

Article

Servant leadership, environmental passion and workplace green behavior in higher education institutions

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Abstract: Sketching on stimulus-organism-response theory, this study aims to investigate the mediating effect of environmental passion on the relationship of the environmentally specific servant leadership with employees' green behavior. Using purposive sampling approach, the authors adopted one month time-lagged approach to collected data from 232 academic employees in higher education institutions of China. Response rate in this study is 46.40%. The partial least-structural equation modeling (PLS-SEM) analysis was conducted in the smartpls 4.0 software to test the proposed hypotheses. The current empirical findings confirm that environmentally specific servant leadership significantly positively influence employee's environmental passion and environmental passion significantly positively affects the employee's workplace green behaviors. This current finding offered support in favor of mediating impact of environmental passion on the "environmentally specific servant leadership-employees workplace green behaviors" relationship. To the best of authors, this study is among pioneers' studies to investigate the integrated relationship of environmentally specific servant leadership, environmental passion and green behavior in higher education institutions context of China. Limitations and implication have been elaborated at the end.

Keywords: sustainable development; universities; top management; quantitative studies; sustainable leadership; environmental orientation; environmental performance

1. Introduction

At the international forum, both practitioners and academicians are raising voices related to the increasing carbon emission and average temperature on earth (Iqbal and Piwovar-Sulej, 2023b; Schmidt and Ockenfels, 2021). Numerous factors such as contaminated water, carbon emission, land deterioration, and polluted water has raised questions on the sustainability of our planet (Bulut 2021). Among countries, People's Republic of China is the top carbon emitting country and accounts for 31% of total greenhouse gas emission followed by United States of America (Xuecheng et al. 2022; Zhou et al. 2022). On the similar note, the higher education institutions (HEIs) has emerged as the top energy consumers in the public sector of China (Lin et al. 2022). Accordingly, there is utmost importance to transform such highly energy-consumption based campuses into green campuses (Sima et al. 2019). Along with these lines, the sustainable development goals (SDGs) of United Nations encourages HEIs management to promote pro-environmental friendly behaviors in their jurisdictions (Elfert, 2019; Iqbal and Piwovar-Sulej, 2022). Hence, it is obvious to observe the pressure faced by HEIs in order to cope with sustainability challenges and transformation needed at their end.

Not only the human activities are highly related to the increasing greenhouse gas emission and global warming index but individuals are also responsible for the intense climate changes. Accordingly, the promotion of green behaviors among HEIs employees emerges highly vital (Iqbal and Piwowar-Sulej 2022a, 2022b). Yet, environmental friendly behaviors are being practiced at the acceptable level in spite of their enhanced awareness among workforce (Bashirun et al., 2019; Wang et al., 2018; Wei et al., 2022). Extent literature has unraveled the role of numerous factors such as such as job satisfaction (Kim et al. 2019), pro-environmental attitude (Tian and Robertson, 2019), green organizational climates (Zientara and Zamojska, 2018), ethical leadership (Wood et al. 2021), social relationships (Robertson and Barling, 2013) spurring workplace green behaviors. In the presence of scat studies on workplace green behaviors, Aboramadan et al., (2021) has recommended to explore this arena in the HEIs context. While, Zheng et al., (2021) emphasized on the crucial role of organizational culture in workplace green behaviors phenomenon. Therefore, this study focuses on the workplace green behaviors among HEIs employees in China.

From the individual behavioral perspectives, mostly theories such as the norm activation model, the value-belief-norm theory and theory of planned behavior has underestimated the critical role of external stimuli. Nevertheless, the stimulus-organism-response (SOR) theory claims that external stimuli affects personal emotional and cognitive attributes which drive into their reactions (Kumar et al. 2021). Response (R) in the SOR theory concerns individuals psychological reactions in the shape of positive or negative attitudes or behaviors (Koo and Ju, 2010; Thang and Tan, 2003). Organism refers to individuals internal (both cognitive and affective) states and psychological experiences that works as a process between stimuli and personal reaction (Fang 2014). The SOR theory has been applied previously to explore the intricacy of human behaviors in decision-making (Vieira 2013) and low-carbon travel domain (Song et al. 2022). Individual psychological experience is highly interlinked with fluctuations in their internal states (Chen et al. 2021). In the environment management context, the psychological experience focuses on the employees attitudes and emotional inclinations towards nature and environment protection (Jang and Namkung, 2009; Yin et al., 2021). On this note, environmental passion concerns about eco-oriented, energy-filled positive emotion, feelings and inspirations among employees which drives individuals environmental friendly behaviors (Robertson and Barling, 2013; Tu et al., 2023). Moreover, the top management strategies decisions, strategic initiatives, collaborative efforts, decision making processes and organizational structures mandated the development of effective leadership to transform the HEIs (Szekely and Mason, 2019). Accordingly, the environmentally specific servant leadership is the demonstration of servant leadership with particular emphasis on the pro-environmental dynamics and interests (Luu, 2019). Environmentally specific servant leaders act altruistically and instill in their employees and mold their attitudes towards nature and environmental friendly (Zafar et al. 2022). Hence, the present study employs the environmentally specific servant leadership as a stimulus (S), environmental passion as an organism (O) and employee's workplace green behaviors as a response (R). Based on SOR theory, this study aims to examine the indirect effect of environmentally specific servant

leadership on the employee's green behavior through environmental passion in HEIs of China.

The current study offers numerous contributions to the leadership and environmental management literature. First, the present research enriches content on the SOR theory by offering empirical evidence related to mediating role of environmental passion as an internal state. Second, this study contributes to the leadership literature by examining the environmentally specific servant leadership as a stimulus to spur employees' green behavior. Third, no prior study has examined the integrated relationship of the environmentally specific servant leadership, environmental passion and employee's green behavior, this study is among pioneers to explore their role as stimulus and organism which spur individuals' behaviors. Fourth, by offering empirical evidence from HEIs in China, this research has also added to the empirical findings from a different country perspective.

2. Hypotheses development

2.1. Environmentally specific servant leadership and environmental passion

According to Xuecheng and Iqbal (2022), leaders play vital role in developing green citizens through motivational process. Leaders also affect procedures embedded in employee's personality. In the presence of supportive and autonomous work environment, if created by top management, individuals may have high level of work passion either harmonious or productive (Iqbal and Piwovar-Sulej, 2023a). As environmentally specific servant leadership (ESSL) prefer environmental values over monetary rewards for themselves and organizations, they would always emphasize on the promotions of green values among employees (Afsar et al. 2016). Not only, ESSL act as an exemplary leader by exhibiting strong pro-environmental beliefs and dedication to green targets but also offers support and guidance to employees and other stakeholders in order to assure environmental sustainability (Luu, 2019). ESSL are in favor of the harmonious and balanced relationship with society, nature and human beings and discourages the behavior that would weaken such linkages (Ma and Tsui, 2015). The environmental passion comes out of the harmonious passion theory under the sustainable development umbrella, which refers to affirmative sentiments among employees to engage in environmental friendly activities (Robertson and Barling, 2013).

In relation to the SOR theory, ESSL the environmental concerns on the behalf of ESSL may emerge as a motivational activity on the direct linkage of leadership with employees that is vital to persuade the harmonious environmental passion among individuals (Tian and Robertson, 2019). ESSL exhibit their green management related decisions and beliefs to their employees through exemplary pro-environmental oriented activities. Employees get motivation and learn from environmental friendly attitudes and activities of such leaders (Aboramadan et al. 2021). ESSL also involve and promote eco-friendly intellectual stimulation which encourage employees to get into environmental conservation activities. The ignition

of inspiration among employees drive their enthusiasm towards firms environmental performance (Xia et al. 2022).

ESSL also exhibits emotional support to employees which is equally good for arousal of their passion which has utmost importance towards their pro-environmental behaviors (Judge and Piccolo, 2004). Moreover, in case top management do not lead from the front the pro-environmental practices, employees are less likely to follow their directions related to environmental concerns (Zientara and Zamojska, 2018).

The social relationship also significantly drives individuals' environmental passion. Within organizations, interpersonal relationship are positively related to the environmental passion (Petitta and Jiang, 2020). ESSL offers a shared spirit of environmental conservation to employees and ensures their participation by leading in environmental management initiatives (Peng et al. 2023). By offering such support and guidance, ESSL ensures that employees feel comfortable to integrate external demands along with their internal sentiments, which is viewed as the foundation for environmental passion (Iqbal and Piwovar-Sulej 2023c). Based on these justifications, following hypothesis is developed.

H1. Environmentally specific servant leadership positively affects environmental passion.

2.2. Environmental passion and workplace green behavior

Individuals' affection inspires and encourage their enthusiastic engagement and commitment in specific activities (Vallerand et al. 2007). According to Yuan and Woodman, (2010), the environmental passion is mandated for employees to carry on eco-friendly workplace activities. Environmental passion also keeps employees inspired and vigorous in the presence of limited resources (Li, 2020). The environmental passion is viewed as a pleasant feeling that is possible to inspire and promote employees' green behaviors (Robertson and Barling, 2013). Environmental passion, a form of affection and positive feelings, helps employees to get engaged in the challenging tasks (Perrewé et al. 2013) and participate in eco-friendly workplace behavior (Iqbal and Piwovar-Sulej, 2023b; Wang et al., 2021). The Passion to work in a certain style or manners means that enthusiasm towards environment could encourage employees to behave environmental friendly (Saifulina et al. 2023). Therefore, following hypothesis is developed.

H2. Environmental passion positively affects employees' workplace green behavior.

2.3. The mediating role of environmental passion

Environmental passion is a form of positive feelings which ignites eagerness among individuals to involve into environmental friendly activities (Robertson and Barling, 2013). With such pleasant feelings towards environment, employees bring changes for social sustainable development (Wang et al., 2021). As environmental passion discloses the employees awareness towards environmental management, it is viewed as positive eco-related emotion in the sustainable development context (Robertson and Barling, 2013).

ESSL offers supports to employees by ensuring open communications, sharing sustainable vision, and arousing environmental awareness (Aboramadan et al. 2021). According to Iqbal et al. (2022), such type of leaders prioritize environmental benefits over economic performance. Therefore, employees treat them highly exemplary and try to learn from their practices. Such relationship between ESSL and their employees is likely to activate employees' environmental passion and create inner expectations conducive to sustainable development (Zafar et al. 2022).

According to Grant and Ashford, (2008), the initiation is a source of psychological process and the positive affect provokes employees to indulge in active behaviors (Parker and Collins, 2010).

ESSL may transmit their determination and enthusiasm towards nature conservation to their employees by showing exemplary behaviors which helps them to ignite environmental enthusiasm among employees which results into their enhanced eco-friendly behaviors (Tu et al. 2023).

Having ESSL as an exemplary leader, employee's environmental passion offer themselves contentment and encourage them to promote sustainable activities. In the presence of ESSL, employees may feel more encouraged and motivated to cope with challenges in the way of green behaviors at workplace (Begum et al., 2020; Wang et al., 2021). On the basis of SOR theory, the employees feel enhanced awareness and motivated and possesses ample environmental passion in the presence of interpersonal relationship (Petitta and Jiang, 2020), to execute eco-friendly behaviors at workplace (Luu, 2019a). Hence, following hypotheses is developed.

H3. Environmental passion significantly mediates the relationship between environmentally specific servant leadership and employees' workplace green behavior.

3. Research methodology

Well known Chinese universities are located in top tier cities namely Shanghai, Beijing, Hangzhou, Shenzhen and Chengdu. These cities are equally famous among international students as well. Taking financial and time constraints, authors sought support from local academicians in these universities in order to collect data from academic staff of HEIs. In this study, the purposive (judgmental) sampling technique was employed to collect data from mid-level academic staff of HEIs in China. In this study, authors also ensured the ample sample size by running G*Power application which is used to determine the minimum number of responses mandatory for any study (Faul et al. 2009). The G*Power application mandated 77 as the minimum responses to offer robust reliable and valid empirical findings.

In current study, it was ensured that employees participate on volunteer basis. In addition, the procedural remedy was adopted to cope with potential common method bias. Therefore, data from academic staff of HEIs was collected in two phases with one-month time-lagged. As average response rate in social studies is 35.70% with $\pm 18.80\%$ as standard deviation (Baruch and Holtom, 2008), the authors initially shared survey form with 500 employees of HEIs in above mentioned five cities to rate environmental-specific servant leadership practices and environmental passion at time-I. As authors requested employees to only fill in the survey form and data is

analyzed anonymously, getting ethical approval from ethical review board is not justified here. Participants were also requested to check against their consent statement in the online link as well. In addition, participants were asked to write their initials at the survey end to ensure matching of responses at two phases. In return, authors received 334 filled survey form. After 30 days, authors again shared online link with all those who participated at time-I to evaluate their workplace green behavior. This time, only 237 responses were received. In order to avoid missing values, authors made it mandatory to check against each item in online survey link. After removal of the five invalid responses, 232 survey forms were ready for further analysis. Hence, the current response rate is 46.40% which is higher than the average response rates in social studies.

3.1. Measures

In this study, the authors adopted measurement scales of core constructs from past studies. As high cognitive burden and lower results quality is associated with higher Likert scale (Robinson 2018), the present study adopted five-point Likert scale to measure the environmentally-specific servant leadership, environmental passion and workplace green behavior.

Employees were asked to rate the environmentally-specific servant leadership practices based on 12-items scale of Luu, (2019). A sample item of this scale is “My supervisor cares about my eco-initiatives”. This study adopted 10-items scale of environmental passion from the study of Robertson and Barling, (2013). A sample item is “I take pride in helping the environment”. In current research, the authors adopted 07-items scale of employees’ workplace green behavior from Robertson and Barling’s (2013) study. A sample item of this scale is “I take part in environmentally friendly programs (e.g., bike/walk to workday, bring your own local lunch day)”.

As past studies concluded with positive impact of age, gender, working experience and education on employees behaviors (Graves et al. 2013), the authors assessed them as control variable in current setting.

3.2. Analytical strategy

In current study, the predictor (environmental-specific servant leadership), intervening variable (environmental passion) and outcome (workplace green behavior) all together make the proposed framework complex. In addition, the study objectives are predictive in its nature. Therefore, the partial least squares-structural equation modelling (PLS-SEM) analysis is the most suitable analytical strategy in this study (Ringle et al. 2020). PLS-SEM analysis evolves around evaluation of both measurement model and structural model in a research framework. Yet, it is mandatory to conduct measurement model analyses prior to the analyses of structural model. To examine the model fit, the authors adopted two index combination strategy of Hu and Bentler (1999).

4. Results

4.1. Data screening

During data screening process, missing values, outliers, data normality and common method bias presence were assessed. As it was mandated to check against every single question in the online survey form, there was no missing values. To determine the outliers, authors calculated Z-score and found no case with Z-score values higher than 2.68. Hence, there were no univariate outlier. In order to examine the multivariate outlier, we calculated the Mahalanobis distance test and found one case with its probability lower than 0.001, which was removed as being multivariate outlier.

While using Web Power statistical tool, authors examined the data normality. Skewness values of environmental-specific servant leadership (0.258), environmental passion (-0.088) and employees' workplace green behavior (-0.221) are below ± 3 . Similarly, their kurtosis values are also within the range of +3 and -3 which clearly indicates the univariate normality of the data (DeCarlo 1997). Skewness values of environmental-specific servant leadership (0.240), environmental passion (-0.222) and employees' workplace green behavior (-0.530) are within ± 3 . Similarly, their kurtosis values are also within the range of +3 and -3. Hence, it evident that the current dataset has univariate normality. On the other side, the Mardia's multivariate kurtosis value is the non-significant ($\beta = 15.389, \rho = 0.058 > 0.050$), which indicates the absence of multivariate normality. Authors conducted the Harman's one-factor test and found that first factor only counts 36.70% of total variations, which is lower than 50%. Thus, the Harman's single factor test confirmed the absence of common method bias. In order to examine the model fit, authors adopted the Hu and Bentler's (1999) two-index combination criteria i.e., the comparative fit index (CFI) ≥ 0.95 and standardized root mean square residual (SRMR) ≤ 0.09 . The proposed three factor (environmental-specific servant leadership, environmental passion, and employees' workplace green behavior) model emerged fit (CFI = 0.956 > 0.95 and SRMR = 0.063 < 0.09) as compared to alternative models.

4.2. Frequency analysis

In this study, male participations ($n = 147, 63.36\%$) dominate as compared to female employees ($n = 85, 36.64\%$). Mostly participants ($n = 128, 55.17\%$) fall in the age category of 36–45 years old followed by those ($n = 74, 31.89\%$) who are 25 – 35 years old. Only 12 participants have their age below 12 years. In current study, 18 employees with their age above 46 years also participated. Mostly participants of this study ($n = 118, 50.86\%$) possess master's degree followed by those ($n = 86, 37.07\%$) who have Bachelor as their highest qualification. Only 11 Participants (4.74%) have doctorate degree as well. In current work, most participants ($n = 128, 55.17\%$) have 11-15 years of working experience. 69 participants (29.74%) possess 5–10 years of working experience followed by those ($n = 26, 11.21\%$) who have more than 16 years of working experience. Highest participants comes from HEIs employees in Beijing ($n = 89, 38.36\%$) followed by those from Shanghai ($n = 77, 33.19\%$) and Chengdu ($n = 66, 28.45\%$). Least participation come from Shenzhen ($n = 49, 21.12\%$).

4.3. Descriptive analysis

In current research, employees rated environmental-specific servant leadership, environmental passion and employees’ workplace green behavior based on five-point Likert scale. According to Sekaran and Bougie, (2016), mean values of continuous variables ≤ 2.99 , in the range of 3 to 3.99 and ≥ 4.00 indicate their low, moderate and high level respectively. In present study, the environmental-specific servant leadership is being practiced at low level ($M = 2.983$). Nevertheless, mean values of environmental passion ($M = 3.130$), and employees’ workplace green behavior ($M = 3.297$) disclose their moderate presence in HEIs of China.

4.4. Measurement model results

By conducting measurement model analysis, authors examined the reliability and validity of environmental-specific servant leadership, environmental passion, and employees’ workplace green behavior. The indicators loadings are found in the range of 0.564 and 0.845, and are higher than 0.50 (**Table 1**), which is a sign of indicators’ reliability (Chin 1998). One item of environmental-specific servant leadership was removed from the measurement model because of its loading below 0.40 (Hair et al., 2017). In order to construct reliability, authors assessed the composite reliability (*CR*). Composite reliability (*CR*) values of environmental-specific servant leadership (0.927), environmental passion (0.919), and employees’ workplace green behavior (0.900) are above 0.70 (Hair et al., 2020) (**Table 1**), which indicate acceptable internal reliability. A reflective construct has acceptable convergent validity in the presence of its indicators loadings > 0.70 and the average variance extracted (*AVE*) > 0.50 . Loadings above 0.40 are also acceptable provided *AVE* is greater than 0.50. *AVE* values of environmental-specific servant leadership (0.515), environmental passion (0.536), and employees’ workplace green behavior (0.601) are higher than cut-off values (**Table 1**), thus all of them possess acceptable convergent validity. In this work, the Fornell-Larcker criterion (Fornell and Larcker, 1981) was employed to examine the discriminant validity of the continuous variables. The measurement model analysis demonstrated that inter-construct correlation values of environmental-specific servant leadership, environmental passion and employees’ workplace green behavior are lower than the square root of their respective *AVE* values (**Table 2**), which is a clear sign of their acceptable discriminant validity. In addition, the *HTMT* ratio of environmental-specific servant leadership and environmental passion with employees’ workplace green behavior are also found below 0.90, which signify their sufficient discriminant validity. Following the Cohen, (1988)’s criteria for correlation values, environmental-specific servant leadership ($0.511 > 0.50$) and environmental passion ($0.688 > 0.50$) have high association with employees’ workplace green behavior (**Table 2**).

Table 1. Factor loadings, reliability and average variance extracted (AVE).

Construct	Item	Loading	CR	AVE
Environmental passion	EP1	0.657	0.919	0.536
	EP2	0.701		
	EP3	0.666		

Table 1. (Continued).

Construct	Item	Loading	CR	AVE		
Environmental passion	EP4	0.845				
	EP5	0.564				
	EP6	0.713				
	EP7	0.834				
	EP8	0.806				
	EP9	0.694				
	EP10	0.794				
Workplace green behavior	WGB1	0.756				
	WGB2	0.843				
	WGB3	0.686	0.900	0.601		
	WGB4	0.748				
	WGB5	0.794				
	WGB6	0.814				
Environmental-specific servant leadership	ESL1	0.682				
	ESL2	0.845				
	ESL3	0.673				
	ESL4	0.701				
	ESL5	0.706				
	ESL6	0.643	0.927	0.515		
	ESL7	0.745				
	ESL8	0.691				
	ESL9	0.687				
	ESL10	0.779				
	ESL11	0.676				
	ESL12	0.767				

Table 2. Correlations and Fornell-Larcker criterion.

Construct	1	2	3
1. Environmental passion	<i>0.732</i>		
2. Environmentally-specific servant leadership	0.584	<i>0.717</i>	
3. Workplace green behaviour	0.688	0.511	<i>0.775</i>

*the italic values in diagonal indicate square root of respective AVE.

In current study, we adopted cross-validated redundancy approach to assess the predictive relevance of the independent variables on the dependent variable. As compared to cross-validated communality, this method determines the predictive relevance based on both measurement and structural model (Hair et al., 2020). By running blindfolding tools in the smartPLS, we found that the predictive relevance (Q^2 Values) of all endogenous variables is greater than 0.15 which indicates their moderate relevance in current study (**Table 3**).

Table 3. R Square and Q Square values.

Construct	R Square	SSO	SSE	Q ² (=1-SSE/SSO)
Environmental passion	0.336	3850	3143.724	0.183
Workplace green behaviour	0.621	2310	1562.404	0.324

4.5. Hypotheses testing

In current study, the path analysis unraveled that environmental-specific servant leadership significantly positively influence employees’ environmental passion ($\beta = 0.418, \rho < 0.05$). The data analysis also offered empirical evidence in support of significant positive impact of the environmental passion on employees’ workplace green behavior ($\beta = 0.280, \rho < 0.05$). Hence, hypotheses H1 and H2 both are accepted in this study. The indirect effect of environmental-specific servant leadership on employees’ workplace green behavior, which is a product of coefficient value of the “environmental-specific servant leadership-environmental passion” relationship ($\beta = 0.418$) and “environmental passion-employees’ workplace green behavior ($\beta = 0.280$), is significantly positive ($\beta = 0.117, \rho < 0.05$) (see: **Table 4**). It means that environmental-specific servant leadership indirectly significantly influence employees’ workplace green behavior through environmental passion. Therefore, the mediation hypothesis H3 is accepted in the current study.

Table 4. Hypotheses testing.

Relationship	B	S.D	T-value	P-value	LLCI	ULCI
Environmental-specific servant leadership > environmental passion	0.418	0.123	3.398	0.000	0.177	0.659
Environmental passion > workplace green behavior	0.280	0.136	2.059	0.040	0.013	0.547
Environmental-specific servant leadership > environmental passion > workplace green behavior	0.117	0.032	3.656	0.000	0.054	0.180

5. Discussion and conclusion

Till now, this article is the pioneer one that examines the relationship of environmental specific servant leadership with employees workplace green behaviour through environmental passion. It has substantial weightage to conclude with the acceptance of all these hypotheses. This work contributes to the sustainable development literature by adopting quantitative approach, offering both managerial and theoretical implications and directing towards future research paths as well. The results of all three hypotheses are elucidated as follows.

First, hypothesis H1 is accepted, which confirms the significant positive effect of environmental specific servant leadership on employees environmental passion. This results is in consistent with those offered by studies in past such as Tu et al., (2023), Chreif and Farmanesh, (2022), Tuan, (2022) and Robertson and Barling, (2013). In an experimental study, Tu et al., (2023) concluded that environmentally specific transformational leadership guides environmental passion among employees. Adopting a dyadic approach, Chreif and Farmanesh, (2022) conducted a study among non-profit organizations in Lebanon. In their study, results demonstrated the

positive impact of ethical leadership on employee's harmonious environmental passion. Tuan, (2022) has conducted a research study in the hospitality sector of South Korea and Vietnam. In their multi-source data, it was validated that green authentic leaders positively influence employee's harmonious environmental passion. In a subordinate-leader dyads sample, it was disclosed that environmentally specific transformational leadership influence environmental passion through leaders' workplace pro-environmental behaviors (Robertson and Barling, 2013). In the context of Thailand, it was reported that spiritual leaders indirectly promote environmental passion through workplace spirituality (Afsar et al., 2016). Moreover, Luu (2023) also conducted a study among tour operators and collected data from both employees and supervisors in Vietnam. In their study, empirical findings confirmed the positive effect of green human resource management on harmonious environmental passion. Nevertheless, there is moderate presence (3.189) of environmental-specific servant leadership practices in HEIs of China. Therefore, it is of utmost importance to explore relevant factors in order to spur these practices.

Second, this present article concluded with significant positive relationship of environmental passion on employees workplace green behaviour. The current result complies with those offered by similar studies in literature such as Afsar et al., (2016), Chen et al., (2021), Chreif and Farmanesh, (2022) and Ali et al., (2023). In the context of Thailand, Afsar et al., (2016) collected data from multiple industries and empirical findings claimed about positive impact of environmental passion on the employees pro-environmental behavior. Similarly, (Chreif and Farmanesh, 2022) reported positive effect of environmental passion on employees green behavior in Lebanon. In the Chinese oil and mining industry, data analysis demonstrated the strong positive effect of harmonious environmental passion on employees voluntary workplace green behavior as well (Chen et al. 2021). By integrating social cognitive theory with social information theory, (Ali et al. 2023) collected data from employee-customer dyads in Pakistan and confirmed environmental passion as the strong determinant of green corporate image. Considering the strong empirical evidences, Farrukh et al., (2023) emphasized on the promotion of environmental passion among employees. Yet, environmental passion is being practiced at moderate level (3.008) in HEIs of China. Thus, there is utmost importance to ignite such psychological motivation at employee's level.

Third hypothesis H3 posited that environmental passion mediates the relationship of environmental specific servant leadership with employees workplace green behaviour based on stimulus-organism-response model. The current data analysis demonstrated strong support in favour of indirect effect of environmental specific servant leadership. This mechanism findings are consistent to those similar evidences offered by Robertson and Barling, (2013), Tu et al., (2023) and Luu, (2023). In an experimental research, it was unravelled that transformational leaders indirectly influence employees pro-environmental behavior through their environmental passion (Tu et al. 2023). In the hospitality industry, Tuan, (2022) found that harmonious environmental passion significantly mediates the relationship of authentic leadership with employees organizational citizenship behavior towards environment. In Lebanon, it was disclosed that harmonious environmental passion significantly mediates the "ethical leadership- employee green behavior" relationship

(Chreif and Farmanesh, 2022). On the same note, it was concluded that green human resource management practices ignite green creativity among employees through harmonious environmental passion (Tuan Trong Luu 2023). In addition, the employees-supervisor dyadic sample also supported the intervening role of harmonious environmental passion on the relationship of leaders' workplace pro-environmental behaviors with employees pro-environmental behaviors (Robertson and Barling, 2013).

6. Implications

The current study offers numerous implications to both theories, practitioners and policy makers. First, this study contributes to the stimulus, organism-response model by offering empirical evidence related to the indirect impact of environmental specific servant leadership (stimulus), environmental passion (organism) and employee's workplace green behavior (response). Second, the present research also enriches literature on leadership by examining the mechanism of servant leadership to employees related outcomes. Third, this article extends application of theories in the human behavior domain by introducing passion as an organism. Fourth, this study also adds on to extent literature by facilitating Chinese higher education perspective. Fifth, the current empirical findings encourages practitioners and policy makers to promote servant leadership practices which are proven vital to spur employee's green behavior. As environmental specific servant leadership and environmental passion are both found at the lower moderate level among Chinese HEIs. Therefore, the policy makers are also recommended to establish motivational factors related to these dynamics in higher education context as well.

7. Limitations

This research work is not free of limitations. First, the authors collected data from single source i.e., employees. Future studies are recommended to collect data from multiple sources i.e., employees and their supervisors to establish causality relationship. Second, the PLS-SEM analysis permitted the simultaneous testing of the proposed framework, there is need to be cautious while interpreting the results in future studies. Third, future studies could also strengthen the explanatory power of the model by introducing additional variables on the link between environmental specific servant leadership and employee workplace green behaviour. Fourth, authors did not consider the dualistic nature of passion in the form of obsessive and harmonious passion. Nevertheless, both categories are based on different determining factors. Future studies could explore the intervening role of these factors on employees workplace green behaviour. Fifth, authors conducted this study in HEIs of China. There is need to conduct similar studies in different cultural identities to establish generalization. Sixth, future studies could also consider any potential conditional factors such as environmental awareness and organizational support, on the "leadership-employees behaviour" relationship.

Author contributions: Conceptualization, SX and SRBMZ; methodology, SX; software, QI; validation, SX, SRBMZ and QI; formal analysis, SX; investigation, SX;

resources, QI; data curation, SX; writing—original draft preparation, SX; writing—review and editing, SX and QI; visualization, SRBMZ; supervision, SRBMZ; project administration, SX; funding acquisition, SX. All authors have read and agreed to the published version of the manuscript.

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