

# Investigating the Mediating Role of Green Organizational Identity Through Green Inclusive Leadership and Organizational Citizenship Behavior for Environment

Tahseen Ullah Khan

SZABIST University, Islamabad

2467139@szabist-isb.pk

## ABSTRACT

*As concerns about environmental issues is increasing, more pressure is incorporated to promote environmentally responsible behaviors by employees in the oil, gas, and petroleum industry. This research is an effort to investigate the role of Inclusive Leadership for building sustainable behavior of employees as OCBE. Further it has been tried to observe the role of Green Organizational Identity as a mediator for Inclusive leadership and OCBE. Total 150 employees of oil and gas projects in Islamabad were involved in data collection. Data analysis was performed through SPSS. The results show that inclusive leadership promotes OCBE of employees. However, sense of green is not a significant mediator in this relationship. Overall, the study suggests that leadership itself can be a powerful influence on sustainability at work, however green identification does not mediate that suggest despite leadership effort employees are still weak to build their identity with green. Thus, there is need to develop environmental strategies, transparent communication, and employee involvement in sustainability initiatives at organizational level.*

**Keywords:** GIL, GOI, Oil and Gas Sector.

**Conflict of Interest:** N/A

**Funding Acknowledgment:** No funding was received for this research

**Copyright:** The Authors



licensed under a Creative Commons Attribution 4.0 International License.

## 1. INTRODUCTION

The growing fear in recent years over climate change, environmental decline, unsustainable business conduct, etc., have advocated the adoption of sustainability in organizational management frameworks and management approaches by organizations (Aboramadan et al., 2023). Environmental sustainability has changed from being a corporate social responsibility to becoming a strategic and behavioral imperative with modern organizations. Among various factors of this transformation, the emergence of sustainable leadership facilitates inclusiveness, environmental awareness and employee (Chen and Chang, 2013).

Green inclusive leaders encourage the culture of participation where employees come up with ideas for the environment, ensure participatory problem-solving, and take voluntary initiatives beyond their job description (Abdou et al., 2023) as OCBE, which is voluntary actions of the workplace volunteers to protect and enhance the environment around the workplace (Boiral and Paillé, 2012).

Nevertheless, leadership may not be the sole cause why employees were willing to demonstrate OCBE. Researchers have stressed that there is a mediating role played by psychological processes including the identification of the employees with the green values of the organization (Chen et al., 2013). This type of perception is labeled green identity. Employees with high attachment to green organizational identity have a higher tendency to volunteer themselves to pro-environmental actions.

The industry like oil and Gas which has high impact on environment and communities is considered to pay more attention to the sustainability. Recent literature focuses on the necessity of firms to incorporate environmental, health and safety (EHS) management systems and encourage employee engagement in pro-environmental behaviors. With the environmental impact and strategic role of oil, gas, and petroleum projects in the global energy supply, sustainability has emerged as an important aspect of these projects.

The studies of Dmitrieva, et al., (2021) and Cherepovets and Tsvetkov (2021) suggest align the sustainable strategic approach in the leadership of organizations involved in high tech project that cause environmental issues. Both studies underscore the importance of strong frameworks for sustainability assessment in managing the complex challenges of oil and gas projects in sensitive environments. Collectively, these studies highlight a paramount critical need for

strategically sustainable practices associated with operations in the oil, gas, and petroleum industries, by integrating both environmental risk management, technological innovation, and comprehensive sustainability frameworks. This convergence of the sustainability assessment offers the roadmap for the sector to reduce the ecological impacts, achieve the operational efficiency and energy security (et al., Cherepovitsyn & Tsvetkov, 2021).

Schneider et al. (2013) assessed the maturity of EHS systems of 10 major oil companies and indicated the systems have been progressing but there remain gaps in management systems that prevent the oil companies from being fully sustainable and leaders in EHS practices. Similarly, Jung, Kim, and Rhee (2001) presented the "Gsore" framework to evaluate corporate environmental performance in the petroleum companies, in terms of discrepancy between environmental performance that was declared and that was actually achieved during management. These studies say that both organizational commitment and structured performance metrics are the keys to improving sustainability in this sector.

Alagoz (2023) highlighted the difficulty in satisfying economic, environmental, and social considerations in order to be sustainable in oil and gas operations. Reporting on sustainability efforts and pursuing green business strategies are designated as some of the mechanisms that can help firms to shift toward sustainable operations. The study brings out the fact that voluntary initiatives are usually mentioned, yet their effectiveness relies on concrete organizational structures for green practices.

The study of Awawdeh et al. (2022) investigated the sustainability and corporate environmental performance, while CSR activities were found to be less significant in the context of the energy sector. This fits into larger research highlighting the importance of innovation in environmental strategies in high impact sectors such as oil and gas.

Wu and Lin (2022) examined the sustainable performance, finding that there is a U-shaped relationship, in line with the Porter Hypothesis. Carbon trading policies (Yu et al., 2022) and digital finance (Cao et al., 2021) have also been found to have positive effects in improving environmental performance for companies, reflecting the link between markets, governance, and innovation at the firm-specified level. Social trust has become another factor in determining, with firms in high trust economies showing greater environmental performance (Shahab et al., 2023). These organizational efforts also correlate to the UN

sustainable goals, which point out ecological sustainability and responsible organizational conduct. They further explain the leadership behaviors that foster employee participation and environmental identity, such as Green Inclusive Leadership, play an important role in achieving these goals at the organizational level.

While much of the work previously done has focused on the issues of firm-level sustainability and technological solutions, with OCBE as critical factors in translating corporate initiatives into real outcomes. Employees' voluntary participation in pro-environmental behaviors, aided by green organizational initiatives (GOI) such as well-organized sustainability programs, EHS maturity, and green finance mechanisms, help in developing sustainable behaviors in individuals (GIL) contributing to better overall environmental performance. Studies in other sectors (Mi et al., 2019) support this link, offering evidence that leadership, employee ownership, and organizational climate may act as key mediators in the promotion of OCBE and GIL.

Thus, the mediating effect of GIL on OCBE through mediating effects of GOI brings to good knowledge on how organization can design sustainable and environmentally responsible workplaces. Most previous studies have been done in Western or East Asian countries and not much attention has been given to developing or under developed countries where environment awareness and inclusiveness of leadership may differ

## **2. LITERATURE REVIEW**

The growing concern on environmental sustainability over the past few years has altered how organizations view leadership, identity, and employee behavior. Among the several approaches the Green Inclusive Leadership (GIL) leads to a culture of green environmental values, collaboration and fosters the identification of the employees with the green vision of their organization. The mechanism, which links GIL and OCBE, is, however, not well known. Whereas, the work of Chen et al., (2015) imprints the concept of green organizational identity as mediator for green environmental behavior.

### **Green Inclusive Leadership**

Inclusive leadership was initially defined as leader behaviors that are described as openness, accessibility, and availability that promote involvement and voice from the employees. While this early work was not explicitly concerned

with environmental issues, it did lay the theoretical core for subsequent extensions to the concept of inclusive leadership with the relation of sustainability. Similarly, in the context of environment Amjad et al. (2024) examined the manufacturing projects aligned with sustainability and proved that the relationship between GIL and green HRM had substantial influence on project sustainability. Their results showed that green skill competency and green creative self-efficacy act as mediators in this relationship, so we theorized that leadership impacted sustainability by improving the ability and confidence of employees to participate in pro-environment activities via projects. These findings are very much applicable to oil and gas projects because technical skills and responsible environmental decisions are fundamental in oil and gas projects (Amjad et al., 2024).

Further, recent studies of environmentally intensive oil, gas, petroleum and extractive projects encourage the core role of leadership in sustainability outcomes. The study of Hu et al (2024) investigated green inclusive leadership with sustainability outcomes and found positive relationship with them. Sürütü (2024) investigated the green creativity in the hospitality industry and observed the significant impact of GIL on employees' green creativity behaviors. In the meantime, SIT states that through being the model of environmental commitment, the employees derive and internalize such values to create better Green Organizational Identity (GOI) which directly creates a conformance between personal goals with the goals of sustainability in organizations (Tajfel and Turner, 1986).

### **Green Organizational Identity**

Green organizational identity develops from the organizer identity theory, which was first articulated by Albert and Whetten (1985). Organizational identity is described by them as the characteristics of the organization that is central and enduring and is shared by the members of the organization. Based on this theoretical foundation, Chen (2011) was the first to add the notion of green organizational identity, in which they explicitly tied organizational identity to environmental values and practices. GOI is the understanding people in the organization share on their obligation for the protection of the environment.

GOI describes the employees' perception of their association and responsibility for environment as identity (Chen ., 2011). GOI is a psychological link between the leadership practices and the behavior of the

employees. Organizational identity has been recognized as a basic cause of sustainability and innovation in energy and petroleum projects. Literature suggests that organizational identity has a strong influence on the response of energy projects to sustainability pressures and innovation demands as they go through energy transitions. Through encouraging the inclusion and green programs, the employees feel that they are a part of it and are proud of being part of an environmentally aware (Al-Ghazali et al., 2024). Existing literature draws attention to the fact that the adoption of sustainable practices in these projects is not only influenced by the pressure from regulations, but also by managerial perceptions, organizational identity, leadership orientation, and project-level governance mechanisms.

Green Organizational Identity (GOI) has become an important construct in relation to understanding how organizations facilitate sustainability, green innovation and pro-environmental employee behaviors. GOI means the general perception of the members of an organization that environmental sustainability is an integral characteristic of the organization's identity (Song & Yu, 2018). Research has documented time and time again that organizations that develop a solid GOI are more likely to be able to incorporate greener practices and get employees to participate in environmentally responsible behavior. Empirical research also supports the mediating role of green organizational identity in innovation driven by sustainability. The study of Yousaf et al. (2022) also present green identity as mediator and its findings are found relevant to oil and gas projects because identity alignment can help to translate strategic intent into environmentally responsible project-level practices.

GOI boosts green creativity that leads to the successful implementation of green innovation by tourist hotels and manufacturing companies (Mittal & Dhar, 2016). In the hospitality sector, the green service innovation created by GOI has a positive impact on the environmental sustainability in hospitality (Haldorai, et., 2023). Similarly in industrial and corporate perspective GOI enhance corporate environmental performance through promoting both sustainability exploration and exploitation innovations (Xing, Wang, & Tou, 2019). The mediating effects of GOI on GIL, and thereby the effect on OCBE are supported by empirical research. Lu et al, (2022), found that inclusive leadership promoting environmental practices with employees increases identification of employees with the green mission of the organization. The identification, in its turn, promotes OCBE appropriate behaviors, such as resource conservation and environmentally-

friendly attitude. On the same note, Nisar et al., (2023) have also established that the association of leadership with OCBE has partial mediation with GOI, which implies that the identity-based mechanisms are an important aspect in the conversion of leadership influence to sustainable behaviors.

## **Organizational Citizenship Behavior for Environment**

OCBE is a derivative of the general idea of organizational citizenship behavior that was first introduced by Organ (1988). Organizational citizenship behavior is classified as those forms of employee behavior that are not formally rewarded but are voluntarily performed in order to meet organizational success. Extending this concept to the environmental domain, Boiral (2009) was one of the first scholars who stressed the voluntary environmental behaviors performed by employees that were outside the formal job requirements.

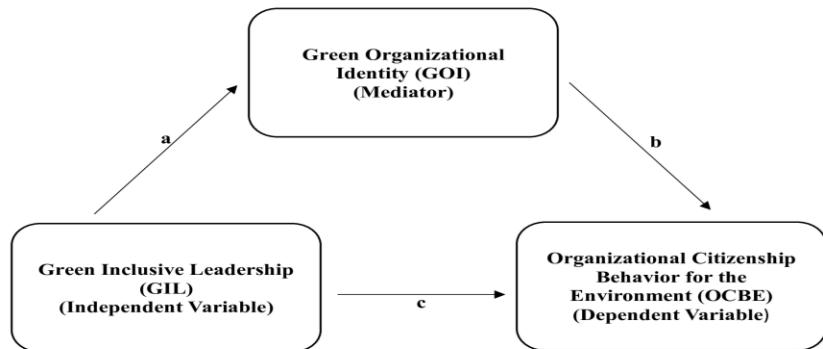
OCBE is an environmental addition through voluntary actions of employees on their own initiative and will, but which are not mentioned in the official job description (Boiral, 2009). Some of the examples are to minimize consumption of energy, recycling and influencing others to lead eco-friendly lifestyle. OCBE is crucial to the attainment of the organizational sustainability since it is a bottom-up involvement in environmental objectives (Paillie et al. 2016). Companies with OCBE enjoy the advantage of better environmental performance, lower costs of operation, and a better reputation of the company (Daily et al., 2009). Nonetheless, the development of OCBE is not limited to rules and rewards and requires leadership that facilitates and harmonizes the values of the employees with the goals of sustainability of an organization.

In developing economies, responsible leadership was found to directly and indirectly affect OCBE through the exchange of colleagues and the stronger the effect of responsible leadership under high goal orientation and supportive green work environments (Wang et al., 2025). However, the role of employee attitudes and psychological factors is important in OCBE as well and the study of Bissing-Olson et al, (2012) confirms the relationship of leadership and OCBE.

### **3. CONCEPTUAL FRAMEWORK**

Current study highlights the association of independent variable (GIL) with dependent variable (OCBE) through mediation of (GOI). This perceived model suggests that inclusive leadership influences the individual's green behavior where employees' attitude of green environmental identity also is a land mark between

independent and dependent variables. Through this mechanism, leadership influences individual green behaviors, with psychological and behavioral factors translating green intentions into actual OCBE.



**Figure 3.1. Conceptual Framework**

- H1:** Green Inclusive leadership (GIL) has positive impact on Organizational Citizenship Behavior for Environment (OCBE).
- H2:** Green Inclusive leadership (GIL) has positive impact on Green Organizational Identity (GOI) of employees.
- H3:** Green Organizational Identity (GOI) has positive impact on Organizational Citizenship Behavior for Environment (OCBE).
- H4:** Green Organizational Identity mediates the relationship between Green Inclusive leadership and Organizational Citizenship Behavior for Environment.

#### 4. METHODOLOGY

The under-discussion study based on deductive approach follows the positivist research paradigm. This quantitative research design involves the collection, assessment of data, results testing of the hypotheses and an objective evaluation of a connection between the variables. The study population consists of the employees working in the Oil, Gas, and Petroleum dominated by the various age groups. The age bracket was between 18 - 60 years. The convenience sampling

method is applied in this study which means selecting the respondents that are readily available, like the employees working in oil and gas and in petroleum projects in Islamabad. The data was collected from 150 respondents on five points Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree).

3 items scale of Bhutto et al., (2021) was adopted for independent variable green inclusive leadership (GIL). The scale of 6 items of Quan et al., (2022) was adopted for mediator green organizational identity (GOI) whereas 10 items scale of Paille et al (2014) was adopted for dependent variable OCBE

The analysis of the survey information was based on the SPSS that enables working with large amounts of data and performing different statistical tests (IBM Corp., 2020). Missing/ inconsistent responses were filtered out and using descriptive statistics for evaluating the distribution and normality.

## Descriptive Analysis

**Table 4.1** Descriptive Analysis/ Nominal distribution

	N	Mean	Std. Deviation	Skewness		Kurtosis	
				Statistic	Statistic	Statistic	Std. Error
GIL	150	4.009	.7057	-1.042	.198	1.514	.394
GOI	150	3.9478	.63637	-.888	.198	1.619	.394
OCBE	150	3.9207	.51894	-.317	.198	.887	.394
Valid (listwise)	N 150						

Table 4.1 shows the skewness and kurtosis values. All skewness values were between the threshold of  $\pm 3$  which showed no severe asymmetry. All kurtosis values were also falling between the threshold of  $\pm 3$  which showed that distributions were close to normal. Since both skewness and kurtosis for all variables are within these limits, the data can be considered approximately normally distributed, meeting the assumptions for parametric statistical analyses.

## Reliability Analysis

All the constructs were highly reliable as indicated in Table 2 with threshold values of Cronbach alpha 0.70. To be more precise, the alpha of Cronbach was 0.819 (GIL), 0.881 (GOI), and 0.873 (OCBE), which proves that the instruments applied were reliable and consistent.

**Table 4.2 Reliability Analysis**

Construct	Item	Cronbach's Alpha
GIL	3	0.819
GOI	6	0.881
OCBE	10	0.873

## Regression Analysis

**Table 4.3 Effect of GIL on OCBE**

Model	R	Adjusted R Square	Std. Error of the Estimate	Change Statistics					F	df1	df2	Sig.	F Change					
				R Square		the R Square Change												
				Estimate	Change	df1	df2	Sig.										
1	.668 <sup>a</sup>	.447	.443	.38730	.447	119.498	1	.000										

**Table 4.4 Coefficient**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.950	.183		10.659	.000
	GIL	.491	.045	.668	10.932	.000

DV: OCBE

Direct impact of GIL on OCBE with the Environment has been analyzed using the simple linear regression analysis. Table 3 to 5 predicts that green inclusive leadership (GIL) is substantial predictor of OCBE ( $\beta = 0.668$ ,  $p = .001$ ). The model was able to explain the OCBE variance ( $R^2 = 0.447$ ) and the entire relationship is found statistically acceptable ( $F = 119.498$ ,  $p$  value = 0.001). These findings corroborate Hypothesis 1, which shows that GIL is positively linked with OCBE of employees.

### Results of impact of GIL on GOI

**Table 4.5 Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.713 <sup>a</sup>	.509	.506	.44747

IV: GIL

**Table 4.6 Coefficient**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.369	.211		6.475	.000
GIL	.643	.052	.713	12.384	.000

DV: GOI

Table 4.5, and 4.6 indicate that the regression finding indicated positive impact of green inclusive leadership on green organizational identity ( $\beta=0.713$ ,  $p =.001$ ). Model described 50.9 percent of the variance in GOI ( $R^2 = 0.509$ ), the statistically significant value of F ( $F = 153.356$ ,  $p$  value =0.001).

### *Results of impact of GOI on OCBE*

**Table 4.7 Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.539 <sup>a</sup>	.290	.286	.43865

IV: GOI

**Table 4.8 Coefficient**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
1 (Constant)	2.186	.226		9.6	.00
GOI	.439	.056	.539	8.2	0

a. Dependent Variable: OCBE

Green Organizational Identity effect on OCBE was also tested by analyzing simple linear regression. GOI greatly predicted OCBE as indicated in Tables 4.8 to 11 ( $\beta= 0.539$ ,  $p <.001$ ). The model explained 29.0 percent of the variation in OCBE ( $R^2= 0.290$ ) suggests model significance as ( $F = 60.538$ ,  $p <.001$ ). H3 is found accepted with significant impact of green organizational identity on OCBE

### **Mediation Analysis**

#### *Hayes Process Model 4*

**Table 4.9** Direct effect of X on Y

Effect	SE	t	p	LLCI
ULCI				
0.4253	0.0639	6.6533	0.0000	1.0000
				148.0000

**Table 4.10** Indirect effect of X on

Effect	Boot SE	Boot LLCI	Boot ULCI
GOI	0.0662	0.0530	-0.0271
			0.1795

**Table 4.11** Total effect

Effect	SE	t	p	LLCI	ULCI
GOI	0.4915	0.0450	10.9315	0.0000	0.4026
					0.5803

Based on Hayes, the mediating model was implemented as the PROCESS Macro (Model 4) to investigate the possibility of Green Organizational Identity mediating the relationship between Green Inclusive Leadership and OCBE. Table 12 reveals that the direct effect of GIL on OCBE was still significant ( $\beta=0.4253$ ,  $p <.001$ ). Table 13 shows that there was a positive role of indirect effect via GOI but the bootstrap confidence interval contained zero meaning that the mediation effect was not statistically significant. Table 4.11 affirms that there is a significant overall effect of GIL on OCBE.

On the whole, these results demonstrate that whereas Green Inclusive Leadership has a direct impact on OCBE, it is a strong predictor of Green Organizational Identity, however, it is clear that the role of GOI between Green Inclusive Leadership and OCBE is not significant in this sample.

## **5.CONCLUSION**

The perceived model of investigating green inclusive leadership and OCBE

of employees through mediation of employees' green identity in oil, gas, and petroleum sector observed that inclusive leadership with sustainable strategies has significant and constructive role in enhancing employees' environmental citizenship behavior. Employees who perceive their leaders as inclusive, supportive, and environmentally committed get engaged in voluntary actions which add value to environmental protection, even beyond their formal job responsibilities. This confirms the critical role of leadership in shaping environmentally responsible workplace behaviors.

The results also show that Green Inclusive Leadership significantly strengthens Green Organizational Identity, suggesting that inclusive green leaders help employees develop a sense of pride and belonging toward the organization's environmental mission. However, although Green Organizational Identity was positively related to OCBE, it did not significantly mediate the relationship between GIL and OCBE. This indicates that while identity is important, leadership in this sector may influence environmental behavior more directly rather than primarily through psychological identification mechanisms.

Overall, the study is significant because it contributes to the literature on sustainable leadership by highlighting that inclusive leadership practices alone can act as a powerful carrier of pro-environmental behavior, particularly in high-risk and male-dominated industries such as oil and gas.

## **6. PRACTICAL RECOMMENDATIONS**

Following the results of study, it is recommended organizations working in oil and gas sector need to invest in developing sustainable strategies and practices, encouraging leaders to actively involve employees in environmental decision-making and sustainability initiatives.

Managers should create platforms where employees feel safe to share green ideas and participate in sustainability efforts without fear of criticism. Leadership training programs should emphasize inclusivity, environmental awareness, and employee engagement as core competencies.

Organizations should also strengthen internal communication around environmental goals and achievements to reinforce employees' sense of belonging and responsibility toward sustainability. Although GOI did not act as a significant mediator, fostering a shared green identity can still support long-term environmental commitment. At the policy level, organizations should align leadership development strategies with UN Sustainable Development Goals,

particularly SDG 12, SDG 13, and SDG 8, to promote responsible production, climate action, and sustainable economic growth.

## 7. FUTURE DIRECTION

Future research can extend this study in several ways. Researchers may adopt longitudinal or experimental designs to better establish causal relationships between leadership, identity, and environmental behavior. Further studies may examine additional mediating or moderating variables, such as self-efficacy, psychological climate, or commitment, based on green perception to explain how leadership translates into OCBE. Comparing diverse cultures and regions can also give better understanding of leadership styles for sustainable strategies and outcomes. Additionally, future research could focus on female leadership perspectives or leadership at different hierarchical levels within the oil and gas sector.

## REFERENCES

Abdulkazeem, A. (2025). Exploring the Innovative Practices of Small and Medium Confectionery Enterprises and Their Performance in Bida, Niger state, Nigeria. *Kardan Journal of Economics and Management Sciences*, 8(1). <https://dx.doi.org/10.31841/KJEMS.2025.185>

Abdou, A. H., Al Abdulathim, M. A., Hussni Hasan, N. R., Salah, M. H. A., Ali, H. S. A. M., & Kamel, N. J. (2023). From green inclusive leadership to green organizational citizenship: Exploring the mediating role of green work engagement and green organizational identification in the hotel industry context. *Sustainability*, 15(20), 14979.

Abdou, A. H., Hassan, T. H., & El Dief, M. M. (2023). A systematic review of the relationship between green inclusive leadership and employee green behaviors in the hospitality sector. *Journal of Sustainable Tourism*, 31(5), 1120–1140.

Albert, S., & Whetten, D. A. (1985). *Organizational identity. Research in Organizational Behavior*, 7, 263–295.

Alagoz, E. (2023). Sustainable development in the oil and gas sector: Considering economic, environmental and social aspects. *International Journal of Earth Sciences Knowledge and Applications*, 5(2), 303–308.

Al-Ghazali, B. M., Afsar, B., & Umrani, W. A. (2024). The mediating role of green organizational identity in the relationship between green inclusive leadership and employee green behavior. *Corporate Social Responsibility and Environmental*

*Management*, 31(1), 345–360.

Amjad, F., Rao, Y., Rahman, A. U., Mohsin, M., & Sarfraz, M. (2024). Fostering sustainability through green HRM and green inclusive leadership: The dual mediating role of creative self-efficacy and green skill competency. *Current Psychology*, 43(26), 22181–22199.

Awawdeh, A. E., Ananzeh, M., El-Khateeb, A. I., & Aljumah, A. (2021). Role of green financing and corporate social responsibility (CSR) in technological innovation and corporate environmental performance: A COVID-19 perspective. *China Finance Review International*, 12(2), 297–316.

Bissing-Olson, M. J., Iyer, A., Fielding, K. S., & Zacher, H. (2013). Relationships between daily affect and pro-environmental behavior at work: The moderating role of pro-environmental attitude. *Journal of Organizational Behavior*, 34(2), 156–175.

Bhutto, T. A., Farooq, R., Talwar, S., Awan, U., & Dhir, A. (2021). Green inclusive leadership and green creativity in the tourism and hospitality sector: serial mediation of green psychological climate and work engagement. *Journal of Sustainable Tourism*, 29(10), 1716-1737.

Boiral, O. (2009). Greening the corporation through organizational citizenship behaviors. *Journal of Business Ethics*, 87(2), 221–236.

Boiral, O., & Paillé, P. (2012). Organizational citizenship behaviour for the environment: Measurement and validation. *Journal of Business Ethics*, 109(4), 431–445.

Cao, S., Nie, L., Sun, H., Sun, W., & Taghizadeh-Hesary, F. (2021). Digital finance, green technological innovation and energy-environmental performance: Evidence from China's regional economies. *Journal of Cleaner Production*, 327, 129458.

Chen, Y. S., & Chang, C. H. (2013). The determinants of green product development performance: Green dynamic capabilities, green transformational leadership, and GCRT. *Journal of Business Ethics*, 116(1), 107–119.

Chen, Y.-S., Chang, C.-H., & Yeh, S.-L. (2015). *Green shared vision and green creativity: The mediation roles of green mindfulness and green self-efficacy*. *Quality & Quantity*, 49(3), 1169-1184.

Cherepovitsyn, A. E., Tsvetkov, P. S., & Evseeva, O. O. (2021). Critical analysis of methodological approaches to assessing sustainability of Arctic oil and gas projects. *Записки Горного института*, 249, 463–478.

Daily, B. F., Bishop, J. W., & Govindarajulu, N. (2009). A conceptual model for organizational citizenship behavior directed toward the environment. *Business & Society*, 48(2), 243–256.

Dmitrieva, D., Cherepovitsyna, A., Stroykov, G., & Solovyova, V. (2021). Strategic

sustainability of offshore Arctic oil and gas projects. *Journal of Marine Science and Engineering*, 10(1), 23.

Haldorai, K., Kim, W. G., Agmapisarn, C., & Li, J. J. (2023). Green organizational identity and environmental performance. *International Journal of Hospitality Management*, 114, 103574.

Hu, K., Chen, Y., Mu, S., & Tan, Z. (2024). Green inclusive leadership and sustainability in natural resources. *Resources Policy*, 89, 104607.

Lu, H., Cai, S., Liu, Y., & Chen, H. (2022). *How green human resource management (GHRM) impacts employee organizational citizenship behavior for the environment (OCBE): The role of emotions and value discrepancy*. *International Journal of Manpower*, 44(2), 318–333.

Mi, L., Gan, X., Xu, T., Long, R., Qiao, L., & Zhu, H. (2019). A new perspective to promote organizational citizenship behavior for the environment: The role of transformational leadership. *Journal of Cleaner Production*, 239, 118002.

Mittal, S., & Dhar, R. L. (2016). Effect of green transformational leadership on green creativity: A study of tourist hotels. *Tourism Management*, 57, 118–127.

Nisar, S. K., Rasheed, M. I., & Khan, S. K. (2023). Green inclusive leadership and green behavioral change: The mediating role of green organizational identity and green self-efficacy. *Leadership & Organization Development Journal*, 44(2), 258–276.

Organ, D. W. (1988). Organizational citizenship behavior: The good soldier syndrome.

Paillé, P., Boiral, O., & Chen, Y. (2016). The impact of human resource management on environmental performance: An employee-level study. In D. R. Gallagher (Ed.), *Environmental leadership: A reference handbook* (pp. 385–394). SAGE Publications.

Paillé, P., Chen, Y., Boiral, O., & Jin, J. (2014). The impact of human resource management on environmental performance: An employee-level study. *Journal of Business Ethics*, 121(3), 451–466.

Quan, D., Tian, L., & Qiu, W. (2022). The study on the influence of green inclusive leadership on employee green behaviour. *Journal of Environmental and Public Health*, 2022(1), 5292184.

Schneider, J., Ghettas, S., Merdaci, N., Brown, M., Martyniuk, J., Alshehri, W., & Trojan, A. (2013). Towards sustainability in the oil and gas sector. *Journal of Environmental Sustainability*, 3(3), 6.

Shahab, Y., Ye, Z., Liu, J., & Nadeem, M. (2025). *Social Trust, Environmental Violations, and Remedial Actions in China*. *Journal of Business Ethics*, 198(3), 637–654.

Song, W., & Yu, H. (2018). Green innovation strategy and green innovation. *Corporate*

*Social Responsibility and Environmental Management*, 25(2), 135–150.

Sürütü, L. (2024). The influence of green inclusive leadership on green creativity. *Journal of Hospitality Marketing & Management*, 33(5), 678–701.

Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Brooks/Cole.

Wang, G., Ain Aslam, Q. U., Mushtaq, N., Liaqat, A., & Asmi, F. (2025). Can responsible leaders transmute sustainability and OCBE? *BMC Psychology*, 13(1), 78.

Wu, R., & Lin, B. (2022). Environmental regulation and its influence on energy-environmental performance. *Resources, Conservation and Recycling*, 176, 105954.

Xing, X., Wang, J., & Tou, L. (2019). The relationship between green organization identity and corporate environmental performance. *International Journal of Environmental Research and Public Health*, 16(6), 921.

Yousaf, Z., Radulescu, M., Sinisi, C., Nassani, A. A., & Haffar, M. (2022). How do firms achieve green innovation? *Energies*, 15(7), 2549.

Yu, X., Shi, J., Wan, K., & Chang, T. (2022). Carbon trading market policies and corporate environmental performance. *Journal of Cleaner Production*, 371, 133683.