Asia Pac J Manag (2016) 33:695–722
DOI 10.1007/s10490-015-9448-6

Tian-ren-he-yi strategy: An Eastern perspective

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Published online: 12 December 2015

Abstract Research on the business-environment dilemma has traditionally focused on strategies based on isolated, either/or mindsets, such as economically-oriented and environmentally-oriented strategies. Drawing on the cultural, philosophical, and intellectual traditions of China, we sketch the contours of a new holism-based strategic mindset, which results in a *tian-ren-he-yi* strategy. As an Eastern perspective, *tian-ren-he-yi* means "nature and mankind combined as one" or "nature-human harmony." We leverage both qualitative and quantitative investigations to first identify the underlying mechanisms connecting *tian-ren-he-yi* strategy and firm performance, and then to compare the performance-enhancing potential of *tian-ren-he-yi* strategy with the two strategies based on the isolated mindset. Our analysis shows that when managing the business-environment dilemma, *tian-ren-he-yi* strategy has stronger performance-enhancing potential than either economically-oriented or environmentally-oriented strategies.

Keywords Business-environment dilemma · Holism · *Tian-ren-he-yi* strategy · Mixed-methods methodology

In the 21st century, one of the most important and most unsettling management dilemmas around the world is the dilemma between economic return and environmental performance—in short, the business-environment dilemma (Bai & Chang, 2015; Ralston et al., 2015; Xu, Yang, Quan, & Lu, 2015). This dilemma exists because of

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firms' pursuit of two primary strategies that appear to be polarized. First, an economically-oriented strategy sets economic performance as firms' primary goal (Jaffe, Peterson, Portney, & Stavins, 1995; Palmer, Oates, & Portney, 1995; Walley & Whitehead, 1994). Second, an environmentally-oriented strategy pursues environmental performance as an important priority (Berchicci, Dowell, & King, 2012; Chan, 2005; Hart, 1995; Matten & Moon, 2008; McWilliams & Siegel, 2001). Obviously, both economic performance and environmental performance are important.[1] The dilemma is: How do firms strategically reconcile these different performance dimensions?

It is difficult to simultaneously achieve both better economic performance and better environmental performance by merely pursuing a single strategy—either economically-oriented or environmentally-oriented (Lothe, Myrtveit, & Trapani, 1999). Some scholars have been advocating a combined strategy in order to improve both economic and environmental performance (Lothe et al., 1999; Porter & Kramer, 2011; Shrivastava, 1995). In essence, previous research has introduced two polarized strategies and one combined strategy.

Recently, rising global competition demands firms to be more economically competitive. Meanwhile, the natural environment seems to deteriorate in many parts of the world, demanding more attention from firms. Even worse, the more firms begin to embrace some environmental responsibility, the more they seem to be blamed for environmental problems (Porter & Kramer, 2011). Why would this be the case? Is there a way out? Current solutions tend to turn to the mindset of previous strategies in solving the business-environment dilemma for answer (Porter & Kramer, 2011). Researchers have identified two mindsets derived from Western philosophy that can deal with dilemmas: (1) an either/or mindset and (2) a both/and mindset (Chen & Miller, 2010; Lewis, 2000; Poole & Van de Ven, 1989; Smith & Lewis, 2011). We argue that (1) both economically-oriented and environmentally-oriented strategies are consistent with the either/or mindset, and (2) the combined strategy is consistent with the both/and mindset. Although widely used, these strategies have met a great deal of challenge. Noticing the limitations of current strategic mindsets, some researchers have called for the emergence of a new strategic mindset on how to manage the business-environment dilemma (Porter & Kramer, 2011; Sharma & Vredenburg, 1998). But the contours of this new strategic mindset remain to be sketched.

Responding to the calls for a new strategic mindset, we draw on the cultural, philosophical, and intellectual traditions of China to sketch the contours of a new holism-based strategic mindset—in short, a holism mindset. Researchers have long recognized that from an Eastern perspective, the holism mindset is preferable to handle complex dilemmas than isolated mindsets (Chen, 2002; Fang, 2010; Li, 2012, 2014,

[1] There is a debate on whether the business-environment dilemma should be the primary responsibility of firms. One side of the debate argues that since the environmental issue is a public good, protecting the environment should be the primary job of governments (Friedman, 1970). However, the other side of the debate argues that firms should shoulder more responsibilities. This is because "in recent years, business increasingly has been viewed as a major cause of social, environmental, and economic problems, and companies are widely perceived to be prospering at the expense of the broader community. Moreover, business will often be far more effective than governments and nonprofits are at marketing that motivates customers to embrace products and services that create societal benefits" (Porter & Kramer, 2011: 4). While joining this debate is beyond the scope of our study, it is useful to disclose that we—as well as many executives that we interviewed—share the second view in the debate.

2016; Lin, Lu, Li, & Liu, 2015; Nisbett & Masuda, 2003; Nisbett, Peng, Choi, & Norenzayan, 2001; Peng & Nisbett, 1999). Unfortunately, to the best of our knowledge, no previous study has identified a particular strategy based upon the holism mindset to confront the business-environment dilemma.

We focus on a particularly influential holism school of thought—*tian-ren-he-yi* (天人合一), which means "nature and mankind combined as one" or "nature-human harmony."[2] In the domain of managing business-environment dilemma, we label the strategy that is influenced by such holism school of thought as "*tian-ren-he-yi* strategy." Specifically, *tian-ren-he-yi* strategy can be defined as a strategy that pursues both economic performance and environmental performance simultaneously by holistically balancing economically-orientated and environmentally-orientated initiatives and seeking to derive synergy from these endeavors. The main differences between *tian-ren-he-yi* strategy and combined strategy are that combined strategy merely emphasizes the interaction between economic and environmental strategy, while *tian-ren-he-yi* strategy simultaneously emphasizes balance and synergy. We address two important but unexplored questions: (1) How does *tian-ren-he-yi* strategy differ from existing strategies? (2) Does *tian-ren-he-yi* strategy have stronger performance-enhancing potential in engaging the business-environment dilemma than existing strategies?

Overall, we aspire to make three contributions. First, we respond to the calls for invoking Eastern traditions to create a richer and more robust field of management (Leung, 2012; Li, 2012, 2014, 2016; Li, Leung, Chen, & Luo, 2012; Tsui, 2007). Second, we leverage both *qualitative* and *quantitative* investigations to clarify the contours of *tian-ren-he-yi* strategy. This improves upon previous research on holism that for thousands of years has relied on coarse-grained verbal arguments. Third, we empirically unpack the black box associated with the performance-enhancing potential of *tian-ren-he-yi* strategy.

Theoretical background: The three strategic mindsets

Strategies based on the either/or mindset

The either/or mindset suggests that firms either prioritize economic performance (and pay relatively little attention to environmental performance) or pay significant attention to environmental performance (in addition to economic performance). We characterize strategy that puts acquiring economic performance as the only priority as an *economically-oriented strategy* (Walley & Whitehead, 1994), and strategy that puts acquiring environmental performance very high on the priority list as an *environmentally-oriented strategy* (Hart, 1995).

Scholars advocating an economically-oriented strategy argue that firms need to attain a high level of economic performance first, and then they can use the rewards of their economic success to protect the environment (Jaffe et al., 1995; Palmer et al., 1995). In other words, there is "no free environmental lunch" (Walley & Whitehead, 1994). To be blunt, firms have to pollute the environment first before being able to have

[2] Li (2016) suggested that *tian-ren-he-yi* can be translated as "heaven-nature integration."

enough resources to fix the environmental problem. This view has been criticized for its one-sided emphasis and thus its lack of balance (Aragón-Correa & Sharma, 2003).

Alarmed by the deteriorating environmental conditions, scholars who are influenced by the natural resource-based view (NRBV) and the necessity of engaging in corporate social responsibility (CSR) argue that firms need to embrace an environmentally-oriented strategy (Chan, 2005; Matten & Moon, 2008; McWilliams & Siegel, 2001; Waddock & Graves, 1997; Walls, Berrone, & Phan, 2012). This strategy pays more attention to environmental protection than to exclusively focusing on (relatively short-term) economic performance (Su, Peng, Tan, & Cheung, 2016).

Mathematically, let X_1 be the set of firms' resources and capabilities used in an economically-oriented strategy, and X_2 the set of firms' resources and capabilities used in an environmentally-oriented strategy. Let Y_1 be the economically-oriented strategy, and Y_2 the environmentally-oriented strategy. As illustrated in Fig. 1, we suggest:

$$Y_1 = f(X_1) \tag{1}$$

$$Y_2 = g(X_2) \tag{2}$$

In summary, the literature has pointed out the two polarized strategies. In reality, these two strategies may have some overlap and are not so "black and white." However, we argue that economically-oriented and environmentally-oriented strategies can be viewed as strategy *archetypes*. This is similar in spirit to Porter (1985) who identified cost leadership and differentiation as two polarized strategy archetypes—despite some overlap between them. The value of such characterization is to help us see the value-added brought by more integrative strategies—as discussed next.

Strategy based on the both/and mindset

Different from the two strategies derived from the either/or mindset, a combined strategy is influenced by the both/and mindset. It pays attention to both economic performance and environmental performance. A combined strategy mixes economically-oriented and environmentally-oriented elements because both

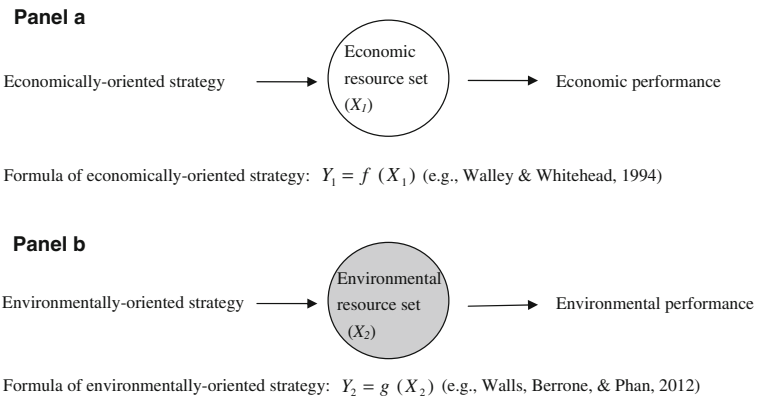


Fig. 1 Strategies based on the either/or mindset

performance indicators are equally important to firms' growth and development (Lothe et al., 1999; Shrivastava, 1995). For instance, Shrivastava (1995) advised that firms mix an economically-oriented strategy (in areas such as total quality and technology transfer) with an environmentally-oriented strategy (in areas such as ecological sustainability and population impact control). The difference between an environmentally-oriented strategy and a combined strategy is that firms undertaking an environmentally-oriented strategy believe that all kinds of environmental initiatives would generate high levels of both environmental and economic performance. In comparison, firms embracing a combined strategy argue that only by combining with an economically-oriented strategy would an environmentally-oriented strategy result in high performance along both dimensions (Porter & Kramer, 2011).

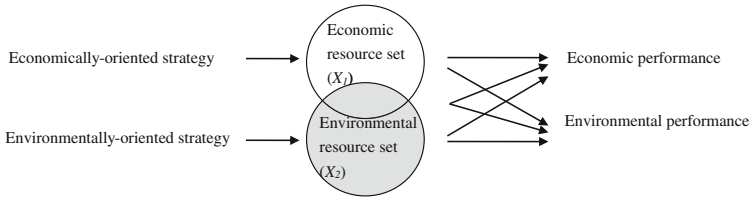
Following the notations established in Formulas (1) and (2), combined strategy Y_3, which pays attention to both performance indicators, can be illustrated in Fig. 2 and expressed as:

$$Y_3 = f(X_1) + g(X_2) \tag{3}$$

Firms pursuing a combined strategy are interested in exploring the underlying mechanisms that connect environmental initiatives with economic performance (such as differentiation advantage) (Porter & Kramer, 2011). However, merely combining these two strategies in an isolated and independent way may not necessarily lead to higher economic and environmental performance. In fact, the empirical literature on the economic impact of CSR-related strategies shows mixed results. Some studies report a *positive* relationship (Lev, Petrovits, & Radhakrishnan, 2010; Wang & Qian, 2011), while others find a *negative* relationship (Ambec & Lanoie, 2008) or *no* relationship (Brammer & Millington, 2008; Surroca, Tribo, & Waddock, 2010). Viewed together, "CSR does not hurt [economic] performance, but there is no concrete support to believe that it leads to supernormal [economic] returns" (Devinney, 2009: 53). As a result, researchers have called for a new strategic mindset that would take into account the *interactive* effect between the two polarized strategies (Porter & Kramer, 2011).

Tian-ren-he-yi strategy based on the holism mindset

Lewis (2000) recognized that the either/or thinking pattern grounded in the Western philosophy of Aristotle and Newton would have a hard time comprehending the intricacies of contradictions, but a holistic and interrelated view would. However, Lewis



Formula of combined strategy: $Y_3 = f(X_1) + g(X_2)$ (e.g., Porter& Kramer, 2006, 2011; Shrivastava,1995)

Fig. 2 Combined strategy based on the both/and mindset

(2000) fell short of articulating the contours of such a view. Influenced by Eastern traditions based upon Chinese *yin-yang* thinking, several researchers have argued against the Western mindset regarding management dilemmas (Li, 2012, 2014, 2016; Lin et al., 2015).

Drawing from the cultural, philosophical, and intellectual traditions of China, the holism school of thought claims that, compared with isolated mindsets, a holism mindset may be more preferable for negotiating complex social interactions (Chen, 2002; Lewis, 2000; Li, 2014; Nisbett & Masuda, 2003; Nisbett et al., 2001). Confronting a dilemma, the holism school of thought suggests:

- The principle of *holism*, which means that nothing is isolated and independent and the whole is more than the sum of parts (Peng & Nisbett, 1999; Spencer-Rodgers, Williams, & Peng, 2010).
- The principle of *contradiction*, which means that the two sides of dilemma are mutually influencing, interdependent, and complementary (Fang, 2010; Peng & Nisbett, 1999; Peng, Spencer-Rodgers, & Nian, 2006).
- The principle of *balance*, which avoids simple polarizing of contradictions (Chen, 2002; Chen & Miller, 2010; Li, 2012, 2014, 2016; Lin et al., 2015).

While the holism school of thought is much broader than the scope of this article, we draw on a specific concept of *tian-ren-he-yi*, which is one of the most notable Chinese holism perspectives to address the dilemma between nature and mankind (Ji, 1993). Translated literally, *tian-ren-he-yi* means nature (*tian*) and mankind (*ren*) combined (*he*) as one (*yi*)—or heaven-human integration (Li, 2016). It suggests that like *yin* and *yang*, nature and mankind are an organic whole (Coward, 1996; Fang, 2010; Goodman, 1980; Jensen, 1987; Hou, 1997; Lin, 2009; Miles, 1992; Sylvan & Bennett, 1988).

In line with the holism school of thought, the *tian-ren-he-yi* perspective has two basic attributes to address dilemmas. First, this perspective avoids the polarization of dangerous extremes, such as "too little emphasis on human needs" or "too much emphasis on the environment." This is because both sides have a great deal of merits. Second, this perspective suggests that conflicting factors can produce synergy, which can help firms pursue two different objectives. Therefore, the ultimate goal of *tian-ren-he-yi* is reaching harmony between nature and mankind by acknowledging the balance and the synergy (complementarity) between the two from a holism view (Ji, 1993).

Our interest in *tian-ren-he-yi* is fueled by three bodies of interdisciplinary literature that span several thousand years. First, it draws from classical Chinese works on holism, such as *Tao Te Ching* written by Lao Tzu (571–471 BC) and *The Analects* authored by Confucius (551–479 BC). Chuang Tzu (369–286 BC), another ancient Chinese thinker and author of the book *Chuang Tzu*, further developed the holism school of thought several hundred years after the passing of Lao Tzu and Confucius (Chen & Chen, 2004; Lin, 2009). Second, we draw from recent work in cross-cultural psychology that has empirically documented that Eastern thought is relatively more holistic, whereas Western thought is relatively more analytical (or sharper focused) (Nisbett et al., 2001; Peng & Nisbett, 1999). Third, we are influenced by the recent Chinese debate on the most sustainable way to develop the economy (Shan, 2005; Tsui & Jia, 2013). While holism may be Chinese in origin, clearly not every Chinese firm has been practicing a more balanced, *tian-ren-he-yi* strategy. Many Chinese firms have embraced an economically-oriented strategy. In their pursuit for economic

performance, they end up significantly polluting the environment and undermining the future odds for sustainable development. Alarmed, some Chinese scholars have called for a return to the classical roots (such as *tian-ren-he-yi* as advocated by Lao Tzu, Confucius, and Chuang Tzu) as a guiding principle for economic development and strategy formulation (Ding & Mai, 2003; Shan, 2005).[3]

The recent Chinese debate coincides with the recent Western debate on how to best simultaneously satisfy the demands for economic and environmental goals (Hart, 1995; Porter & Kramer, 2011). The challenge for us is how to leverage the interdisciplinary insights to inform incisive theory development by developing testable hypotheses and specific constructs that can propel empirical work (Li et al., 2012: 11). Next, we take up this challenge.

Tian-ren-he-yi strategy versus other strategies

Shown in Fig. 3, *tian-ren-he-yi* strategy features integration, connection, and complementarity (Ji, 1993). Mathematically, this strategy Y_4 can be expressed as:

$$Y_4 = h(X_1, X_2) \tag{4}$$

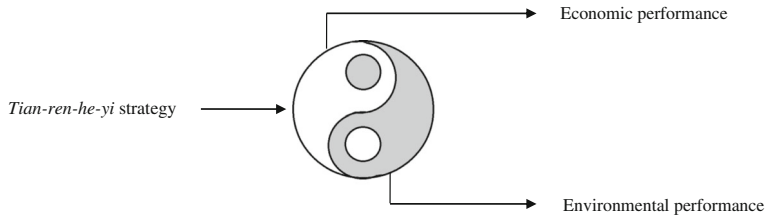
Economically-oriented and environmentally-oriented strategies are the two baseline strategies from which *tian-ren-he-yi* strategy deviates. Therefore, we develop hypotheses to focus on the relationship between these three types of strategies and their performance.

Economically-oriented strategy and two types of performance

Firms embracing an economically-oriented strategy exert great efforts to pursue valuable and non-substitutable economic resources in order to sustain competitive advantages over rivals (Barney, Wright, & Ketchen, 2001). However, not all economically-oriented initiatives can accomplish outstanding environmental performance at the same time (Lothe et al., 1999). Given that the ultimate purpose of economically-oriented strategy is to enhance economic performance, whether or not economically-oriented strategy can attain a high level of environmental performance is not likely to be under serious consideration by managers.

For instance, when confronting the business-environment dilemma, Walley and Whitehead (1994) propose that firms use a cost-benefit approach when making decisions to "lead" or "lag" behind environmental regulations. Because "lead" initiatives (doing more than what is required by regulations) increase near-term cost, "lag" initiatives (not exceeding what is required by regulations) seem more preferable. However, although "lag" initiatives (such as end-of-pipe pollution reduction) can create superior short-term economic performance, it is hard to believe that "lag" initiatives would simultaneously lead to positive environmental performance (Sharma & Vredenburg, 1998). In addition, organizational culture can be viewed as firm resources (Barney et al., 2001). If firms' culture emphasizes

[3] Such a voice represents a minority in Chinese academia. In the Chinese academia at large, there is "a dramatic dominance" of economically-oriented studies relatively to human welfare-oriented studies, as documented by Tsui and Jia (2013: 1) using articles published in three leading Chinese-language journals in management.



Formula of *tian renheyi* strategy: $Y_4 = h(X_1, X_2)$

Fig. 3 *Tian-ren-he-yi* strategy. NOTE: In order to depict how *tian-ren-he-yi* strategy can be used to engage the business-environment dilemma, we use *yin-yang*, which is one of the best-known symbols in East Asia (Cooper, 1990). The *tian-ren-he-yi*-based holism mindset is a special application of the *yin-yang* perspective. The *yin-yang* perspective holds three propositions to treat the contradiction between *yin* and *yang*: (1) *Yin* and *yang* are in a paradoxical unity. (2) *Yin* and *yang* complement and reinforce each other. (3) *Yin* and *yang* are in balance (Chen, 2002; Li, 2012, 2014, 2016; Fang, 2010). The aforementioned three attributes of the *yin-yang* symbol are consistent with the *tian-ren-he-yi* mindset, from which *tian* (nature) is *yin* and *ren* (mankind) is *yang*, and *he yi* means *tian* and *ren* are combined as one

economic performance, a clear message that environmental performance is not important is sent to employees. Then employees are likely to engage in initiatives focusing on economic performance, and pay insufficient attention to environmental impacts. Thus:

Hypothesis 1a A focus on economically-oriented strategy is positively related with economic performance.

Hypothesis 1b A focus on economically-oriented strategy is not significantly related with environmental performance.

Environmentally-oriented strategy and two types of performance

A number of studies associated with the NRBV (Hart, 1995) document that a focus on environmentally-oriented strategy is positively related with environmental performance (Chan, 2005). However, because economic performance and environmental performance need relatively distinct efforts, for two reasons not all environmentally-oriented efforts would result in enhanced economic performance (Henri & Journeault, 2010; Lothe et al., 1999; Menguc & Ozanne, 2005). On the one hand, an environmentally-oriented strategy, such as one centered on picking "low hanging fruit," may enhance environmental performance but not economic performance. This is because such initiatives are "easy"—or more specifically, easy to imitate by rivals (Barney et al., 2001). On the other hand, implementing environmentally-oriented strategy may add to the financial burden of the firm—at least in the short run (Kleiner, 1991; Palmer et al., 1995). In sum:

Hypothesis 2a A focus on environmentally-oriented strategy is positively related with environmental performance.

Hypothesis 2b A focus on environmentally-oriented strategy is not significantly related with economic performance.

Tian-ren-he-yi strategy and two types of performance

Distinct from the either/or mindset, *tian-ren-he-yi* strategy proposes that *both* economically-oriented and environmentally-oriented resources and capabilities are needed to attain high levels of economic performance and environmental performance. Therefore, striking a balance between economically-oriented and environmentally-oriented initiatives rather than polarizing any one set of them would increase the possibility to simultaneously achieve high levels of both economic and environmental performance (Lothe et al., 1999; Porter & Kramer, 2011; Shrivastava, 1995).

Second, different from the combined strategy anchored in the both/and mindset (which mixes the economically-oriented and environmentally-oriented strategies in a relatively isolated and independent way [Lothe et al., 1999; Shrivastava, 1995]), *tian-ren-he-yi* strategy proposes that efforts along these two dimensions are neither totally independent nor isolated, but are complementary and synergistic with each other in an organic whole. For example, strengthening firms' environmental orientation (such as cleaning and beautifying their workshops and factories) would enhance employees' enthusiasm for work, which would improve product quality. Also, when firms pay more attention to cut cost, one of the first things they would do is to increase energy and resource efficiency and to cut emission. As a result, their environmental performance would be improved. The more economic success firms accomplish, the more financial means and potential they may have to improve environmental performance. Consequently, higher levels of both economically-oriented and environmentally-oriented strategies would strengthen *both* the performance-enhancing potential of economic resources fueling a high level of economic performance and the performance-enhancing potential of environmental resources driving a high level of environmental performance.

There are at least two different ways of undertaking a combined strategy, and *tian-ren-he-yi* strategy differs from both of them. The first type of combined strategy (as advocated by Shrivastava, 1995) treats economically-oriented and environmentally-oriented strategies in a relatively isolated way, while firms pursuing *tian-ren-he-yi* holism would view these two strategies as a whole. The second type of combined strategy (as spearheaded by Porter & Kramer, 2011) focuses on the overlap (synergy) between economically-oriented and environmentally-oriented strategies. Believing that business goal and social welfare are not isolated but complementary, Porter and Kramer (2011) argued that finding the appropriate interaction between business opportunity and stakeholders' environmental demand would not only benefit firms financially, but also benefit the environment as well as other stakeholders. However, the second type of combined strategy pays relatively little attention on the balance between economically-oriented and environmentally-oriented strategies. In comparison, firms pursuing a *tian-ren-he-yi* strategy focus on both the *balance* and the *synergy* between economic pursuits and environmental initiatives. Such experience in implementing *tian-ren-he-yi* strategy is valuable, tacit (causally ambiguous), rare, and dynamic (Barney et al., 2001). Thus, we argue that *tian-ren-he-yi* holism strategy is likely to be positively associated with both higher economic performance and higher environmental performance.

In order to compare *tian-ren-he-yi* strategy's overall performance-enhancing potential of engaging the business-environment dilemma with isolated strategies, we suggest that a

strategy that is positively related with *both* economic performance and environmental performance has a high level of *overall* performance-enhancing potential. Conversely, a strategy that is positively related with only one of the two performance dimensions has a low level of overall performance-enhancing potential. Finally, a strategy that is positively related with neither of economic nor environmental performance does not have a great deal of overall performance-enhancing potential. Specifically, we hypothesize:

Hypothesis 3a A focus on *tian-ren-he-yi* strategy is positively related with economic performance.

Hypothesis 3b A focus on *tian-ren-he-yi* strategy is positively related with environmental performance.

A mixed-methods methodology

Given the substantial newness of the *tian-ren-he-yi* strategy as a construct introduced to the literature, we argue that a mixed-methods approach is the most optimal methodology to proceed. A qualitative approach is ideal to initiate a new line of inquiry. Due to the paucity of previous research, *tian-ren-he-yi* strategy represents such a setting that warrants the use of field-based qualitative methods. These methods enable scholars to connect with the details of sampled organizations, interact with informants, and make better sense of the relationship (Bansal & Corley, 2011; Kreiner, Hollensbe, & Sheep, 2009). Thus, qualitative findings are often rich, deep, and insightful.

However, qualitative studies, despite the rigor scholars introduce into the research design, tend to be "an *interpretive* enterprise" (Emerson, 1983: vii, original italics) using a relatively small sample. To enhance generalizability, scholars often use quantitative methods by leveraging a sample substantially larger than the sample typically used in qualitative studies. Given the different pros and cons, a combination of both methods is likely to yield a clearer and better understanding than that would be permitted by either method (Bingham & Davis, 2012; Chen, Yao, & Kotha, 2009; Vergne, 2012).

We first used field interviews to engage managers to help us identify the contours of *tian-ren-he-yi* strategy in a qualitative way. Then using the insights from qualitative findings, we developed a survey instrument to enable hypothesis testing in a quantitative way. Overall, we followed the small number of precedents of using a mixed-methods methodology in the literature (Chen et al., 2009; Vergne, 2012), thus answering recent calls for mixed-methods designs (Bansal & Corley, 2011).

Qualitative findings

Given our aim to build and elaborate theory, we searched for a context that could serve as an "extreme case" (Eisenhardt, 1989). An extreme case facilitates theory building because the tension investigated is more visible in such a context (Kreiner et al., 2009).

According to Yin (1989: 21), the goal in studying extreme cases is to "expand and generalize theories (analytical generalization) and not to enumerate frequencies (statistical generalization)." Given this criterion, we chose to study a variety of Chinese manufacturing firms that produce products such as boilers, electronics, pharmaceuticals, shoes, tires, and turbines.

We believe that manufacturing firms in China can be considered extreme cases due to the significant business-environment dilemma they confront. On the one hand, growing rapidly in the last three decades, manufacturing has helped China earn the nickname "factory of the world." Manufacturing currently contributes 33 % of China's GDP, the *highest* in the world—clearly, a global extreme (McKinsey Global Institute, 2012: 24).[4] On the other hand, the environmental pollution and damage caused by such rapid expansion of manufacturing in China have also been widely noted. Chinese manufacturing executives thus constantly have to confront the business-environment dilemma with two primary manifestations. (1) To survive and excel in a rapidly growing and increasingly competitive economy, an economically-oriented strategy is often called for. (2) To avoid heavy pollution and minimize environmental damage, an environmentally-oriented strategy also has a great deal of appeal. We were interested in how these executives manage the business-environment dilemma and whether some of their decisions were guided by the *tian-ren-he-yi* holism mindset.

Using a semi-structured format, we interviewed 49 executives in 36 manufacturing in nine regions. Specifically, given the substantial regional diversity within China (Li, Chen, Liu, & Peng, 2014; Shi, Sun, & Peng, 2012; Zhao, Li, Lee, & Chen, 2011), we investigated firms in Beijing, Guangdong, Guangxi, Heilongjiang, Shandong, Shanghai, Sichuan, Tianjin, and Zhejiang. Our informants are mainly top executives (75.5 %) who are responsible for firms' strategy making, such as presidents, senior managers, and senior engineers.

On average, interviews lasted from approximately 30 to 60 minutes. We tape recorded some (but not all) interviews as well as took notes during interviews. The primary method of data collection involved semi-structured questions. General questions revolved around issues such as (1) the current difficulties of dealing with environmental issues; (2) the ongoing programs aiming at strengthening competitive advantage; (3) the attention paid to both economic and environmental performance; and (4) the importance that our informants attached to economic and environmental performance.

At the most fundamental level, strategy is about making a bundle of choices (Porter, 1985; Porter & Kramer, 2011). Through analyzing the interviews, we find that facing the tension between economically-oriented and environmentally-oriented strategies, some Chinese mangers mainly strive for both balance and synergy. In summary, the contours of *tian-ren-he-yi* strategy have emerged from our qualitative investigation. *Tian-ren-he-yi* strategy, in Chinese managers' mind, seems to consist of *balance* and *synergy* simultaneously. Table 1 summarizes main

[4] In comparison, manufacturing contributes 28 % of South Korea's GDP (the second highest in the world), 20 % of Japan's, 19 % of Germany's, 13 % of Brazil's and India's, and 12 % of the United States' (McKinsey Global Institute, 2012: 24).

Table 1 Qualitative evidence from the field

Theoretical categories	Descriptions	Sample quotes[a]
Classical origins of *tian-ren-he-yi* strategy	Executives' active search for insights and inspirations from Chinese classics	• ". . . whenever my company faces a new management challenge, instead of thinking of Western theories and case studies that we went over in [MBA] class, I often thought of ancient Chinese thinking and wisdom first." — Executive from a pharmaceutical manufacturer, Guangxi Province • "Most of my understanding of how to manage companies comes from authors of Chinese classical works, such as Lao Tzu, Confucius, Mencius, Chuang Tzu, and Sun Tzu." — Executive from a shoe manufacturer, Zhejiang Province
Tension between economically-oriented and environmentally-oriented strategies	The business- environment dilemma that makes it hard to reconcile the seemingly competing demands of economically-oriented and environmentally-oriented strategies	• ". . . to generate sales we have to produce large quantities of traditional products that heavily pollute the environment but that are low costs for us to produce in the short run. We don't like it, but we really don't know how to break away from such a vicious cycle." — Executive from a tire maker, Zhejiang Province • ". . . the new environmental requirements imposed by the society at large have really made it hard for companies to grow. For example, thanks to these new environmental requirements imposed by the government, a lot of factories in our company had to move from urban centers to rural areas without adequate preparation. Such moves not only increased costs . . . but also introduced a great deal of uncertainties." — Executive from a fertilizer manufacturer, Shanghai Municipality
The first mechanism connecting *tian-ren-he-yi* strategy and firm performance: Balance (*ping heng*)	The relative magnitudes of economically-oriented and environmentally-oriented strategies	• ". . . instead of debating 'whether to shut down coal-fired power plants or not' and 'whether to use coal or not,' we should really focus on 'how to use better coal in a more environmentally responsible way.' If we can find a way to enhance the efficiency of converting cleaner coal to electricity, it would both generate more electricity and reduce pollution. Isn't that wonderful?" — Executive from a boiler producer, Shanghai Municipality • "Some projects probably won't make any money 'today,' but as long as we believe they will help us make money 'tomorrow,' we will be happy to invest. That said, we will not spend all our investment funds on projects that will only make money

Table 1 (continued)

Theoretical categories	Descriptions	Sample quotes[a]
		'tomorrow.' This is because we have to pick up 'today's money' too. Overall, the key is balance." — Executive from a boiler manufacturer, Shanghai Municipality
The second mechanism connecting *tian-ren-he-yi* strategy and firm performance: Synergy (*xie tong*)	The complementarity between high levels of economically-oriented and environmentally-oriented strategies	• "Our investment in new product R&D can generate a tremendous amount of synergy if our new products [boilers] can meet both customer requirements and environmental demands. . . On the one hand, from the standpoint of our customers (power plants), pollution-reduction performance is an important criterion of their requirements for our products. . . On the other hand, from the standpoint of our own production of boilers, pollution—like defects—typically reveals flaws in product design and production. If our new products are designed and produced with the impact of the pollutants that they will emit in mind, we will pay more attention to more meticulous design and higher caliber manufacturing in order to reduce pollutants." — Executive from a boiler manufacturer, Shanghai Municipality • ". . . we have invested in a pollution-reduction project with two goals. First, to reduce waste smoke that pollutes the factory location and the broader community. Second, to be more responsible for employee health and well-being. Healthier employees naturally result in higher work efficiency and better quality. As a result, such a project has really helped us reach the goal of 'win-win'." — Executive from a boiler manufacturer, Shanghai Municipality
The link between *tian-ren-he-yi* strategy and firm performance	The strategy's strong performance-enhancing potential along both dimensions of economic performance and environmental performance	• "A well-balanced strategy can generate benefits for both economic performance and environmental performance. Excellent economic performance of the firm can result in more funds to solve environmental problems. Only after environmental problems are taken care of can we really have high-quality economic performance. So economic performance and environmental performance are not necessarily contradictory—their relationship doesn't have to be 'zero sum'." — Executive from a light emitting diode (LED) manufacturer, Sichuan Province • "Who is coming to work for us, if they see our factory environment is so messed up? . . . a cleaner factory environment leads to higher caliber employees and better employee feelings and physique, which can lead to better efficiency.

Table 1 (continued)

Theoretical categories	Descriptions	Sample quotes[a]
		This ultimately would lead to a higher level of competitiveness for our firm. Further, a more competitive firm will have more money and more resources to take care of pollution problems. Therefore, I am 100 % supportive of launching the environmental protection initiative. Clearly, this will help improve the bottom line." — Executive from a tire maker, Shandong Province

[a] All of the quoted informants are Chinese. Some quotes have been slightly edited by the authors. Some quotes come from tape record, and others come from notes taken by authors during the interviews because respondents did not wish to have their answers tape recorded for confidentiality reasons

findings from our qualitative study. Leveraging these insights, next we engage in quantitative hypothesis testing.

Quantitative hypothesis testing

Sample and data

From our qualitative findings, we derived a rich understanding of the contours of *tian-ren-he-yi* strategy. To further test the theoretical claim that *tian-ren-he-yi* strategy has stronger performance-enhancing potential along both economic and environmental dimensions, we proceeded to collect data to quantitatively investigate our hypotheses. Using a face-to-face interview method, we surveyed firms in seven regions in China (Guangdong, Henan, Jiangsu, Jilin, Shaanxi, Shandong, and Shanghai).[5] These regions represent a great deal of regional diversity in China (Li et al., 2014; Shi et al., 2012; Zhao et al., 2011). To enhance generalizability, we not only included firms in manufacturing industries (our qualitative study only sampled manufacturers), but also service firms. A random sample of 1000 firms of various ownership types was obtained from the Ministry of Industry and Information Technology. Overall, 436 firms provided complete data, resulting in an effective response rate of 43.6 %.

Reliability and validity

To ensure reliability and validity, we followed the widely used method of prior research (Li & Atuahene-Gima, 2001; Li, Wei, & Liu, 2010). First, drawing on prior research and insights from our own qualitative interviews, we developed a survey questionnaire by integrating and adapting from prior measures. Second, a pilot survey on the preliminary draft questionnaire was conducted with 20 firms in one province, which were excluded from the final quantitative sample. In the pilot survey, we used face-to-face interviews to acquire opinion about the survey. Based on the feedback, we modified the items accordingly. Third, because mail survey generally had a low participation rate in China, we—with the help of local governments—interviewed managers face-to-face. To ensure reliability and consistency, all interviewers were thoroughly trained.

Non-response bias and common method variance Non-response bias and common method variance (CMV) are two main concerns in survey research (Podsakoff & Organ, 1986). To assess the non-response bias, we compared the responding firms with the non-responding firms in terms of firm age, size, and ownership, and found no significant differences.

To reduce the potential for CMV, we followed Van Bruggen, Lilien, and Kacker (2002) and Zhang and Li (2010) by inviting two managers in each firm to participate, and our interviewers met these two managers separately. Moreover, we triangulated the

[5] Firms in three regions (Guangdong, Shandong, and Shanghai) were involved in both qualitative and quantitative phases. However, within these three regions, we sampled different firms to obtain qualitative and quantitative data.

objective data from various archival sources such as local government databases and the Internet—to the extent possible (Zhou & Wu, 2010).

In addition, as Evans (1985) and Reinholt, Pedersen, and Foss (2011) proposed that interaction effects are robust against common method bias, our measurement of *tian-ren-he-yi* strategy, formulated with interaction between economically-oriented strategy and environmentally-oriented strategy, can control the effects of potential common method bias in our survey. More importantly, as Siemsen, Roth, and Oliveira showed, "Common method variance [CMV] can be effectively controlled by including other independent variables, which exhibit small bivariate correlation ($p < .30$) among each other and those measures that suffer from CMV. Thus, CMV is less of a problem in OLS models with many independent variables, especially if these variables are not highly correlated" (2010: 472). Overall, we included nine independent variables that all have a bivariate correlation below .30, except the correlation between technological turbulence and technological breakthrough (.34). In sum, neither non-response bias nor CMV was likely to be a serious problem.

Measures

Leveraging insights gained from our qualitative findings, we developed a new measure for *tian-ren-he-yi* strategy. Other measures were drawn from existing research and adapted to the Chinese context when necessary. Except specifically stated ones, all items were measured on a five-point Likert scale (1 = strongly disagree and 5 = strongly agree). For multi-item constructs, we averaged the items to create the scores for the constructs.

Economic performance We used pre-tax return on sales (ROS) as firms' economic performance indicator, which is used widely in prior research in China (Chan, Makino, & Isobe, 2010) as well as elsewhere (Hart & Ahuja, 1996).

Environmental performance Following Chan (2005), and Russo and Fouts (1997), we used six items to measure environmental performance. Managers were asked to score their firms on: (1) "We reduced the carbon dioxide emissions in the past 3 years," (2) "We reduced the production of solid waste in the past 3 years," (3) "We reduced the use of dangerous, poisonous, or harmful materials in the past 3 years," (4) "We performed well in the environmental audit in the industry in the past 3 years," (5) "We were highly rated by the environmental authorities in the past 3 years," and (6) "Our efficiency of using energy was significantly improved in the past 3 years." The multi-item α was .92.

Economically-oriented strategy Based on Chan and Lau (2000) and Sharma and Vredenburg (1998), firms' economically-oriented strategy is measured by six items: (1) "We protect the environment after we ensure the benefit of our employees," (2) "We protect the environment after we ensure the benefit of our shareholders," (3) "We protect the environment after we ensure the benefit of our business partners," (4) "We protect the environment after we ensure the benefit of our executives,"(5) "When experiencing poor performance, we put the enterprise's survival and development as first priority," and (6) "We accumulate strengths first, and then improve the environment." The multi-item α was .88.

Environmentally-oriented strategy To capture firms' environmentally-oriented strategy, we used three items adapted from Chan and Lau (2000), and Sharma and Vredenburg (1998): (1) "We view environmental protection as competitive advantage not burden," (2) "Continuous reducing carbon emissions and pollution can enhance our competitiveness," and (3) "Our products create benign environmental impact as well as good economic benefit." The multi-item α was .82.

***Tian-ren-he-yi* strategy** To measure firms' *tian-ren-he-yi* strategy, we created a new measure. This measure captures the two underlying attributes, balance and synergy, of holism mindset as identified by our qualitative findings. Conceptually, we argue that balance can be measured by the absolute difference between the scores of economically-oriented and environmentally-oriented strategies. The smaller the absolute difference between the two scores of economically-oriented and environmentally-oriented strategies, the higher the level of balance. It is important to note that our measure of balance is not a 50–50 split.[6] In addition, inspired by Cao, Gedajlovic, and Zhang (2009). Gibson and Birkinshaw (2004), and He and Wong (2004), we propose to multiply economically-oriented strategy and environmentally-oriented strategy to operationalize synergy.

For the purposes of keeping the same dimension between *tian-ren-he-yi* strategy and the two isolated strategies, we used the following formula to express and measure *tian-ren-he-yi* strategy Y_4:

$$Y_4 = h(S_{ECON}, S_{ENVI}) = \frac{(5-|S_{ECON}-S_{ENVI}|) \times \sqrt{S_{ECON} \times S_{ENVI}}}{5} \quad (5)$$

[6] For example, firm X simultaneously implements economically-oriented strategy and environmentally-oriented strategy. Our measurement of balance indicates that when the respondent of X scored economically-oriented strategy and environmentally-oriented strategy, the basic assumption is that the score of Likert scale reflects the effort employed by X. We assume X has five options (scenarios) to split its efforts (100) into economically-oriented strategy and environmentally-oriented strategy. The more efforts X devotes to implement economically-oriented strategy, the higher score of its Likert scale. The same holds for environmentally-oriented strategy. Please see the following table.

Scenario	Efforts devoted to economically-oriented strategy by X	Likert scale score of X in economically-oriented strategy	Efforts devoted to environmentally-oriented strategy by X	Likert scale score of X in environmentally-oriented strategy	Absolute difference of efforts	Absolute difference of Likert scale score
1	90	5	10	1	80	4
2	80	4	20	2	60	2
3	70	3	30	3	40	0
4	60	2	40	4	20	2
5	50	1	50	5	0	4

This table shows how our balance measure reflects the asymmetry principle. In this case, the strongest balance is scenario 3, in which X splits 70 of its efforts to economically-oriented strategy and 30 to environmentally-oriented strategy. However, the difference of Likert scale score between these two strategies is 0. In other words, when our measure of balance equals 0, the actual efforts of balance are 40. This scenario thus reflects the balance asymmetry principle of *yin-yang*.

where S_{ECON} and S_{ENVI} are the scores of economically-oriented and environmentally-oriented strategies, $|S_{ECON}-S_{ENVI}|$ is their balance (the absolute difference), and $S_{ECON} \times S_{ENVI}$ is the synergy level between these two strategies. To make sure the final score of *tian-ren-he-yi* strategy is an increasing function of the balance score and greater than zero, we used five minus the difference between two strategies to represent the balance score. This was because of our use of the five-point Likert scale. Also, to keep the same dimension between *tian-ren-he-yi* strategy and the two isolated strategies, we revised the synergy score by taking a square root of the product between two strategies. Finally, to keep the final score of *tian-ren-he-yi* strategy within one to five (the same scale with both isolated strategies), the product of balance and synergy is divided by five. Thus, a firm would score high on the measure of *tian-ren-he-yi* strategy if both the balance score ($5-|S_{ECON}-S_{ENVI}|$) and the synergy score ($\sqrt{S_{ECON} \times S_{ENVI}}$) are relatively high.

Control variables We included three sets of control variables. First, we controlled for firm age, size, ownership, and industry. Specifically, firm age was measured by the years since the firm was established. Firm size was measured by full-time employees. The four ownership types were collectively-owned, joint-venture, privately-owned, and state-owned firms. The six industries were manufacturing, IT technology, construction, logistics, retail, and business service.

Second, we controlled technological breakthrough and technological turbulence that would influence firm performance. Following Lichtenthaler (2009), we measured technological breakthrough by asking managers to rate: "The technology breakthrough makes it possible for new ideas coming forth in this industry." We measured technological turbulence by asking managers to rate: "It is difficult to forecast the trend of technological change in this industry."

Third, competition in the local market was controlled, because the environment may have a significant impact on firm performance (Voss, Sirdeshmukh, & Voss, 2008). Specifically, managers were asked to rate the extent to which he/she agreed: "Competition in the local market is intense."

Quantitative findings

Table 2 presents basic statistics. Economically-oriented strategy had a relatively high correlation with economic performance ($r = .09$, $p < .1$), but not with environmental performance ($r = .08$, $p = .09$). Environmentally-oriented strategy had a relatively high correlation with environmental performance ($r = .57$, $p < .01$), but not with economic performance ($r = .04$, $p = .38$). Interestingly, the relationship between economic performance and environmental performance was not as positive ($r = .05$, $p = .33$) as that reported in Chan (2005) and Russo and Fouts (1997).

Table 3 displays results of construct measurement and confirmatory factor analysis. All factor loadings (.66–.91) exceeded the .60 benchmark. The composite reliabilities of all constructs (.88–.94) and all average variances extracted (AVE) were greater than .05. These measures demonstrated adequate convergent validity and reliability (Nunnally, 1978). Following Fornell and Larcker (1981), we then assessed the discriminant validity of the measures. We calculated the shared variance between all possible

Table 2 Descriptive statistics and correlations

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9	10
1. Firm age	1989.66	98.06										
2. Firm size	2041.03	11854.35	−.06									
3. Ownership type	2.34	.88	.02	.04								
4. Industry type	1.67	1.33	.04	.04	−.14							
5. Technological turbulence	2.99	.82	−.04	.00	−.04	−.05						
6. Technological breakthrough	3.60	.72	−.04	.02	.04	.05	.34					
7. Competition in local market	4.20	.69	−.04	.04	.03	.08	−.05	.13				
8. Economic performance	132.25	1284.25	.02	−.01	.05	.04	.03	.04	.00			
9. Environmental performance	3.94	.56	.18	.05	.05	.00	.04	.23	.18	.05		
10. Economically-oriented strategy	3.38	.69	−.04	−.01	.00	.06	.20	.13	.08	.09	.08	
11. Environmentally-oriented strategy	3.87	.58	.17	.10	.02	.06	.04	.16	.10	.04	.57	.05

$N = 407$. Correlations above | .10 | are significant at the .05 level

Table 3 Construct measurement and confirmatory factor analysis results

Item description summary	Standardized loading
Economically-oriented strategy (α = .88, AVE = .64, CR = .91)	
Rate the extent to which you agree with the following statements:	
1. We protect the environment after we ensure the benefit of our employees.	.78
2. We protect the environment after we ensure the benefit of our shareholders.	.90
3. We protect the environment after we ensure the benefit of our business partners.	.90
4. We protect the environment after we ensure the benefit of our executives.	.83
5. When experiencing poor performance, we put the enterprise' survival and development as first priority.	.70
6. We accumulate strengths first, and then improve the environment.	.66
Environmentally-oriented strategy (α = .82, AVE = .75, CR = .90)	
Rate the extent to which you agree with the following statements:	
1. We view environmental protection as a competitive advantage not a burden.	.84
2. Continuous reducing carbon emissions and pollution can enhance our competitiveness.	.91
3. Our products create benign environmental impact as well as good economic benefit.	.84
Environmental performance (α = .92, AVE = .71, CR = .94)	
Rate the extent to which you agree with the following statements:	
1. We reduced the carbon dioxide emissions in the past 3 years.	.82
2. We reduced the production of solid waste in the past 3 years.	.86
3. We reduced the use of dangerous, poisonous, or harmful materials in the past 3 years.	.86
4. We performed well in the environmental audit in the industry in the past 3 years.	.85
5. We were highly rated by the environmental authorities in the past 3 years.	.81
6. Our efficiency of using energy was significantly improved in the past 3 years.	.85

α Cronbach's alpha, *AVE* average variance extracted, *CR* composite reliability

pairs of constructs to determine if they were lower than the AVE for the individual constructs. The results indicated that for each construct the AVE is higher than the highest shared variance with other constructs. In sum, our measures possess adequate reliability and validity.

To test our hypotheses, we constructed optimal scaling regression (OSR) models. This was because OSR models can reduce the uncertainty in the unit of measurement with a 5-point Likert scale (Didow, Keller, Barksdale, & Franke, 1985), and they have been widely used in analysis of questionnaire data (Li et al., 2010; Perreault & Young, 1980).

In Table 4, to explore how balance and synergy affect both economic and environmental performance, we first ran base models with controls only in Models 1 and 3, and then added balance and synergy in Models 2 and 4. Our results showed that balance is positively related with both economic performance ($\beta = .16$, $p < .01$) and environmental performance ($\beta = .14$, $p < .05$). In a similar fashion, synergy is also positively related with both economic performance ($\beta = .15$, $p < .01$) and environmental performance ($\beta = .11$, $p < .1$).

In Table 5, we first ran base models with controls only Models 1 and 3 (the same Models 1 and 3 as in Table 4). Then we added the predictor variables in Models 5 and

Table 4 Effects of balance and synergy on economic performance and environmental performance

Variables	Economic performance		Environmental performance	
	Model 1	Model 2	Model 3	Model 4
Firm age	.13*	.04	.26***	.25***
	(.06)	(.06)	(.05)	(.06)
Firm size	−.11*	.09	.19***	.18***
	(.06)	(.06)	(.06)	(.06)
Ownership type	.04	−.02	.14***	.17***
	(.06)	(.06)	(.05)	(.06)
Industry type	.09*	−.01	.11*	.11***
	(.05)	(.06)	(.05)	(.06)
Technological turbulence	.11*	.17***	−.09*	−.12**
	(.06)	(.06)	(.05)	(.05)
Technological breakthrough	−.11*	−.31***	.21***	.22***
	(.06)	(.06)	(.05)	(.05)
Competition in local market	.07	.06	.26***	.26***
	(.05)	(.06)	(.05)	(.05)
Balance		.16**		.14*
		(.07)		(.07)
Synergy		.15**		.11†
		(.07)		(.07)
N	355	314	339	312
R^2	.09	.11	.21	.23
Adjusted R^2	.04	.05	.15	.18
F-Value	1.98***	1.73*	3.67***	3.16***

Models are optimal scaling regressions. † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

6. In Hypotheses 1a and 1b, we argued that firms' economically-oriented strategy would be positively related with economic performance but not environmental performance. Models 5 and 6 supported Hypothesis 1b but not Hypothesis 1a. We shifted to Hypotheses 2a and 2b, which posited that environmentally-oriented strategy would not be positively related with economic performance but would be positively associated with environmental performance. We found that it is positively and significantly related with environmental performance in Model 6 ($\beta = .48$, $p < .001$), but not economic performance in Model 5. Thus, Hypotheses 2a and 2b were supported. Further, we found *tian-ren-he-yi* strategy to be positively and significantly related with *both* economic performance in Model 5 ($\beta = .26$, $p < .001$) and environmental performance in Model 6 ($\beta = .09$, $p < .05$), supporting both Hypothesis 3a and 3b.

Post hoc robustness checks

To gain additional insights, we conducted two post hoc robustness checks to examine the performance-enhancing potential of *tian-ren-he-yi* strategy. First, to address the concern that there might be self-justification with respect to subjective environmental performance measures reported by survey informants, we used an

Table 5 Regression results for economic performance and environmental performance

Variables	Economic performance		Environmental performance	
	Model 1	Model 5	Model 3	Model 6
Firm age	.13*	.11†	.26***	.11***
	(.06)	(.06)	(.05)	(.05)
Firm size	−.11*	−.08	.19***	−.04
	(.06)	(.06)	(.06)	(.05)
Ownership type	.04	.01†	.14***	.06
	(.06)	(.06)	(.05)	(.05)
Industry type	.09*	.08	.11*	−.10*
	(.05)	(.05)	(.05)	(.05)
Technological turbulence	.11*	.10**	−.09*	−.07†
	(.06)	(.05)	(.05)	(.05)
Technological breakthrough	−.11*	−.15**	.21***	.17***
	(.06)	(.06)	(.05)	(.05)
Competition in local market	.07	−.05	.26***	.19***
	(.05)	(.05)	(.05)	(.05)
Economically-oriented strategy (H1a, H1b)		.06		.01
		(.05)		(.05)
Environmentally-oriented strategy (H2a, H2b)		.05		.48***
		(.05)		(.05)
Tian-ren-he-yi strategy (H3a, H3b)		.26***		.09*
		(.05)		(.05)
N	355	337	339	335
R^2	.09	.15	.21	.40
Adjust R^2	.04	.10	.15	.35
F-Value	1.98***	3.29***	3.67***	7.55***

Models are optimal scaling regressions. † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

alternative, objective measure, composed of firms' amount of sewage and emission, to test our main findings.[7] Specifically, we asked informants to choose: "Compared with national standards, what is the level of your firm's amount of sewage/emission? (1) higher than 20 %, (2) higher than 10–20 %, (3) equal, (4) lower than 10–20 %, and (5) lower than 20 %." Both factor loadings for sewage and emission were .98 that exceeded the .60 benchmark, and α was .95. The new results were very similar to our main findings. Specifically, economically-oriented strategy was negatively related with the amount of sewage and emission ($\beta = -.22$, $p < .001$). Although environmentally-oriented strategy and *tian-ren-he-yi* strategy were both positively related with the alternative environmental

[7] This is a subsample (subgroup) analysis since we could not obtain such data for all sampled firms. Overall, 191 firms reported such data. We ran a *t*-test to ascertain whether these 191 firms and the rest of the sample had significant differences in terms of age and size. We found that firms that reported the objective environmental index were not statistically different from those not reporting such data (age: $F = 2.00$, $p = .16$; size: $F = 1.89$, $p = .17$).

performance measure, the latter ($\beta = .33$, $p < .001$) was more significant than the former ($\beta = .11$, $p < .08$).

Second, we replaced our economic performance measure (pre-tax ROS) with net (after-tax) ROS (NROS). Results showed that *tian-ren-he-yi* strategy was still positively associated with NROS ($\beta = .19$, $p < .001$). However, neither economically-oriented nor environmentally-oriented strategy was positively related with NROS in a statistically significant way. Overall, our robustness checks increased our confidence in the performance-enhancing potential of *tian-ren-he-yi* strategy.

Discussion

Contributions

In our view, at least three contributions emerge. First, responding to the calls for a new mindset to manage the business-environment dilemma and drawing on the cultural, philosophical, and intellectual traditions of the East to propel a new generation of management research, we have identified and articulated *tian-ren-he-yi* strategy that is based on the holism school of thought. While research on the holism school of thought is broad and enduring (dating back several thousand years), we extend and enrich earlier work by channeling holism research toward an area of intense interest among management scholars: how to effectively deal with the business-environment dilemma. Specifically, management theorists are dedicated to developing internally consistent theories (Lewis, 2000; Smith & Lewis, 2011), and the presence of contradictory assumptions, explanations, or conclusions is often viewed as an indicator of poor theory building. As a result, scholars are encouraged to engage in debates (Poole & Van de Ven, 1989). Our research sheds new light on the business-environment debate by proposing a new strategy based on the Chinese *yin-yang* mindset.

Second, this study takes an initial step forward by empirically—via *both* qualitative and quantitative methods—clarifying the contours of *tian-ren-he-yi* strategy. While verbal arguments have been used for thousands of years in research on holism, we have gone beyond such research by presenting the first set of empirical findings centered on the *tian-ren-he-yi* strategy. In short, we have injected rigor and vigor to the long line of research on holism. Moreover, several researchers have recognized the risk of CMV in their studies. Our research has adopted a mixed-method design with both quantitative and qualitative methods, which overcome the drawbacks associated with each method, especially those associated with CMV.

Finally, we have unpacked *tian-ren-he-yi* strategy by leveraging qualitative work to clarify its two underlying dimensions (balance and synergy) and by undertaking quantitative hypothesis testing to enhance the generalizability of our theoretical claim. By doing so, we both articulate the concept of *tian-ren-he-yi* strategy and operationalize it. Despite the claim that holism is an effective way of negotiating intelligently in complex social contradictions (Chen, 2002; Lewis, 2000; Li, 2014; Peng & Nisbett, 1999), previous empirical evidence on this claim is thin. To the best of our knowledge, previous empirical research that draws on the *tian-ren-he-yi* perspective did not exist prior to our efforts. Therefore, our empirical efforts to document the performance-enhancing potential of *tian-ren-he-yi* strategy to drive both economic and

environmental performance—superior than either the economically-oriented or environmentally-oriented strategy—represent a major contribution.

Limitations and future research directions

Our results need to be interpreted in light of limitations. First, in striving for simplicity and controlling for the context, we have merely used data from China. Future research can extend this study to other countries (such as those in the West and those in other parts of East Asia) to examine the generalizability of our findings.

Second, since our qualitative study mainly focuses on manufacturing firms as extreme cases, we have not been able to dive into the strategy making processes of non-manufacturing firms. Although our quantitative survey has sought to overcome this potential industry bias by surveying a substantial number of non-manufacturing firms, a full three-fourths of our quantitative sample still consists of manufacturers. In addition, because our study uses cross-sectional data, our quantitative findings document correlation rather than causation. How dynamic *tian-ren-he-yi* strategy is to improve the effectiveness of dealing with the business-environment dilemma *over time* remains to be seen. Given that striking a balance and leveraging synergy between economically-oriented and environmentally-oriented strategies involves significant learning over time, we speculate that the relationship between *tian-ren-he-yi* strategy and the two performance indicators may be positively moderated by time. Future research can use panel data to explore this proposition.

Finally, Eastern cultural, philosophical, and intellectual traditions can be a rich source of inspiration for management research (Li & Peng, 2008). However, with the exception of *guanxi* (Peng & Luo, 2000) and *middle way* (Chen, 2002), such traditions have yet to be explored in management research. Our efforts are merely a first step to tap into such a potentially rich gold mine, and future researchers are encouraged to join such "mining" efforts (Li, 2014, 2016).

Conclusion

Does *tian-ren-he-yi* strategy have stronger performance-enhancing potential to engage the business-environment dilemma when compared with isolated, economically-oriented or environmentally-oriented strategies? Based on our theoretical arguments, qualitative findings, and quantitative results, our answer is "yes." With respect to "why," we argue that economically-oriented and environmentally-oriented strategies are driven by the either/or mindset, and thus miss the balance and the synergy effect between these two strategies. In contrast, *tian-ren-he-yi* strategy excels by striking a balance and leveraging synergy between the two.

While the idea of *tian-ren-he-yi* is Chinese in origin, the practice of *tian-ren-he-yi* strategy is not necessarily China-only (Fang, 2010; Leung, 2012). In fact, a great number of Chinese firms—both in our sample and in the broader economy—have *not* practiced this strategy. Also, numerous non-Chinese firms have been implicitly practicing this strategy, and the spirit of recent Western authors such as Hart (1995) and Porter and Kramer (2006, 2011), in our view, broadly shares a great deal with the spirit of the *tian-ren-he-yi* perspective. In conclusion, we suggest that although originated as an Eastern perspective, *tian-ren-he-yi* is not necessarily confined to China. Instead, it is

a global mindset that enables firms to effectively engage the business-environment dilemma, thus deserving significant attention from management scholars and practitioners not only in China, but also around the world.

Acknowledgments We thank Peter Li (Senior Editor), Mick Carney (Editor-in-Chief), and an anonymous reviewer for constructive guidance. This research was supported in part by the Natural Science Foundation of China (NSFC 71132006, 71421002) and by the Jindal Chair at UT Dallas.

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