *now*" (Fisk, 2010), where customers

require a high level of immediate gratification in the customer-supplier relationship. Highly profitable customers of a firm may develop an even higher sense of privilege. This requires employees to demonstrate greater effort in ranking customer importance and providing preferential treatment to retain and satisfy top-tier customers. However, customers tend to develop gratitude instead of entitlement for firms' preferential treatment when the market becomes less competitive (Wetzel et al., 2014). A low level of responsiveness would be sufficient for maintaining customer satisfaction. The moderating effect of justice leadership therefore is decreased. This leads to the following hypothesis:

**H5.** CI moderates the influence of justice leadership on the relationship between CO and firm performance; that is, the positive impact of justice leadership increases when the level of CI rises.

### 2.6. CO, moderation leadership and CI

The influence of moderation leadership on the CO-performance relationship is expected to be negatively moderated by CI. In other words, moderation leadership may be least beneficial in highly competitive markets. This is because in a buyer market characterized by high CI, customers are unlikely to have a sense of needing to control the customer-supplier relationship and firms need to take the initiative to gain customer attention and keep up with competitive offerings (Lacey, Suh, & Morgan, 2007; Morales, 2005). As a consequence, customer voice behavior enabled by moderation leadership may be viewed as time and effort consuming and hence reduce the potential for firm profitability from CO (Wetzel et al., 2014). However, in low competitive markets, customers are likely to value voice to demonstrate their importance and secure their benefits in the customer-supplier relationship. Therefore, moderation leadership is most beneficial in low competitive markets through customer voice rather than in highly competitive markets. Based on the above arguments, we suggest that the positive effect of moderation leadership is weakened in highly competitive markets. We hypothesize that:

**H6.** CI moderates the influence of moderation leadership on the relationship between CO and firm performance; that is, the positive impact of moderation leadership decreases when the level of CI rises.

## 3. Methods

### 3.1. Sample and data collection

Chinese firms were sampled to test our hypotheses. China is the fastest-growing market with high levels of customer demand and it is transitioning from a solely economic-centric society to one that is also social-centric (Luo et al., 2008), making it of particular interest to academics and practitioners. Accompanying the transition is the policy guidance for firms to act more ethically to become not only profit generators, but also responsible corporate citizens (He, Lu, Mol, & Beckers, 2012). Thus, China provides an ideal setting for investigating whether ethical leadership of firms can enable more economic returns from firms' CO, which ensures the realization of firm strategic objectives whilst allowing for prosocial processes in business activities.

Since this study aims to obtain results with generalization power, it will be appropriate to obtain samples with adequate variation. While it is extremely difficult to collect data from firms in every part of China, we attempted to investigate firms from different areas with high variations in terms of geographical locations and economic developments. Specifically, we strategically selected five provinces: Jiangsu, Guangdong, Shandong, Shaanxi, and Henan. Jiangsu and Guangdong are located, respectively, in the Yangtze River Delta and the Pearl River Delta, and both reflect the highest level of economic reform and marketization. Shandong represents the Bohai Sea Coastal Region and has

average economic development. Shaanxi is located in the northwest and is at a relatively low degree of economic development. Henan is in the middle part of China and represents the traditional agricultural area with a relatively lower degree of economic reform. Thus, these five provinces cover various locations and levels of economic development.

To improve the representativeness of sampled firms, we randomly chose firms based on the list of registered corporations from the Economy Commerce Committee. For each province, 300 firms were randomly selected to form our sampling frame, totalling 1500 firms. We employed professional interviewers to telephone these selected firms to gain the permission of research access. After explaining the academic nature of our study, 539 firms agreed to participate.

We then conducted the survey in two waves to reduce the influence of common method bias (Podsakoff, MacKenzie, & Podsakoff, 2012). Specially, CO, CI and three dimensions of ethical leadership were collected at time 1 (the 2013 survey), while firm performance was collected at time 2 (the 2014 survey). At time 1, we sent trained interviewers to firms consenting to participate in the survey and asked three informants to complete different part of the survey. The representative employees, including both front-line employees and middle-level managers, were asked to assess CEO's ethical leadership. In each group, we randomly chose 5 to 15 informants, and asked them to make a consensus response on the basis of in-group discussion. We then aggregated ratings from these two groups to compose a non-biased rating for CEO ethical leadership. In all, we obtained aggregated employee responses for 277 firms. At time 1, we also asked top managers to respond to the scales for CO and CI. At time 2 (six months after time 1), we asked top managers to respond to the scales of firm performance, and 264 samples were finally obtained. The overall response rate is 17.6%.

We show the basic information of sampled firms and respondents in Table 1. The final sample includes a wide range of industries, and thus the firms are representative. The middle-level managers and employee respondents respectively work in their current positions for 8.23 and 5.46 years on average.

To assess the non-response bias, we compared firm size and firm age between the responding and non-responding firms (Wang, Wang, Jiang,

**Table 1**  
Characteristics of sampled firms.

Industry	Frequency	Percentage
Food and beverage	7	2.65
Textile and apparel	6	2.27
Chemical and related products	14	5.30
Pharmaceutical and medical	6	2.27
Rubber and plastics	5	1.89
Non-metallic mineral products	16	6.06
Smelting and pressing	11	4.17
Metal products	19	7.20
Machinery and engineering	21	7.95
Transport equipment	10	3.79
Electrical machinery and equipment	25	9.47
Communication and computers related equipment	32	12.12
Instruments and related products	18	6.82
Service	65	24.62
Others	9	3.41
Number of employees	Frequency	Percentage
1–49	83	31.44
50–99	37	14.01
100–299	45	17.05
300–999	42	15.91
1000–1999	17	6.44
2000–4999	15	5.68
Over 5000	25	9.47
Ownership type		
State-owned and collective enterprises	83	31.44
Private enterprises	137	51.89
Foreign-invested enterprises	44	16.67

Yang, & Cui, 2016). No significant differences could be found at the 0.05 level, indicating a low possibility of non-response bias. We also compared firm size, firm age, annual sales and other variables between early and late responses (Huo, Zhao, & Zhou, 2014). No statistical differences were found at the 0.05 level, further revealing that non-response bias is not serious in our sample.

### 3.2. Measurements

We adopted or adapted measures from prior studies whenever possible. Each measurement item, except those for most control variables, used a seven Likert-type response. The measures of focal constructs are presented in the Appendix A.

We developed the questionnaire according to the procedures suggested by Gerbing and Anderson (1988). We first conducted five in-depth interviews with executives to better understand the constructs. Second, integrating information from an extensive review of existing literature and the exploratory interviews, we developed the initial questionnaire. Third, to ensure the content and face validity, the measures were subjected to expert assessment. The same 5 managers were asked to evaluate face validity of the constructs. We provided the nominal and operational definition of constructs to them and asked them to give suggestions. According to their feedback, we revised the items to enhance their clarity. We then conducted a pilot test with 10 additional managers to finalize the measures.

CO was measured with a scale of six items from Narver and Slater (1990) and adapted followed the work of Li, Wei, and Liu (2010). In addition, the construct of CEOs' humane leadership (ICC[1] = 0.38; ICC[2] = 0.59;  $r_{wg} > 0.70$ ) was measured with five items. One item was adopted from Eisenbeiss (2012) referring to treating employees with dignity and respect. The other four items were adopted from Kalshoven et al. (2011). Justice leadership (ICC[1] = 0.23; ICC[2] = 0.76;  $r_{wg} > 0.70$ ) was measured using a five-item scale developed by Kalshoven et al. (2011). The four items measuring moderation leadership (ICC[1] = 0.19; ICC[2] = 0.74;  $r_{wg} > 0.70$ ) were adapted from Eisenbeiss (2012). We averaged ratings over two groups of employees within each firm to get an aggregate rating of ethical leadership. The scale of CI measured by five items was derived from Jaworski and Kohli (1993). Seven items measuring firm performance were drawn from Li and Zhang (2007). We asked the respondent to assess the firm's performance relative to its major competitors on seven dimensions such as sales growth and return on assets.

#### 3.2.1. Control variables

We control the impacts of firm size, firm age and industry type. Large firms are likely to have relatively more resources available to create customer value (Van Doorn, Jansen, Van den Bosch, & Volberda, 2013). Firm age affects firm performance since old firms may become inefficient (Van Doorn et al., 2013). Firm size is measured by calculating the natural logarithm of the number of employees and firm age by calculating the natural logarithm of operating years. Industry type is controlled using a dummy variable, i.e., 1 = high-tech industries, and 0 = otherwise, as a firm's performance can be affected by the technological opportunities in each industry (Wei, Yang, Sun, & Gu, 2014). Technology turbulence, whose significant role in influencing firm performance has been proven (Wang, Lo, & Yang, 2004; Zhou, Yim, & Tse, 2005) was also controlled. It was measured by the scale from Jaworski and Kohli (1993) and adapted according to Sheng, Zhou, and Li (2011).

### 3.3. Social desirability bias

This study used two approaches to check for the possible presence of social desirability bias. First, we ensured informants anonymity and asked them to answer questions honestly. These techniques are likely to reduce respondents' evaluation apprehension and tendencies to answer questions as the society desires (Podsakoff et al., 2012). Second, we

adopted the five-item scale adopted from Hays, Hayashi, and Stewart (1989) to measure social desirability. Informants were asked to assess each item with "1" (true) and "0" (false). The sum score of the five items was used to measure social desirability (ranged from 0 to 5). The mean scores of social desirability were 1.19 (employee respondents) and 1.36 (top manager respondents) respectively, which indicated that social desirability bias was not strong in this sample.

### 3.4. Common method variance

To reduce the risk of common method variance (CMV), we followed approaches proposed by Podsakoff et al. (2012). First, we adopted multiple sources (three informants). Second, the independent and dependent variables were measured at different points of time (Podsakoff et al., 2012). Third, to control the contextual influences, we mixed the order of the questions by putting them on different pages of the questionnaire. Fourth, a confirmatory factor analysis (CFA) model that linked all items to a single factor was assessed. This model does not fit the data well [RMSEA = 0.20, NNFI = 0.86, CFI = 0.87, SRMR = 0.21]. Finally, we employed another CFA model by adding a common method variable to the unconstrained CFA model (Williams, Cote, & Buckley, 1989). The results showed that while the common method variable was controlled, each item loading was still significant on its corresponding construct. Hence, CMV is not serious in our study.

### 3.5. Reliability and validity

As presented in Table 2, each Cronbach's alpha value was above 0.80, all corrected item-total correlation CITC values were higher than

**Table 2**  
CFA results.

Construct	Item code	Factor loading	CITC	Cronbach's alpha	CR
Customer orientation	CO1	0.68	0.622	0.849	0.850
	CO2	0.69	0.644		
	CO3	0.79	0.709		
	CO4	0.68	0.633		
	CO5	0.65	0.567		
	CO6	0.69	0.624		
Humane leadership	HL1	0.81	0.733	0.881	0.885
	HL2	0.85	0.794		
	HL3	0.80	0.753		
	HL4	0.52	0.475		
	HL5	0.88	0.825		
Justice leadership	JL1	0.83	0.718	0.840	0.853
	JL2	0.84	0.760		
	JL3	0.52	0.459		
	JL4	0.63	0.578		
	JL5	0.82	0.750		
Moderation leadership	ML1	0.81	0.720	0.841	0.850
	ML2	0.86	0.727		
	ML3	0.63	0.602		
	ML4	0.75	0.685		
Competitive intensity	CI1	0.58	0.523	0.855	0.858
	CI2	0.87	0.782		
	CI3	0.73	0.682		
	CI4	0.78	0.698		
	CI5	0.72	0.664		
Firm performance	FP1	0.88	0.848	0.955	0.955
	FP2	0.91	0.881		
	FP3	0.88	0.853		
	FP4	0.90	0.869		
	FP5	0.83	0.814		
	FP6	0.84	0.829		
	FP7	0.83	0.814		
Technology turbulence	TT1	0.81	0.743	0.828	0.843
	TT2	0.51	0.454		
	TT3	0.90	0.794		
	TT4	0.77	0.647		

**Table 3**  
Mean, standard deviations and correlations of the constructs.

Constructs	Mean	S.D.	1	2	3	4	5	6	7	8	9
1. Customer orientation	5.576	0.904	<b>0.766</b>								
2. Humane leadership	5.402	1.042	0.536***	<b>0.769</b>							
3. Justice leadership	5.309	0.987	0.484***	0.599***	<b>0.720</b>						
4. Moderation leadership	5.416	1.034	0.508***	0.562***	0.549***	<b>0.768</b>					
5. Competitive intensity	4.750	1.099	0.321***	0.339***	0.397***	0.299***	<b>0.743</b>				
6. Firm performance	5.016	1.148	0.450***	0.433***	0.476***	0.423***	0.280***	<b>0.866</b>			
7. Technology turbulence	4.571	1.174	0.339***	0.386***	0.381***	0.354***	0.486***	0.330***	<b>0.762</b>		
8. Firm size	5.289	1.852	-0.145*	-0.158*	-0.136*	-0.141*	-0.012	-0.022	-0.033		
9. Firm age	2.464	0.762	-0.003	-0.041	-0.098	-0.040	0.003	-0.109	-0.112	0.417***	
10. Industry type	0.591	0.493	0.029	-0.057	-0.019	-0.055	0.030	-0.017	0.063	-0.119	-0.015

Note: \*\*\* indicates significance at the 0.001 level; \* indicates significance at the 0.05 level; square root of AVE is on the diagonal.

0.45 (Huo et al., 2014), and all CR composite reliability values were > 0.80 (Fornell & Larcker, 1981). Thus, adequate reliability was ensured for each scale.

We established content validity via the development of scales based on the extensive literature review, feedback received from researchers and executives, and the pilot test. In the CFA model, all factor loadings were higher than 0.50 demonstrating convergent validity (Chau, 1997). The average variance extracted (AVE) values were all above 0.50, providing further support for convergent validity (Fornell & Larcker, 1981).

To test discriminant validity, we compared the results between the constrained and unconstrained models. The results indicated good discriminant validity. We also compared the square root of AVE for each construct with the correlation between that construct and the other constructs. As shown in Table 3, the square root of AVE for each construct was higher than the correlation between that construct and the other constructs, which further suggests discriminant validity is good (Fornell & Larcker, 1981).

**4. Data analysis**

**4.1. Results**

Descriptive statistics of the hypothesized and controlled variables were presented in Table 3. Hierarchical multiple regression analyses and floodlight tests were employed to examine the main effects and moderating effects (Spiller, Fitzsimons, Lynch Jr., & McClelland, 2013). We mean centered all the constituted variables of the interaction terms to mitigate the threat of multicollinearity (Aiken & West, 1991). The maximum variance inflation factor in this study was 4.56, which is well lower than the cut-off point of 10 (Hair, Anderson, Tatham, & Black, 2006).

Table 4 shows the results of the hypotheses testing. Model 1 presents the regression results only including control variables as the explanatory variables. In Models 2–4, we entered CO, each dimension of ethical leadership and their interaction separately to test H1–H3. Model 4 examines the hypotheses regarding the two-way interactions simultaneously, and Model 5 reports the findings of hypotheses testing involving three-way interactions to test H5–H6.

Models 2–4 in Table 4 show that both humane leadership ( $\beta = 0.195, p < .01$ ) and moderation leadership ( $\beta = 0.186, p < .01$ ) have positively moderated the relationship between CO and firm performance, providing empirical support for H1 and H3. Model 3 further indicates that the relationship between CO and firm performance is not positively influenced by justice leadership ( $\beta = -0.082, p > .10$ ), hence H2 is not supported. The floodlight analyses results shown in Table 5 also provide support for H1 and H3.

The three-way interaction of CO, humane leadership and CI is described in Model 6. An insignificant interaction for humane leadership is found ( $\beta = 0.136, p > .10$ ), indicating the benefits of humane leadership for leveraging the firm's CO are not influenced by a competitive

environment. Thus, H4 is not supported. To further illustrate the three-way interactions, we plotted the interaction effects on firm performance for low and high levels of CO, ethical leadership moderators and CI (Aiken & West, 1991). We assessed the differences between the interactions of the CO and ethical leadership moderators in less versus intensely competitive environments. Afterwards, we compared the differences in the slopes between high and low degrees of ethical leadership moderators across less versus intensely competitive environments. The floodlight analyses results in Table 5 also suggest that H4 is not supported.

Fig. 2 presents the interactions of CO and humane leadership in high and low levels of competitive environment. First, in a relatively intensely competitive environment, high humane leadership has a positive interaction with CO while low humane leadership has a negative interaction with CO. The significant difference in the slopes (at the 0.05 level) demonstrates that humane leadership positively moderates the CO–firm performance relationship. Nevertheless, it is important to realize that the direct effect of humane leadership on firm performance increases the slope to enable firms with high humane leadership facing an intensely competitive environment are capable of realizing superior performance than firms with low humane leadership. We also find a positive interaction between CO and humane leadership in less competitive environments. However, the interaction of CO and humane leadership is insignificant, as demonstrated by the insignificant difference between the slopes ( $p > .10$ ). This may partially explain the insignificant moderating effect of humane on the CO–firm performance relationship. Third, there is a positive interaction between low humane leadership and CO in a less competitive environment while a negative interaction between low humane leadership and CO is found in an intensely competitive environment. The difference in the slopes is insignificant at the 0.10 level indicating that the impact of low humane leadership on the CO–firm performance relationship is not moderated by CI. Fourth, there is a positive interaction between CO and high humane leadership across environmental conditions. The difference in the slopes is significant at the 0.05 level. Thus, our findings provide evidence that CI does not significantly moderate the positive moderating effect of humane leadership.

The three-way interaction of CO, justice leadership and CI is further included in Model 4. A positive interaction for justice leadership is found ( $\beta = 0.170, p < .10$ ), signalling the benefits of justice leadership for leveraging the firm's CO in an intensely competitive environment. Hence, H5 is supported. Fig. 3 shows the interactions of CO and justice leadership in high and low levels of competitive environment. That is, the interaction between justice leadership and CO is positive in a highly competitive environment, signalling the positive impact of justice leadership on the CO–performance relationship. Nevertheless, the positive difference in the slopes is insignificant ( $p > .10$ ). Second, CO positively interacts with justice leadership in less competitive environments comparing with that in low CI. The findings of simple slope analysis provide further evidence since the difference between the two lines showing the effects of high and low levels of justice leadership on the

**Table 4**  
Regression results.

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Firm size	0.132 <sup>†</sup>	0.152*	0.121 <sup>†</sup>	0.145*	0.127 <sup>†</sup>	0.126 <sup>†</sup>
Firm age	-0.090	-0.150*	-0.122 <sup>†</sup>	-0.148*	-0.154*	-0.140*
Industry type	-0.035	0.008	-0.017	0.001	0.017	0.033
Technology turbulence	0.323***	0.193**	0.169*	0.178**	0.161*	0.139 <sup>†</sup>
Customer orientation		0.210**	0.279***	0.223**	0.159*	0.128 <sup>†</sup>
Humane leadership		0.399***			0.265***	0.305***
Justice leadership			0.152*		-0.030	-0.023
Moderation leadership				0.378***	0.245**	0.257***
Competitive intensity					0.059	0.093
Customer orientation × Humane leadership		0.195**			0.191*	0.180*
Customer orientation × Justice leadership			-0.082		-0.002	-0.081
Customer orientation × Moderation leadership				0.186**	0.175*	0.156 <sup>†</sup>
Customer orientation × Competitive intensity						0.059
Humane leadership × Competitive intensity						0.309***
Justice leadership × Competitive intensity						-0.038
Moderation leadership × Competitive intensity						-0.101
Customer orientation × Humane leadership × Competitive intensity						0.136
Customer orientation × Justice leadership × Competitive intensity						0.170 <sup>†</sup>
Customer orientation × Moderation leadership × Competitive intensity						-0.191**
R square	0.117	0.348	0.311	0.343	0.411	0.432
R square change		0.231***	0.194***	0.226***	0.294***	0.021*

Note: \*\*\* indicates significance at the 0.001 level; \*\* indicates significance at the 0.01 level; \* indicates significance at the 0.05 level; <sup>†</sup> indicates significance at the 0.10 level.

**Table 5**  
Partial results for the floodlight analyses.

Moderator	Level of moderator	Independent variable	Effect
Humane leadership	Mean - 1SD	Customer orientation	0.019
	Mean		0.267*
	Mean + 1SD		0.514***
Justice leadership	Mean - 1SD	Customer orientation	0.458***
	Mean		0.354***
	Mean + 1SD		0.250**
Moderation leadership	Mean - 1SD	Customer orientation	0.047
	Mean		0.283*
	Mean + 1SD		0.519***
Competitive intensity	Mean - 1SD	Customer orientation × Humane leadership	0.174*
	Mean		0.185*
	Mean + 1SD		0.217**
Competitive intensity	Mean - 1SD	Customer orientation × Justice leadership	-0.126
	Mean		-0.016
	Mean + 1SD		0.094
Competitive intensity	Mean - 1SD	Customer orientation × Moderation leadership	0.036
	Mean		0.145
	Mean + 1SD		0.253**

Note: \*\*\* indicates significance at the 0.001 level; \*\* indicates significance at the 0.01 level; \* indicates significance at the 0.05 level.

CO–firm performance relationship in less competitive environments is negatively significant ( $p < .05$ ). This may explain why justice leadership does not significantly moderate the relationship between CO and firm performance. The floodlight analyses results in Table 5 also support H5.

Third, although the interaction between CO and justice leadership is insignificant, the interaction between CO and high justice leadership has a positive effect on firm performance when comparing less and intensely competitive environments. The significant difference between the lines ( $p < .05$ ) provides strong evidence that high justice leadership positively influences the CO–firm performance relationship in intensely competitive environments while high justice leadership has negative impact on the CO–firm performance relationship in less competitive environments. Fourth, the impact of the interaction between CO and low justice leadership on firm performance is stronger when comparing less and intensely competitive environments ( $p < .10$ ). Thus, low justice leadership has a stronger positive effect on

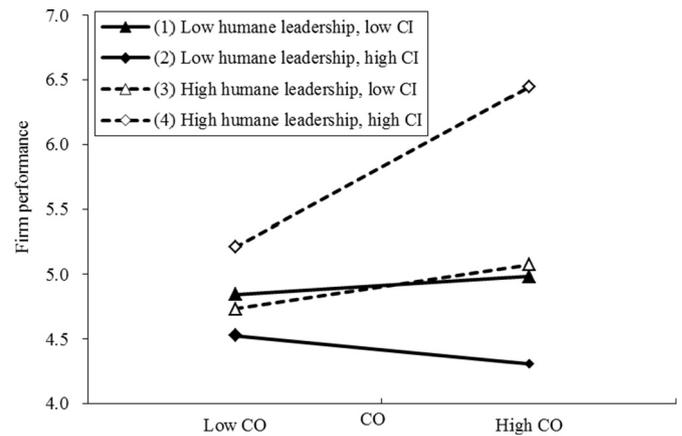


Fig. 2. Interaction plot of CO and humane leadership across environmental conditions.

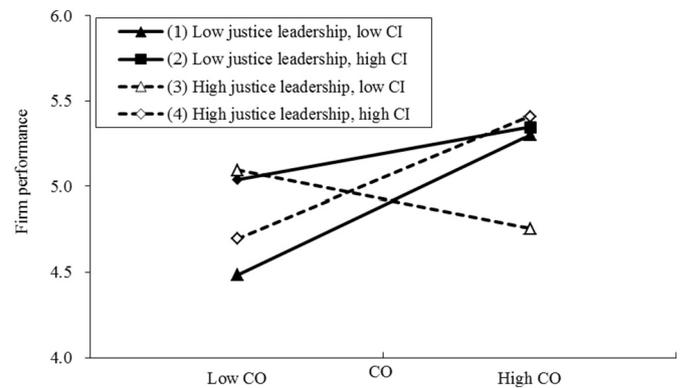


Fig. 3. Interaction plot of CO and justice leadership across environmental conditions.

the CO–firm performance relationship in less competitive environments than in intensely competitive environments. In sum, strong evidence was offered that justice leadership has a significant positive interaction with CO in intensely competitive environments, while this interaction is

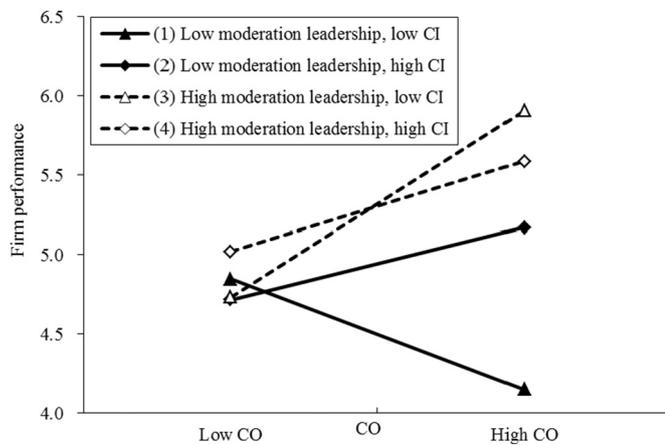


Fig. 4. Interaction plot of CO and moderation leadership across environmental conditions.

drastically decreased in less competitive environments.

In Model 4, there is a negative interaction for moderation leadership ( $\beta = -0.191, p < .01$ ), indicating that moderation leadership has drawbacks when leveraging the firm's CO in an intensely competitive environment. Therefore, H6 is supported. The results of floodlight analyses in Table 5 provide additional support for H6. Fig. 4 presents the interactions of CO and moderation leadership in high and low levels of competitive environment. First, in a relatively less competitive environment, high moderation leadership has a positive interaction with CO while low moderation leadership has a negative interaction with CO. The significant difference between the slopes ( $p < .001$ ) suggests the moderation leadership positively moderates the CO–firm performance relationship. Second, a positive interaction between CO and moderation leadership in intensely competitive environments is found. However, the interaction of CO and moderation leadership is insignificant indicated by the small difference between the slopes ( $p > .10$ ). Third, low moderation leadership is positively interacted with CO in an intensely competitive environment while there is a negative interaction between low moderation leadership and CO in less competitive environments. The significant difference between the slopes ( $p < .05$ ) indicates that the impact of low moderation leadership on the CO–firm performance relationship is positively moderated by CI. Fourth, there is a negative interaction between CO and high moderation leadership across environmental conditions. However, the difference in two slopes is insignificant ( $p > .10$ ). Thus, the positive moderating effect of moderation leadership is negatively moderated by CI.

#### 4.2. Robustness check

This study conducted a robustness check to cross-validate our findings. Research hypotheses indicate that the CO–firm performance relationship is positively moderated by humane leadership, justice leadership and moderation leadership. To validate our findings, we split the sample into high and low groups based on the median of scores of humane leadership, justice leadership or moderation leadership. We then conducted regression analysis for the each group respectively. The regression coefficients of CO were compared between two groups. The results are consistent with our previous findings.

## 5. Discussions

In this study, we explore the internal and external conditions enabling firms to profit from CO based on social learning theory and the interactive perspective. Our findings suggest that both humane leadership and moderation leadership help firms to better leverage CO for improving performance. The moderating effects of the interaction

between ethical leadership and CI reveal that the absence of moderation leadership may be particularly harmful for firms operating in a less competitive environment while the moderating effect of humane leadership on the relationship between CO and firm performance is not influenced by competitive intensity. Moreover, justice leadership has a positive impact for firms operating in a more competitive environment, which assists firms to better realize the benefits of CO.

#### 5.1. Theoretical contributions

The primary contribution of this study is the incorporation of CO and ethical leadership into an integrated framework. Most previous literature investigated CO and ethical leadership independently, which resulted in an incomplete understanding of them. Our results reveal that the realization of the value of CO is supported by the ethical leadership. It implies the important benefits of ethical climate in profiting from CO. Seen through the lens of ethical leadership, CO may be reconceptualised to include ethical elements as its essence in order to offer a comprehensive understanding of CO. This reconceptualization is conceptually consistent with some CO literature (e.g., Valenzuela et al., 2010), in that customers also place high value onto the ethical elements when making purchasing decisions.

Furthermore, this study reveals that the complicated and subtle interrelation between ethical leadership, CO, and firm performance is only fully recognized by considering CI as an important factor. Our research contributes to existing studies by theorizing the fit of strategic orientation with ethical leadership and CI (Augusto & Coelho, 2009; Feng et al., 2012). Although the beneficial and potential harmful impacts of CO have been extensively studied, previous results have remained inconsistent (Zhu & Nakata, 2007). This research suggests that the contradictory findings may be attributed to the neglect of contingency factors, such as ethical leadership and CI. Thus, this study extends previous literature by exploring the effects of contextual conditions on the CO–firm performance relationship. Combining different contingency factors, when investigating conditional factors influencing the relationship between CO and firm performance, this study illustrates more nuanced findings.

Moreover, this study highlights the importance of differentiating the multi-dimensions of ethical leadership in terms of their roles in the CO–performance relationship. The results show that the impact of CO on firm performance is affected by humane leadership and moderation leadership, but not by justice leadership. In other way, the study responds to the call to undertake more research on the relationship between ethical leadership and firm performance (Kempster, Jackson, & Conroy, 2011).

Specifically, we find the relationship between CO and firm performance is positively moderated by humane leadership. The results of this study also contribute to our understanding of why and how humane leadership enables CO to improve firm performance. Although humane leadership has a positive impact on the profit potential of CO, this study reveals that this impact is not influenced by a competitive environment. The interaction between CO and humane leadership is not significant in a less competitive environment and provides strong evidence that the highest performance gained from CO is realized when humane leadership is high in intensely competitive environments. This is consistent with the existing findings that a competitive environment requires firms to provide humane treatment and personalized care to their employees, and increase the potential of profiting from CO (Yim et al., 2008).

Furthermore, this study indicates that moderation leadership positively influences the CO–firm performance relationship. Through relieving employees from evaluation apprehension and stimulating their creativity, moderation leadership helps a firm capture the potential value of CO (Owens & Hekman, 2012). This study provides potential explanations for the inconsistent findings regarding the CO–firm performance relationship. As expected, the positive moderating effect of moderation leadership on the relationship between CO and firm

performance is negatively influenced by CI. Our findings show no significant interaction between CO and moderation leadership in an intensely competitive environment and provide weak evidence that low moderation leadership brings the highest performance benefits of CO in an intensely competitive environment comparing with less competitive environment. Thus, moderation leadership may be less beneficial in capturing the value of CO in an intensely competitive environment.

In contrast, justice leadership is found not to influence the link between CO and firm performance. Despite the fact that justice leadership has been argued to help employees develop goal-directed behavior aimed at meeting customer demands (Homburg et al., 2011), it is not able to enhance the profitability of CO. A possible explanation for the insignificant moderating effect of justice leadership may be that the advantages gained from justice leadership only prove indispensable in certain conditions where the behaviors of employees are transformed into customer satisfaction (Feng et al., 2014). Interestingly, although justice leadership does not moderate the relationship between CO and firm performance, this effect is found to be positively influenced by CI. That is, the interaction between CO and justice leadership is not significant in intensely competitive environments and offers strong evidence that high justice leadership brings the highest performance benefits of CO in intensely competitive environments when compared with less competitive environments. These findings partly emphasize the results in prior research relating to justice leadership. Although most previous research advocates the positive influence of justice leadership on performance (Colquitt, LePine, Piccolo, Zapata, & Rich, 2012), our findings suggest that justice leadership may only enhance the CO-firm performance relationship when operating in an intensely competitive environment.

### 5.2. Managerial implications

Our findings provide several managerial guidelines for practitioners. First, the exercise of humane leadership should not be neglected when examining the values of CO. Humane leaders will strengthen the ability of a firm to profit from CO. Managers should also be advised that the influence of humane leadership on the CO-firm performance relationship still depends upon environmental conditions. CO enjoys the highest impact on firm performance under high humane leadership and high CI. What is noteworthy is that a low level of humane leadership is detrimental to leverage CO for a firm operating in intensely competitive environments.

Second, although justice leadership does not influence the CO-firm performance relationship significantly, its impact should be paid attention to when market competition becomes intense. Leaders in a firm facing strong competition should treat their employees fairly to capture the value of CO. However, keeping a low level of justice leadership may make sense for a firm facing less competition. In other configurations of justice leadership and CI, it is difficult for a firm to improve performance through CO because the relationship between CO and firm performance is marginal or negative. In such scenarios, firms may delay or cut some of their investments in initiatives regarding CO.

Third, when implementing CO, leaders with moderation leadership are needed to foster improved performance. This is especially important when the market competition for a firm is intense. High level of moderation leadership is more conducive to leverage CO for a firm operating in a less competitive environment compared with an intensely competitive environment. However, for a firm operating in an intensely competitive environment, the role of moderation is rather weak. All in all, it is better for managers to adjust their firms' levels of CO and ethical leadership to match with the contextual conditions in order to improve performance.

### 5.3. Research limitations

This study has several limitations which provide further research

opportunities. First, although this study is conducted using a time-lagged sample measuring the independent and dependent variables in two waves, it may be more interesting to investigate the moderating effects of ethical leadership over a longer period. This exploration would enable us to evaluate whether temporal changes in humane leadership, justice leadership, moderation leadership, and CI will affect the CO-firm performance relationship.

Second, other contingency factors, such as senior team attributes, environmental dynamism and market uncertainty may also influence the relationship between CO and firm performance. Thus, future studies could investigate whether, and how, configurations of these contingency factors affect the CO-firm performance relationship to generate additional insights. Future research also should investigate why and how other factors, such as product quality and customer satisfaction may serve as internal processes to intervene in the CO-firm performance relationship. More interesting findings can be obtained by extending the relationships under investigation.

Third, this research draws on findings based solely on a sample of Chinese firms. Although China has shared features with other emerging countries, such as market environments, economic development and customer demand, it also has distinct institutional factors (Feng & Wang, 2013) and different leadership practices, in particular, Confucianism (Zhang, Everett, Elkin, & Cone, 2012). Furthermore, the roles of ethical leadership (Wang, Chiang, Chou, & Cheng, 2017) and environmental factors in affecting the relationship between CO and firm performance are likely to be distinct among different emerging economies. Thus, the generalizability of our results may be limited. Further research should validate the relationships in other cultural settings.

Finally, several previous studies have distinguished market performance from financial performance (e.g., Ritala, 2012). Although market performance is positively related to financial performance (Gentry & Shen, 2010), CO may affect these two types of performance in different ways. Therefore, future studies should investigate the different impacts of CO on various types of performance as well as the roles of ethical leadership and CI in such effects.

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### Appendix A. List of scale items

#### *Customer orientation* (Narver & Slater, 1990)

- CO1: Our business objectives are driven primarily by customer satisfaction
- CO2: Our strategy for competitive advantage is based on our understanding of customers' needs
- CO3: We measure customer satisfaction systematically and frequently
- CO4: We give close attention to after-sales service
- CO5: We often look for measurements to increase customer value or decrease product cost
- CO6: We give close attention to the evaluation of customer on our product

#### *Humane leadership* (Eisenbeiss (2012; Kalshoven et al., 2011)

- HL1: Treat employees with dignity and respect
- HL2: Is caring and pays attention to employees' personal needs
- HL3: Takes time to talk about work-related emotions with employees

HL4: Is not genuinely concerned about employees' personal development

HL5: Sympathizes with employees when they have problems

*Justice leadership* (Kalshoven et al., 2011)

JL1: Treat others in a way that is right and equal

JL2: Distributes work to employees fairly

JL3: Holds employees responsible for things that are not their fault

JL4: Never pursues his/her own success at the expense of others

JL5: Make just decisions

*Moderation leadership* (Eisenbeiss (2012)

ML1: The leader has modest attitude

ML2: Giving others the possibility to shine

ML3: Do not encourage extreme objectives, ideas, and behaviors

ML4: Accept diversity and differences

*Competitive intensity* (Jaworski & Kohli, 1993)

CI1: Competition in our market is cut-throat

CI2: There are many "promotion wars" in our market

CI3: Anything that one competitor can offer in our market, others can match readily

CI4: Price competition is a hallmark of our market

CI5: One hears of a new competitive move in our market frequently

*Firm performance* (Li & Zhang, 2007)

FP1: Sales growth

FP2: Profit growth

FP3: Return on assets

FP4: Return on investment

FP5: Market share growth

FP6: Overall efficiency of operations

FP7: Return on sales

*Technology turbulence* (Jaworski & Kohli, 1993).

TT1: Our industry is characterized by rapidly changing technology

TT2: It is very difficult to forecast the technology development direction in our industry

TT3: Most technological developments in our industry are radical changes on existing techniques

TT4: The technological changes in our industry can bring many opportunities for firms

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