# ORIGINAL RESEARCH The Influence of Taoism on Employee Low-Carbon Behavior in China: The Mediating Role of Perceived Value and Guanxi

Chunyu Zhang <sup>[b]</sup>, Liping Liu <sup>[b]</sup>, Qijie Xiao<sup>2</sup>

<sup>1</sup>School of Economics and Management, Guangxi Normal University, Guilin, 541004, People's Republic of China; <sup>2</sup>Suzhou Monash Research Institute of Science and Technology, Suzhou, 215300, People's Republic of China

Correspondence: Liping Liu, School of Economics and Management, Guangxi Normal University, 15 Yucai Road, Qixing District, Guilin, Guangxi, 541004, People's Republic of China, Email 865248131@qq.com

Purpose: We established a dual-pathway model in which Taoism at work can shape employee low-carbon behavior via two mediating mechanisms: perceived value as a psychological mediator and guanxi as a social mediator.

**Patients and Methods:** Data were collected from 788 Chinese enterprises employees.

Results: Our results confirm the direct positive effect of Taoism on employee low-carbon behavior and the partial mediating effects of perceived value and co-worker guanxi. However, supervisor-subordinate guanxi does not mediate the relationship between Taoism and employee low-carbon behavior.

**Conclusion:** Despite the key role of employee low-carbon behavior, the individual-level antecedent to employees' pro-environmental behavior remains underexplored. This study examines the influence of Taoism (an individual-level cultural value) on employee lowcarbon behavior in the Chinese context. Theoretical and managerial implications were discussed.

Keywords: Chinese traditional culture, social cognitive theory, employee sustainability, green

### Introduction

With the ever-increasing awareness of how industrial and economic activities are giving rise to environmental degradation and global warming, the sustainable development of enterprises is an issue of widespread concern in management and society as a whole.<sup>1</sup> In 2020, the Chinese government pledged that its carbon emissions would reach zero and it would become carbon neutral by 2060.<sup>2</sup> As such, pro-environmental business activities and employee low-carbon behavior have attracted burgeoning attention from both scholars and practitioners.<sup>3</sup>

Despite considerable progress past studies have made, there are still several research gaps. First, prior literature mainly focused on the organization-level antecedents of low-carbon behavior, such as organizational culture,<sup>4</sup> human resource management,<sup>5</sup> corporate strategy<sup>6</sup> and leadership characteristics.<sup>7</sup> And individual-level antecedent variables of low-carbon behavior, such as employee green passion,<sup>8</sup> self-efficacy.<sup>9</sup> Given this, the study explores employee lowcarbon behavior from a cultural perspective.

Although a few studies revealed the role of morality (an important individual-level value) in motivating employees' environmental behavior,<sup>10</sup> the mediating processes between individual values and employee low-carbon behavior remain unclear. This is a significant research gap in that we can by no means build novel theories without a dynamic understanding of the mediating mechanisms which explicate a given relationship.<sup>11,12</sup>

The current study makes three contributions to employee low-carbon behavior literature. First, our study is among the first to identify the role of an individual-related antecedent (Taoism) in shaping employee low-carbon behavior. Taoism advocates morality<sup>13</sup> and altruism.<sup>14</sup> Although there is a view that China is not a Confucian country.<sup>15</sup> aspects of Confucianism can be found in some Chinese businesses.<sup>16</sup> Zhong Yong thinking (Confucianism) influence on the mental<sup>17</sup> and trait<sup>18</sup> of Chinese

employees has been confirmed. The same is true of Taoism, which exists in companies such as Alibaba.com.<sup>14</sup> Therefore, current research explores the effect of Taoism on employee low-carbon behavior. This can mark a departure from previous studies on employee low-carbon behavior, which primarily adopted employee-organization fit theory to elucidate the *organization*-related antecedents of employee low-carbon behaviors <sup>19</sup>. Second, our study is based on SCT to illuminate the mediating processes between Taoism and employee low-carbon behavior. Based on SCT, employees' social interactions and cognitive images will work together to impact their behavioral outcomes.<sup>20</sup> We evaluate whether perceived value is a psychological mediator in the relationship between Taoism and employee low-carbon behavior. Identifying novel mediating mechanisms is important because it can tease out a given relationship and build novel theories.<sup>12</sup> Third, we extend the employee low-carbon behavior. Our findings lend support to past literature showing that social interactions such as guanxi may shape employee low-carbon behavior.<sup>21</sup>

# Literature Review and Hypothesis Development

### Taoism and Employee Low-Carbon Behavior

The core principle of Lao Tzu's Taoist thought is "Wu Wei", which is understood as governing by doing nothing or noncoercive action.<sup>21</sup> "Taoism follows nature", which is interpreted as meaning that humans are children of nature and that children must respect nature as well as their parents.<sup>22</sup> "The unity of heaven and man" is an important moral norm for people, reminding them to be kind and friendly to nature. If human beings ignore the laws of nature and arbitrarily destroy the harmonious relationship between humans and nature, they will be punished by heaven and earth, which will threaten the survival and development of human beings themselves.<sup>23</sup> Taoism mainly emphasizes the values of non-argument, humility, obedience, and the pursuit of lower status.<sup>13</sup> As a key cultural value in China, Taoism may advocate morality<sup>13</sup> and altruism.<sup>14</sup> Taoism is also deeply rooted in individual's day-to-day lives and can guide individual's environmentally friendly behaviors.<sup>24</sup> Moreover, they found that individuals with religious identities are more willing to engage in public environmental protection behaviors than political participants without religious identities.<sup>25</sup>

Low-carbon behavior derives from corporate social responsibility.<sup>26</sup> Employee low-carbon behavior is an environmental behavior in employees' daily life. Prior research mainly studied organizational citizenship behavior toward the environment, green behavior, and pro-environmental behavior. Organizational citizenship behavior toward the environment is employees engaging in sustainable development as the goal and voluntarily completing environmental behaviors not specified by the company.<sup>27</sup> The pro-environmental behavior research object is mainly tourists.<sup>28,29</sup> Compared with organizational citizenship behavior for the environment, green behavior and pro-environment behavior, low-carbon behavior makes it easier to communicate in theory and practice. Given this, this study believes that Taoism may directly shape employee pro-environmental behavior.

Thus, the following hypothesis is proposed:

H1: Taoism positively affects employee low-carbon behavior.

# Taoism and Perceived Value

Perceived value is defined as the consumer's overall evaluation of the usefulness of a product or service,<sup>30</sup> which is mainly composed of utility and cost,<sup>31</sup> including quality and price.<sup>32</sup> As the internal customer, employees also act as consumers.<sup>33</sup> In this study, we define perceived value as the employee's evaluation of their own company's products in terms of emotional value, functional value, and overall value.<sup>34</sup>

Taoism is the transporter of moral values.<sup>13</sup> In fact, the core principle of Taoism (eg, Taoism follows nature) will motivate employees to follow the Taoist code of conduct.<sup>22</sup> Taoism has influenced Chinese people to experience more natural experiences and self-cultivation, challenging the stereotypes of Chinese people (emphasizing the importance of shopping and gambling in tourism).<sup>35</sup> Culture and personal values influences perceived service quality.<sup>36</sup>

Based on the SCT, individuals' cognitive schemas are significantly influenced by their cultural values.<sup>20</sup> Taoism, as a specific kind of individual-level cultural belief, may trigger environmental reactions. More specifically, employees with Taoist

values are more likely to attach higher perceived values (functional value, overall value, emotional value) to the products or services than others without Taoist values.

Thus, the following hypothesis is proposed:

H2: Taoism positively affects perceived value (a functional value, b overall value, c emotional value).

# Perceived Value and Employee Low-Carbon Behavior

The higher perceived cost reduces environmental behavior (waste separation).<sup>37</sup> Prior literature has shown that the leader's values and the followers' perceived value congruence can produce positive outcomes.<sup>38</sup> The employee's evaluation of the company's products/services implies that this employee conforms to the company's values, such as Taoist values. In this regard, employees are inclined to make actions (employee low-carbon behavior in our study) that are in line with the pro-environmental product/service values. Moreover, environmental transformational leadership has an indirect effect on employee environmental behavior through autonomous motivation,<sup>39</sup> which is a psychological variable similar to perceived value. In effect, pro-environment attitudes have positively mediated the effect of daily emotions on pro-environmental behaviors at work.<sup>40</sup> This is not surprising considering that a mixture of moral and personal norms and self-interest foster pro-environmental behavior; both of these are highly relevant to perceived value.

We posit that when employees perceive that the products or services provided by their own enterprise are of good quality and available at a reasonable price, they are likely to engage in positive behavior towards the environment. This view is consistent with Dieste, Panizzolo, Garza-Reyes, Anosike,<sup>41</sup> which lean practice can improve environmental performance.

According to SCT, psychological factors may mediate the relationship between individuals' values and behaviors. Psychological schemas may act as a means for individuals to influence their behaviors, satisfy personal needs, achieve survival goals, and improve the adaptability.<sup>20</sup>

Thus, the following hypotheses are proposed:

H3: Perceived value (a. functional value, b. overall value, c. emotional value) positively affects employee low-carbon behavior.

H4: Taoism positively affects employee low-carbon behavior through perceived value (a functional value, b overall value, c emotional value), and perceived value (a functional value, b overall value, c emotional value) has a mediating effect.

# Taoism and Guanxi

Guanxi is usually a multi-path process starting with two parties. It is guanxi cultivation (a process).<sup>42</sup> Within a company, the relationship between supervisors and subordinates is a special kind of binary emotional bond, which may promote emotional communication between the connected parties.<sup>43</sup> Therefore, guanxi in the workplace has two aspects: the supervisor-subordinate guanxi, which is considered to be the tolerance and respect of individuals and supervisors, and the co-worker guanxi, which is considered to be daily work cooperation among employees and the exchange of activities after work.<sup>44</sup>

According to SCT, when people believe the environment is controllable on matters of importance to them, they are motivated to fully exercise their personal efficacy, which enhances the likelihood of success.<sup>20</sup> Taoism is manifested in cognition; Taoism is a response to the philosophy of nature; Taoism is a driving force of employees' workplace behaviors.<sup>21</sup> The reason for the aforementioned factors is that Guanxi can act as a social/environmental factor. That is, Taoism emphasizes the combination of human actions and environmental forces and the prospect of compatibility by operating in a dynamic environment.<sup>45</sup> Therefore, Chinese businessmen influenced by Taoism tend to change their strategies according to the momentum in the environment.<sup>46</sup> Prior studies have argued that the key components of Taoism ("Wu Wei" and "Yin Yang") are significantly associated with guanxi.<sup>47</sup> "Wu Wei" is considered as governing by doing nothing or noncoercive action,<sup>21</sup> while "Yin Yang" refers to the Chinese tendency to see everything as a unity of opposites and interconnections.<sup>47</sup>

Thus, the following hypothesis is proposed:

H5: Taoism will positively affect guanxi (co-worker guanxi and supervisor-subordinate guanxi).

# Guanxi and Employee Low-Carbon Behavior

The supervisor-subordinate guanxi affects employees' pluralistic ignorance, which, in turn, influences their pro-environmental behavior within organizations.<sup>48</sup> Employee low-carbon behavior is driven by a mixture of moral and personal norms and self-interest.<sup>27</sup> The moral kind of Taoism has a stronger effect on employee low-carbon behavior. Guanxi acts as an environmental mediator; when employees develop a good relationship with their colleagues and supervisors, they are more likely to develop a high level of organizational commitment,<sup>49</sup> and conduct voluntary green behavior.<sup>19</sup>

According to SCT, individuals' behaviors will be influenced by the social context (eg, close friends, relatives and colleagues) in which they are embedded.<sup>50</sup> To maintain and improve their reputation, company colleagues need to regulate their behavior and strive to achieve their expected goals. These are not necessarily the behaviors specified by the company.<sup>51</sup> In the workplace, employees' guanxi with their co-workers and supervisors may be regarded as social cues, which have a joint effect on employee low-carbon behavior.

Thus, the following hypotheses are proposed:

H6: Guanxi (a co-worker guanxi; b supervisor-subordinate guanxi) will positively affect employee low-carbon behavior.

H7: Taoism will positively affect employee low-carbon behavior through guanxi (a co-worker guanxi; b supervisor-subordinate guanxi), and guanxi (a co-worker guanxi; b supervisor-subordinate guanxi) will have a mediating effect.

Based on the above research hypotheses, the framework of this study is shown in Figure 1.

# **Materials and Methods**

### Sample and Procedures

To test our hypotheses, we collected data from nine private-owned enterprises in the Guangxi Province, China. Using the convenience sampling method, we accessed these enterprises through our personal relationships with the senior managers. The electronic questionnaire was created using the "Questionnaire Star" software. With senior managers' support, the first author distributed electronic questionnaires to the corporate QQ and Wechat groups and encouraged the employee to complete the survey. It is difficult for social science researchers to obtain an accurate sampling frame from one single company.<sup>52</sup> Therefore, this research does not study a specific company but rather an occupation. A cover letter



Figure I Research framework.

that explained this study's research purposes was included on the front page of the survey. Employees who completed the questionnaire had a chance to receive a small gift as a token of gratitude. Most respondents completed the questionnaire at home after working hours. In order to minimize the possibility of bias and social desirability, we ensured full anonymity for all respondents: respondents did not need to provide their personal identification information on the questionnaire. Moreover, management had no access to the completed surveys.

The questionnaires were distributed from November 2019 to December 2019. A total of 788 valid questionnaires were received. The response rate cannot be reported because we cannot calculate the specific number of employees receiving the electronic survey link. The received questionnaires were complete. Among them, the number of female respondents was 436 (55.3%); 466 (59.1%) were between 25 and 31 years old, and 461 (58.5%) of those held an undergraduate level of education.

### Measures

We used a self-report questionnaire to obtain all measures. We performed a back-translation method of the English scales to make them understandable to Chinese participants.<sup>53</sup> The questionnaire was first translated into Chinese by the first author and then translated back into English by the second author to make sure the translation was accurate and reliable. We also asked an English expert who grew up in Taiwan to assess both versions of the questionnaire.

We adopted a five-point Likert-type scale (from "strongly disagree = 1" to "strongly agree = 5") to measure Taoism, perceived value, and guanxi, while using a six-point Likert-type scale (from "strongly disagree = 1" to "strongly agree = 6") to measure employee low-carbon behavior. We varied the number of scale points to mitigate common method bias, see Otterbring, Folwarczny.<sup>54</sup>

Taoism. Taoism was measured with the 6-item scale developed by Lin, Ho, Lin.<sup>13</sup> (1) "I am not in a hurry to obtain material benefits (except basic needs) through salary increases or promotion". (2) "I respect the personal differences of my colleagues". (3) "What my boss tells me to do, I will do it and not quarrel". (4) "I do not compete with others". (5) "I don't interfere too much with the work of my colleagues". (6) "I don't like being famous". The Cronbach's alpha coefficient for the scale was 0.67.

Perceived value. Perceived value was measured using the 15-item scale developed by Lee, Yoon, Lee.<sup>34</sup> A sample item is "Our company's products are reasonably priced". The Cronbach's alpha coefficient for the scale was 0.76.

Guanxi. Guanxi was measured using the 8-item scale developed by Yang, Lau.<sup>44</sup> This scale was divided into two dimensions: co-worker guanxi and supervisor-subordinate guanxi (4 items for each dimension). A sample item is "I participate in company-organized events with colleagues". The Cronbach's alpha coefficient for the scale was 0.76.

Employee low-carbon behavior. Employee low-carbon behavior was measured using the 7-item scale from Robertson, Barling.<sup>55</sup> (1)"I try to print on both sides"; (2) "I put compostable things in a compost bin"; (3) "I put recyclable materials (such as cans, paper, bottles, batteries) in a recycling bin"; (4) "I bring reusable utensils (such as travel coffee cups, water bottles, reusable containers, reusable utensils)"; (5) "I turn off the lights when not in use"; (6) "I participate in environmental projects (such as Bike/Walk to Work Day, Pack Your Lunch Day)", and (7) "I make recommendations to managers and/or environmental committees on environmentally friendly practices in an effort to improve the environmental performance of my organization". The Cronbach's alpha coefficient for the scale was 0.82.

Control variables. Considering that gender, work position, and education level are related to employee low-carbon behavior,<sup>56</sup> we include them as control variables.

### Results

Because of the large number of parameters, we employed item parceling for each measurement as it can improve variable-to-sample size ratio and reduce model complexity.<sup>57</sup> In effect, the item parceling approach is widely utilized in HRM research, for example, Frenkel, Li, Restubog.<sup>58</sup> Following Wilkinson,<sup>59</sup> we adopted random parceling for all the variables (all measurements were parceled into two parcels). In doing so, we aim to ensure estimation stability and improve scale communality.<sup>59</sup> More specifically, the new items of Taoism were parcel\_1 and parcel\_2, both of which were composed of three items. The new items of functional values of perceived values were parcel\_3 and parcel\_4, both of which were composed of three items. The new items of the overall value of perceived value were parcel\_5 and

parcel\_6, which were composed of three items and two items, respectively. The new items of emotional values of perceived values were parcel\_7 and parcel\_8, both of which were composed of two items. The new items of co-worker guanxi were parcel\_9 and parcel\_10, and the new items of supervisor-subordinate guanxi were parcel\_11 and parcel\_12, all of which were composed of two items. The new items of employee low-carbon behavior were parcel\_13 and parcel\_14, which were composed of four items and three items, respectively.

### Common Method Variance

Following Podsakoff, MacKenzie, Lee, Podsakoff,<sup>60</sup> we adopted two methods to test for common method variance (CMV). First, we deployed Harman's single factor test to diagnose the potential influence of CMV. The result showed that the first factor explains only 29.71% (< 50%) of the total variance, indicating that CMV in our data was limited. Second, we deployed the unmeasured latent method factor technique recommended by Podsakoff, MacKenzie, Lee, Podsakoff.<sup>60</sup> More specifically, we added an unmeasured latent factor to the original measurement model. We allowed all of the measurement items to load onto their theoretical factor and also onto the unmeasured latent factor. We compared our original measurement model and the new latent factor model to see if introducing the unmeasured latent factor would significantly change the model fit. Following Alfes, Truss, Soane, Rees, Gatenby,<sup>61</sup> we tested the change of comparative fit index (CFI) values for both models to check the model fit differences. The change of CFI value for both models was only 0.041, which is less than the rule of thumb of 0.05 (Alfes, Truss, Soane, Rees, Gatenby.<sup>61</sup> To sum up, these results indicate that CMV is not a serious concern in our study.

# **Confirmatory Factor Analysis**

The confirmatory factor analysis was adopted via AMOS 23 to examine the construct validity. Several scholars have also adopted this approach. For example Zhang, Liu.<sup>62</sup> The hypothesized four-factor CFA yielded an acceptable fit to our data: CMIN = 184.408, df = 56, root mean square error of approximation (RMSEA) = 0.07, Tucker Lewis Index (TLI) = 0.95, Comparative Fit Index (CFI) = 0.96. Alternative models yielded a poorer fit to the data. For example, a three-factor model combining perceived value and guanxi resulted in a poor fit (CMIN=650.353, df=74, RMSEA = 0.10, TLI = 0.89, and CFI = 0.91); as did a two-factor model (CMIN=759.222, df=76, RMSEA = 0.11, TLI = 0.87, and CFI = 0.89). Finally, a single-factor model (Taoism, perceived value, guanxi and employee low-carbon behavior were all loaded onto a single factor) yielded a very poor fit to our data (CMIN=184.408, df=56, RMSEA = 0.11, TLI = 0.86, and CFI = 0.88; see Table 1).

As indicated in Table 2, the composite reliability (CR) value of each variable is higher than the threshold of 0.7.<sup>63,64</sup> The average variance extracted (AVE) values are all greater than 0.5.<sup>64</sup> In addition, the square root of AVE is greater than the inter-construct correlations. To summarize, these results support convergent validity and discriminant validity in our research.

# **Descriptive Statistics**

Descriptive statistics and correlations among the study variables are presented in Table 3. Taoism is positively and significantly associated with employee low-carbon behavior (r = 0.553, p < 0.01), functional value (r = 0.518, p < 0.01), and co-worker guanxi (r = 0.496, p < 0.01). In addition, co-worker guanxi is positively correlated with employee low-carbon behavior (r = 0.577, p < 0.01). Functional value is positively related to employee low-carbon behavior (r = 0.757, p < 0.01). These results are in line with our expectations. The results demonstrate that there is a medium-high degree of

	CMIN/df	GFI	IFI	TLI	CFI	RMSEA
Single-factor model: T+PR+GX+EGB	10.574	0.854	0.882	0.860	0.882	0.110
Two-factor model: T+PR, GX+EGB	9.990	0.861	0.890	0.869	0.890	0.107
Three-factor model: T, PR+GX, EGB	8.789	0.875	0.908	0.886	0.907	0.099
Hypothesized four-factor model: T, PR, GX, EGB	4.429	0.947	0.961	0.950	0.961	0.066

Table	I	Model	Fit	Statistics
-------	---	-------	-----	------------

Abbreviations: T, Taoism; PR, perceived value; GX, guanxi; EGB, employee green behavior.

	ltems	Factor Loading	CR	AVE
Taoism	Parcel_I	0.934	0.848	0.738
	Parcel_2	0.777		
Functional value	Parcel_3	0.908	0.905	0.827
	Parcel_4	0.911		
Overall value	Parcel_5	0.884	0.859	0.752
	Parcel_6	0.851		
Emotional value	Parcel_7	0.864	0.862	0.758
	Parcel_8	0.877		
Co-worker guanxi	Parcel_9	0.880	0.872	0.773
	Parcel_10	0.879		
Supervisor-subordinate guanxi	Parcel_11	0.905	0.850	0.740
	Parcel_12	0.813		
Employee Low-carbon behavior	Parcel_13	0.926	0.917	0.846
	Parcel_14	0.914		

Table 2 Reliability and Validity Summ
---------------------------------------

Table 3 Descriptive Statistics, Correlation and Discriminant Validity

	Mean	SD	I	2	3	4	5	6	7
I. Taoism	3.600	0.596	0.859						
2. Functional value	3.924	0.618	0.518**	0.909					
3. Overall value	3.894	0.603	0.525**	0.810**	0.867				
4. Emotional value	3.897	0.626	0.504**	0.791**	0.77 <b>9</b> **	0.871			
5. Co-worker guanxi	3.714	0.663	0.496**	0.624**	0.575**	0.583**	0.879		
6. Supervisor-subordinate guanxi	3.579	0.728	0.395**	0.405**	0.446**	0.444**	0.659**	0.860	
7. Employee Low-carbon behavior	4.708	0.721	0.553**	0.757**	0.726**	0.695**	0.577**	0.407**	0.920

Notes: \*\*At the 0.01 level (two-tailed), the correlation is significant. The diagonal is the square root of AVE.

positive correlation between the variables. Hence, we employed the collinearity statistics test to see whether there is a multicollinearity issue. As shown in Table 4, the variance inflation factor (VIF) of all paths is less than 5.<sup>65,66</sup> Therefore, we believe that the multicollinearity problem may not significantly influence our findings.

Hypotheses and Path		р	Confidence Interv	VIF	
			Lower	Upper	
HI: Taoism -> Employee low-carbon behavior	0.179	0.000	0.117	0.249	1.671
H2a: Taoism -> Functional value	0.570	0.000	0.511	0.620	1.000
H2b: Taoism -> Overall value	0.579	0.000	0.525	0.630	1.000
H2c: Taoism -> Emotional value	0.545	0.000	0.481	0.603	1.000
H3a: Functional value -> Employee low-carbon behavior	0.339	0.000	0.241	0.433	3.997
H3b: Overall value -> Employee low-carbon behavior	0.217	0.000	0.136	0.297	3.702
H3c: Emotional value -> Employee low-carbon behavior	0.110	0.031	0.010	0.206	3.288
H5a: Taoism -> Co-worker guanxi	0.515	0.000	0.454	0.569	1.000
H5b Taoism -> Supervisor-subordinate guanxi	0.410	0.000	0.344	0.473	1.000
H6a: Co-worker guanxi-> Employee low-carbon behavior	0.086	0.022	0.013	0.164	2.425
H6b: Supervisor-subordinate guanxi -> Employee low-carbon behavior	-0.003	0.942	-0.08 I	0.068	1.827

#### Table 4 Summary of Direct Effects

# Hypothesis Testing

In this study, we examined our hypotheses with structural equation model (SEM), using SmartPLS software. We deployed 5000 bootstraps and a 95% bias-corrected confidence interval to examine the effects.<sup>67</sup>

As shown in Figure 2, in this model, the employee low-carbon behavior adjustment R square is 0.646, illustrating that the employee low-carbon behavior explained variance is 64.6%. The supervisor-subordinate guanxi adjustment R square is 0.167, illustrating that the supervisor-subordinate guanxi explained variance is 16.7%. The co-worker guanxi adjustment R square is 0.265, illustrating that the co-worker guanxi adjustment explained variance is 26.5%. The emotional value adjustment R square is 0.296, indicating the emotional value explained variance is 29.6%. The overall value adjustment R square is 0.334, indicating an overall value variance of 33.4%, and the functional value adjustment R square is 0.324, explaining the variance of 32.4%.

As shown in Table 4, hypotheses H1 proposes that Taoism has a positive effect on employee low-carbon behavior. The effect of Taoism on employee low-carbon behavior has values of 0.179 (p < 0.001). Hypotheses H2a, H2b, and H2c propose that Taoism has a positive effect on functional value ( $\beta = 0.570$ , p < 0.001), overall value ( $\beta = 0.579$ , p < 0.001), and emotional value ( $\beta = 0.545$ , p < 0.001), respectively. To sum up, this study found that Taoism positively affects perceived value. Therefore, hypothesis H2 is supported.

Hypotheses H3a, H3b, and H3c propose that functional, overall, and emotional perceived value have a positive effect on employee low-carbon behavior. The effects of these factors on employee low-carbon behavior have values of 0.339 (p < 0.001), 0.217 (p < 0.001) and 0.110 (p < 0.05), respectively. To sum up, this study concludes that perceived value positively affects employee low-carbon behavior. Hence, hypothesis H3 is supported.

Hypotheses H5a and H5b propose that Taoism has a positive effect on co-worker guanxi ( $\beta = 0.515$ , p < 0.001) and supervisor-subordinate guanxi ( $\beta = 0.410$ , p < 0.001). To sum up, this study concludes that Taoism positively affects guanxi. Therefore, hypothesis H5 is supported.

Hypotheses H6a and H6b propose that co-worker guanxi has a positive effect on employee low-carbon behavior ( $\beta = 0.086, p < 0.05$ ). However, supervisor-subordinate guanxi has no negative effect on employee low-carbon behavior ( $\beta = -0.003, p > 0.05$ ). Therefore, hypothesis H6 is only partially supported.

As shown in Table 5, hypotheses H4a, H4b, and H4c propose that Taoism positively affects employee low-carbon behavior through functional value, overall value, and emotional value of perceived value, respectively. Its indirect effect value is 0.193 (p < 0.001), 0.126 (p < 0.001), and 0.060 (p < 0.05), respectively. Thus, Taoism positively affects employee low-carbon behavior through perceived value, and hypothesis H4 is supported.

Hypothesis H7a, the indirect effect of Taoism on employee low-carbon behavior through co-worker guanxi, has an indirect effect value of 0.044 (p < 0.05). However, in Hypotheses H7b, the indirect effect of Taoism on employee low-carbon behavior



Notes: \**p* <0.05; \*\*\**p* < 0.001.

Figure 2 SmartPLS path.

#### Table 5 Summary of Indirect Effects

Effect	Path	Beta	p-value	Confidence Intervals Bias Corrected		
			Lower	Lower		
Indirect effects	Taoism -> Functional value -> Employee low-carbon behavior	0.193	0.000	0.130	0.252	
	Taoism -> Overall value -> Employee low-carbon behavior	0.126	0.000	0.078	0.175	
	Taoism -> Emotional value -> Employee low-carbon behavior	0.060	0.036	0.005	0.118	
	Taoism -> Co-worker guanxi -> Employee low-carbon behavior	0.044	0.024	0.007	0.085	
	Taoism -> Supervisor-subordinate guanxi -> Employee low-carbon behavior	-0.001	0.943	-0.032	0.029	

through supervisor-subordinate guanxi is not significant with an indirect effect value of -0.001 (p > 0.05). Therefore, hypothesis H7 is only partially supported.

# Discussion

### Theoretical Implications

This research makes three main contributions. First, our study explains the effect of Taoism on employee low-carbon behavior based on the SCT theory. This can mark a departure from previous studies on employee low-carbon behavior, which primarily adopted employee-organization fit theory to elucidate the *organization*-related antecedents of employee low-carbon behaviors eg.<sup>19,68</sup> Relatedly, our research is among the first to identify the role of *individual*-related antecedent (Taoism) in shaping employee low-carbon behavior. We revealed that Taoism has a positive impact on employee low-carbon behavior. Indeed, as a key cultural value rooted in the traditional Chinese society, Taoism still has a lingering influence on employees' attitudinal and behavioral outcomes in the contemporary workplaces (Zu, 2019). Our research findings add to this line of literature indicating that Taoism acts as a micro-foundation for sustainability, which will enhance employee low-carbon behavior.

Second, our study demonstrated that perceived value mediates the relationship between Taoism and employee low-carbon behavior. Few studies have investigated the mediating mechanisms that link Taoism to employee low-carbon behavior. Our study showed that Taoism facilitates employee low-carbon behavior by improving employees' perceived value to the products or services. This finding lends support to the prevalent belief that Taoism encourages employee proenvironment attitudes and behaviors.<sup>21</sup> Perceived value in this research has three distinct but interrelated components: the functional value, overall value, and emotional value. We found that the higher the functional value, overall value, and sentimental value of the company's products, the higher the employee low-carbon behavior. In fact, perceived value is a similar construct with customer value<sup>69</sup> at least in part because employees are regarded as internal customers of enterprises.<sup>33</sup> As such, our result echoes previous research showing that perceived value can reinforce customer satisfaction, life satisfaction, and pro-environment behavior,<sup>70,71</sup> culture influences perceived service quality.<sup>36</sup> We revealed that the path "Taoism  $\rightarrow$  Emotional value  $\rightarrow$  Employee low-carbon behavior" is not very significant. A plausible interpretation is that the association between Taoism and employee low-carbon behavior may also be direct, without activating employees' emotional values or mindsets. This is consistent with prior research illuminating that green HRM may directly influence employee workplace green behavior.<sup>56</sup>

Third, the current study extends the employee low-carbon behavior literature by establishing a dual-pathway model in which Taoism at work may shape employee low-carbon behavior via two mechanisms. As discussed before, the first one is an attitudinal mechanism (the mediating role of perceived value). Based on SCT, we also offered empirical evidence of the second mediation process between Taoism and employee low-carbon behavior (the mediating role of co-worker guanxi). Our finding is in line with prior studies, such as Taormina and Gao (2010) reporting that Chinese values (eg, Taoism in our study) have a positive influence on guanxi. In addition,<sup>47</sup> eloquently claimed that the vital and indispensable values of Taoism, such as "Wu Wei" and "Yin Yang" may exert strong effect on guanxi. In fact, when employees observe their close friends or colleagues engaging in certain behavior patterns (pro-environmental behaviors in our study), they tend to follow these behaviors in order to build and strengthen their relationships/guanxi.<sup>72</sup> The dual-

pathway model is important in that it can offer a fine-grained understanding of the social (guanxi) and psychological (perceived value) mechanisms whereby Taoism impacts employee pro-environment behavior. It is important to note that in our study, supervisor-subordinate guanxi does not mediate the relationship between Taoism and employee low-carbon behavior as supervisor-subordinate guanxi has no impact on employee low-carbon behavior. This result is consistent with previous research indicating that supervisor-subordinate guanxi might not significantly influence employees' behavior.<sup>73</sup> Previous studies have confirmed that supervisor-subordinate guanxi was positively associated with employee innovation behavior. Therefore, follow-up research can consider the employee green innovation behavior.<sup>74</sup> The divergent roles of co-worker guanxi and supervisor-subordinate guanxi can open up a promising avenue for future studies.

# **Practical Implications**

Our research provides several practical implications for management. First, our findings reveal that Taoism can promote employee low-carbon behaviors. We suggest that managers should encourage their employees to harmonize themselves with nature and treasure natural simplicity in desires.<sup>21</sup> For instance, training programs may be offered to motivate employees to realize the value of protecting nature. When hiring employees, HR managers ought to evaluate applicants' pro-environmental beliefs. Second, our findings demonstrate that when employees have a high level of co-worker guanxi, they are more likely to engage in green behavior. In order to improve employees' relationships with their co-workers, organizations may establish an employee-friendly workplace and foster a cooperative culture. Third, we found that employee's positive assessment of their company's products or services (high perceived value) could lead to employees' pro-environmental behaviors. This suggests that the organization should provide cost-effective products/services. Indeed, the Chinese government has recently pledged that its carbon emissions would reach zero and become carbon neutral by 2060.<sup>2</sup> Therefore, it is important for organizations to focus on sustainable products that are designed to minimize environmental degradation.

# Limitations and Future Research Direction

We acknowledge that there are several limitations of this research. First, our findings could be inflated because we used the self-evaluation data collected at a single point of time. However, we have deployed a couple of methods (eg, Harmen's single factor test and the unmeasured latent factor method) to ensure that common method bias may not invalidate our research findings. Future research, therefore, should use multi-wave (longitudinal) data to identify the cause-effect association. Second, the current research reveals that the Beta values of paths "Taoism -> Emotional value -> Employee low-carbon behavior" and "Taoism -> Co-worker guanxi -> Employee low-carbon behavior" are very low. This indicates that there are several omitted mediators beyond perceived value and guanxi. We, thus, expect future research to identify other mediating variables that are at play between Taoism and employee low-carbon behavior. Third, this quantitative research used existing scales to measure all of the variables. Future research should adopt qualitative methods or a mixed-method approach to capture novel components of Taoism and employee low-carbon behavior. Fourth, there is a wide range of cultures rooted in contemporary Chinese workplaces. In this regard, follow-up studies can focus on other philosophical ideas, such as Mohism<sup>14</sup> or Confucianism<sup>75</sup> to examine the relationship between cultural values and employee low-carbon behavior.

# Conclusion

This study examines the influence of Taoism (an individual-level cultural value) on employee low-carbon behavior in the Chinese context. Our results confirm the direct positive effect of Taoism on employee low-carbon behavior and the partial mediating effects of perceived value and co-worker guanxi. However, supervisor-subordinate guanxi does not mediate the relationship between Taoism and employee low-carbon behavior. These findings have important implications for the psychosocial pathway linking Taoism with low-carbon behavior.

# **Data Sharing Statement**

Data and other materials related to this research will be provided to qualified researchers on request.

Zhang et al

This study was conducted in accordance with the Declaration of Helsinki, and the study has been reviewed and approved by the ethics committee of Guangxi Normal University. All participants read and signed a consent form before they participated in the study.

# Acknowledgment

Chih-Cheng Fang passed away on September 8, 2021. He had an important role in developing the ideas in this paper. Chih-Cheng Fang profound impact on the OB field will be long lasting, and his work will continue to inspire us.

# Funding

This work was supported by Guangxi Promotion Project for Young and Middle-Aged Teachers in University, Research on the influencing factors and management countermeasures of employees' low-carbon behavior in Guangxi enterprises, grant number 2022KY0019; Scientific Research Funding Project of Zhujiang-Xijiang Economic Belt Development Research Institute, a key research base of Humanities and Social Sciences in Guangxi Universities, grant number RZ2200003968; Project of Guangxi Social Science Think Tank in 2022, grant number Zkzxkt202208.

# Disclosure

The authors have no relevant financial or non-financial conflicts of interest for this work to disclose.

# References

- 1. Ren S, Tang G, Jackson SE. Effects of Green HRM and CEO ethical leadership on organizations' environmental performance. *Int J Manpow*. 2020;42(6):961–983. doi:10.1108/IJM-09-2019-0414
- 2. Myers SL. China's Pledge to Be Carbon Neutral by 2060: What It Means. The New York Time; 2020.
- 3. Ren S, Jiang K, Tang G. Leveraging green HRM for firm performance: the joint effects of CEO environmental belief and external pollution severity and the mediating role of employee environmental commitment. *Hum Resour Manage*. 2021;60(1):75–90.
- Bonn MA, Chun Y, Yoo JJE, Cho M. Green purchasing by wine retailers: roles of individual values, competences and organizational culture. Cornell Hosp Q. 2021;62(3):324–336. doi:10.1177/1938965520978166
- 5. Rubel MRB, Kee DMH, Rimi NN. The influence of green HRM practices on green service behaviors: the mediating effect of green knowledge sharing. *Empl Relat.* 2021;43(5):996–1015. doi:10.1108/ER-04-2020-0163
- Norton TA, Zacher H, Parker SL, Ashkanasy NM. Bridging the gap between green behavioral intentions and employee green behavior: the role of green psychological climate. J Organ Behav. 2017;38(7):996–1015. doi:10.1002/job.2178
- Zhang JW, Ul-Durar S, Akhtar MN, Zhang YJ, Lu L. How does responsible leadership affect employees' voluntary workplace green behaviors? A multilevel dual process model of voluntary workplace green behaviors. *J Environ Manage*. 2021;296:113205. doi:10.1016/j.jenvman.2021.113205
- 8. Cho M, Yoo JJ-E. Customer pressure and restaurant employee green creative behavior: serial mediation effects of restaurant ethical standards and employee green passion. *Int J Contemp Hosp Manag.* 2021;33(12):4505–4525.
- 9. Kim M, Lee SM. Drivers and interrelationships of three types of pro-environmental behaviors in the workplace. Int J Contemp Hosp Manag. 2022;34(5):1854–1881. doi:10.1108/IJCHM-09-2021-1094
- 10. Ren S, Tang G, Kim A. OCB-E among Chinese employees of different contract types. Empl Relat. 2020;44(3):1-20.
- 11. Shantz A, Arevshatian L, Alfes K, Bailey C. The effect of HRM attributions on emotional exhaustion and the mediating roles of job involvement and work overload. *Hum Resour Manag J.* 2016;26(2):172–191. doi:10.1111/1748-8583.12096
- 12. Whetten DA. What constitutes a theoretical contribution? Acad Manage Rev. 1989;14(4):490-495. doi:10.2307/258554
- 13. Lin L-H, Ho Y-L, Lin W-HE. Confucian and Taoist work values: an exploratory study of the Chinese transformational leadership behavior. *J Bus Ethics*. 2013;113(1):91–103. doi:10.1007/s10551-012-1284-8
- 14. Zhou Y, Kim S, Rui D. Chivalrous idealist and pragmatic strategist: the influence of Mohist values on Ma Yun's leadership in China. Asia Pac Bus Rev. 2019;25(2):273–287. doi:10.1080/13602381.2018.1548546
- 15. Rowley C, Oh I. Trends in Chinese management and business: change, Confucianism, leadership, knowledge & innovation. Asia Pac Bus Rev. 2020;26(1):1–8. doi:10.1080/13602381.2019.1698707
- 16. Atherton A. Does Confucian management exist in Chinese companies? An examination of the intersection between cultural influence and business practice in China. *Asia Pac Bus Rev.* 2020;26(1):21–31. doi:10.1080/13602381.2018.1527005
- 17. Liu L, Zhang C. Cyberloafing at the workplace: effect of Zhong-Yong thinking on mental health and mindfulness as a moderating role. *Chin Manag Stud.* 2022. doi:10.1108/CMS-09-2021-0381
- 18. Zhang C, Chen C. The effect of Zhong-yong thinking to employee survival ability: taking Chinese employees as an example. *Int J Sociol Soc Policy*. 2020;40(11/12):1319–1336. doi:10.1108/JJSSP-02-2020-0038
- 19. Xiao J, Mao J-Y, Huang S, Qing T. Employee-organization fit and voluntary green behavior: a cross-level model examining the role of perceived insider status and green organizational climate. *Int J Environ Res Public Health*. 2020;17(7):2193. doi:10.3390/ijerph17072193
- 20. Wood R, Bandura A. Social cognitive theory of organizational management. Acad Manage Rev. 1989;14(3):361-384. doi:10.2307/258173
- 21. Xing Y, Starik M. Taoist leadership and employee green behaviour: a cultural and philosophical microfoundation of sustainability. *J Organ Behav.* 2017;38(9):1302–1319. doi:10.1002/job.2221

- 22. Guo X, Krempl S, Marinova D. Economic prosperity and sustainability in China: seeking wisdom from Confucianism and taoism. In: *Technology, Society and Sustainability*. Springer; 2017:263–273.
- 23. Zehua L. The unity of Heaven and men, and China's Monarchism. Contemp Chin Thought. 2013;45(2-3):89-116. doi:10.2753/CSP1097-1467450204
- 24. Zhang Y, Zhang H-L, Zhang J, Cheng S. Predicting residents' pro-environmental behaviors at tourist sites: the role of awareness of disaster's consequences, values, and place attachment. *J Environ Psychol*. 2014;40:131–146. doi:10.1016/j.jenvp.2014.06.001
- 25. Zeng S, Wu L, Liu T. Religious identity and public pro-environmental behavior in China: the mediating role of environmental risk perception. *Religions*. 2020;11(4):165. doi:10.3390/rel11040165
- 26. Li J, Mao P, Liu H, Wei JW, Li HY, Yuan JF. Key Factors Influencing Low-Carbon Behaviors of Staff in Star-Rated Hotels—An Empirical Study of Eastern China. Int J Environ Res Public Health. 2020;17(21):8222. doi:10.3390/ijerph17218222
- 27. Lamm E, Tosti-Kharas J, Williams EG. Read this article, but do not print it: organizational citizenship behavior toward the environment. *Group* Organ Manag. 2013;38(2):163–197. doi:10.1177/1059601112475210
- 28. Chen WY, Cao C, Fang XP, Kang ZX. Expanding the theory of planned behaviour to reveal urban residents' pro-environment travel behaviour. *Atmosphere*. 2019;10(84):467. doi:10.3390/atmos10080467
- 29. Xue LL, Chang YR, Shen CC. The sustainable development of organic agriculture-tourism: the role of consumer landscape and pro-environment behavior. *Sustainability*. 2020;12(15):6264. doi:10.3390/su12156264
- 30. Zeithaml VA. Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence. J Mark. 1988;52(3):2-22. doi:10.1177/002224298805200302
- 31. Konuk FA. The role of store image, perceived quality, trust and perceived value in predicting consumers' purchase intentions towards organic private label food. *J Retail Consum Serv.* 2018;43:304–310. doi:10.1016/j.jretconser.2018.04.011
- 32. Sweeney JC, Soutar GN. Consumer perceived value: the development of a multiple item scale. J Retail. 2001;77(2):203-220. doi:10.1016/S0022-4359(01)00041-0
- 33. Day GS, Wensley R. Marketing theory with a strategic orientation. J Mark. 1983;47(4):79-89. doi:10.1177/002224298304700409
- 34. Lee C-K, Yoon Y-S, Lee S-K. Investigating the relationships among perceived value, satisfaction, and recommendations: the case of the Korean DMZ. *Tour Manag.* 2007;28(1):204–214. doi:10.1016/j.tourman.2005.12.017
- 35. Shao W, Perkins H. Taoist and Confucian values evident in the travel motivations of contemporary Chinese tourists: the importance of selfcultivation. J China Tour Res. 2017;13(3):276-297. doi:10.1080/19388160.2017.1397579
- 36. Ladhari R, Pons F, Bressolles G, Zins M. Culture and personal values: how they influence perceived service quality. J Bus Res. 2011;64(9):951–957. doi:10.1016/j.jbusres.2010.11.017
- 37. Ma Y, Wang H, Kong R. The effect of policy instruments on rural households' solid waste separation behavior and the mediation of perceived value using SEM. *Environ Sci Pollut Res.* 2020;27(16):19398–19409. doi:10.1007/s11356-020-08410-2
- Qu YE, Dasborough MT, Zhou M, Todorova G. Should authentic leaders value power? A study of leaders' values and perceived value congruence. J Bus Ethics. 2019;156(4):1027–1044. doi:10.1007/s10551-017-3617-0
- 39. Graves LM, Sarkis J, Zhu Q. How transformational leadership and employee motivation combine to predict employee proenvironmental behaviors in China. J Environ Psychol. 2013;35:81–91. doi:10.1016/j.jenvp.2013.05.002
- 40. Bissing-Olson MJ, Iyer A, Fielding KS, Zacher H. Relationships between daily affect and pro-environmental behavior at work: the moderating role of pro-environmental attitude. J Organ Behav. 2013;34(2):156–175. doi:10.1002/job.1788
- 41. Dieste M, Panizzolo R, Garza-Reyes JA, Anosike A. The relationship between lean and environmental performance: practices and measures. J Clean Prod. 2019;224:120–131. doi:10.1016/j.jclepro.2019.03.243
- 42. Fan Y. Questioning guanxi: definition, classification and implications. Int Bus Rev. 2002;11(5):543-561. doi:10.1016/S0969-5931(02)00036-7
- 43. Chen Y, Friedman R, Yu E, Fang W, Lu X. Supervisor–subordinate guanxi: developing a three-dimensional model and scale. *Manag Organ Rev.* 2009;5(3):375–399. doi:10.1111/j.1740-8784.2009.00153.x
- 44. Yang FX, Lau VM-C. Does workplace guanxi matter to hotel career success? Int J Hosp Manag. 2015;47:43-53. doi:10.1016/j.ijhm.2015.03.004
- 45. Clydesdale G. Western perceptions of Chinese Business: Sun Tzu and the misuse of history. *Manag Organ Rev.* 2017;13(4):895–903. doi:10.1017/mor.2017.58
- 46. Jing R, Van de Ven AH. A Yin-Yang model of organizational change: the case of Chengdu Bus Group. *Manag Organ Rev.* 2014;10(1):29–54. doi:10.1111/more.12045
- 47. Tian L, Ma Y, Wei H, Li Yuan. Knowing Guanxi from the perspective of Tao: a mixed methodological approach. *Chin Manag Stud.* 2015;9(4):626–647. doi:10.1108/CMS-07-2014-0125
- 48. Chumg H-F, Shi J-W, Sun K-J. Why employees contribute to pro-environmental behaviour: the role of pluralistic Ignorance in Chinese society. *Sustainability*. 2020;12(1):239. doi:10.3390/su12010239
- Lo M-C, Ramayah T, Min HW, Songan P. The relationship between leadership styles and organizational commitment in Malaysia: role of leadermember exchange. Asia Pac Bus Rev. 2010;16(1–2):79–103. doi:10.1080/13602380903355676
- Wang L, Wong PPW, Narayanan Alagas E, Chee WM. Green hotel selection of Chinese consumers: a planned behavior perspective. J China Tour Res. 2019;15(2):192–212. doi:10.1080/19388160.2018.1553743
- 51. Liu D, Bao Y, Wang G. Unpacking the relationship between formal contracts and alliance innovation performance: the role of relationship learning and guanxi. J Bus Ind Mark. 2021;37(3):564–577.
- 52. Saunders M, Lewis P, Thornhill A. Research Methods for Business Students. 5th ed. Harlow, England: Pearson Education; 2011.
- 53. Brislin RW. The wording and translation of research instruments. In: Lonner WJ, Berry JW, editors. Field Methods in Cross-Cultural Research Methods. Newbury Park: CA Sage; 1986.
- 54. Otterbring T, Folwarczny M. Firstborns buy better for the greater good: birth order differences in green consumption values. *Pers Individ Dif.* 2022;186:111353. doi:10.1016/j.paid.2021.111353
- 55. Robertson JL, Barling J. Greening organizations through leaders' influence on employees' pro-environmental behaviors. *J Organ Behav.* 2013;34 (2):176–194. doi:10.1002/job.1820
- 56. Dumont J, Shen J, Deng X. Effects of green HRM practices on employee workplace green behavior: the role of psychological green climate and employee green values. *Hum Resour Manage*. 2017;56(4):613–627. doi:10.1002/hrm.21792

- 57. Little TD, Cunningham WA, Shahar G, Widaman KF. To parcel or not to parcel: exploring the question, weighing the merits. *Struct Equ Modeling*. 2002;9(2):151–173. doi:10.1207/S15328007SEM0902 1
- Frenkel SJ, Li M, Restubog SLD. Management, organizational justice and emotional exhaustion among Chinese migrant workers: evidence from two manufacturing firms. Br J Ind Relat. 2012;50(1):121–147. doi:10.1111/j.1467-8543.2011.00858.x
- 59. Wilkinson WW. The structure of the Levenson locus of control scale in young adults: comparing item and parcel indicator models. *Pers Individ Dif.* 2007;43(6):1416–1425. doi:10.1016/j.paid.2007.04.018
- 60. Podsakoff PM, MacKenzie SB, Lee J-Y, Podsakoff NP. Common method biases in behavioral research: a critical review of the literature and recommended remedies. J Appl Psychol. 2003;88(5):879–903. doi:10.1037/0021-9010.88.5.879
- 61. Alfes K, Truss C, Soane EC, Rees C, Gatenby M. The relationship between line manager behavior, perceived HRM practices, and individual performance: examining the mediating role of engagement. *Hum Resour Manage*. 2013;52(6):839–859. doi:10.1002/hrm.21512
- 62. Zhang C, Liu L. The effect of job crafting to job performance. *Knowl Manag Res Pract.* 2021;19(2):253–262. doi:10.1080/14778238.2020.1762517 63. Bagozzi RP, Yi Y. On the evaluation of structural equation models. *J Acad Mark Sci.* 1988;16(1):74–94. doi:10.1007/BF02723327
- Fornell C, Larcker DF. Evaluating structural equation models with unobservable variables and measurement error. J Mark Res. 1981;18(1):39–50. doi:10.1177/002224378101800104
- 65. Kock N, Lynn G. Lateral collinearity and misleading results in variance-based SEM: an illustration and recommendations. J Assoc Inf Syst. 2012;13 (7):546–580. doi:10.17705/1jais.00302
- 66. Sheather S. A Modern Approach to Regression with R. New York, NY: Springer; 2009.
- 67. Davison AC, Hinkley DV. Bootstrap Methods and Their Application. Cambridge: Cambridge university press; 1997.
- 68. Zibarras LD, Coan P. HRM practices used to promote pro-environmental behavior: a UK survey. Int j Hum Resour Manag. 2015;26(16):2121–2142. doi:10.1080/09585192.2014.972429
- 69. Gallarza MG, Saura IG. Value dimensions, perceived value, satisfaction and loyalty: an investigation of university students' travel behaviour. *Tour Manag.* 2006;27(3):437–452. doi:10.1016/j.tourman.2004.12.002
- 70. Prebensen NK, Xie J. Efficacy of co-creation and mastering on perceived value and satisfaction in tourists' consumption. *Tour Manag.* 2017;60:166–176. doi:10.1016/j.tourman.2016.12.001
- 71. Welsch H, Kühling J. Pro-environmental behavior and rational consumer choice: evidence from surveys of life satisfaction. *J Econ Psychol.* 2010;31(3):405–420. doi:10.1016/j.joep.2010.01.009
- Kim A, Kim Y, Han K, Jackson SE, Ployhart RE. Multilevel influences on voluntary workplace green behavior: individual differences, leader behavior, and coworker advocacy. J Manage. 2017;43(5):1335–1358. doi:10.1177/0149206314547386
- 73. Guan X, Frenkel SJ. Explaining supervisor-subordinate Guanxi and subordinate performance through a conservation of resources lens. *Human Relat*. 2018;72(11):1–24.
- 74. Gao Y, Liu HY. How supervisor-subordinate guanxi influence employee innovative behavior: a moderated mediation model. Psychol Res Behav Manag. 2021;14:2001–2014. doi:10.2147/PRBM.S342875
- 75. Liu L, Zhang C. The effect of Confucianism on job crafting using psychological contract fulfilment as the mediating variable and distributive justice as the moderating variable. *Psychol Res Behav Manag.* 2022;15:353–365. doi:10.2147/PRBM.S343927

**Psychology Research and Behavior Management** 

#### **Dove**press

**Dove**Press

Publish your work in this journal

Psychology Research and Behavior Management is an international, peer-reviewed, open access journal focusing on the science of psychology and its application in behavior management to develop improved outcomes in the clinical, educational, sports and business arenas. Specific topics covered in the journal include: Neuroscience, memory and decision making; Behavior modification and management; Clinical applications; Business and sports performance management; Social and developmental studies; Animal studies. The manuscript management system is completely online and includes a very quick and fair peer-review system, which is all easy to use. Visit http://www.dovepress.com/testimonials.php to read real quotes from published authors.

Submit your manuscript here: https://www.dovepress.com/psychology-research-and-behavior-management-journal

f 🔰 in 🔼