Sustainability in the Banking Sector Pakistan; Leader's Role and Green Employee Engagement

Quratul-ain-Kazmi*[1], Muhammad Umair[2], Muhammad Ali Noman Siddiqui[3], Saniya Fayyaz[4], Syeda Tarum Abbas[5]

[1*]Assistant Professor, College of Management Sciences, Karachi Institute of Economics and Technology, Karachi, Sindh, Pakistan.

[2]Program Manager, College of Management Sciences, Karachi Institute of Economics and Technology, Sindh, Pakistan.

[3]Head of Talent, National Bank of Pakistan, Karachi, Sindh, Pakistan.

[4]Reaserch Associate, Karachi University Business School, University of Karachi, Karachi, Sindh, Pakistan.

[5]Research Scholar, College of Management Sciences, Karachi Institute of Economics and Technology, Karachi, Sindh, Pakistan.

Corresponding author: syeda.kazmi44@gmail.com

In the contemporary banking sector, green employee engagement has ascended as a critical driver of sustainability, drawing significant attention from business researchers worldwide. This research delves into the influential role of green leader emotional intelligence on green employee engagement, particularly within Karachi's banking milieu. Furthermore, it explores the mediating effects of green employee behavior and green organizational citizenship behavior in this dynamic relationship. Employing a convenience sampling strategy, data were amassed from 387 banking professionals in Karachi, Pakistan, providing a comprehensive insight into the sector's eco-conscious practices. Analytical procedures were conducted using SmartPLS 3.0, ensuring rigorous data interpretation and hypothesis testing. The findings underscore the pivotal role of leaders' emotional intelligence in fostering an environment conducive to green work engagement. Notably, the results reveal that green employee behavior and green organizational citizenship behavior significantly mediate the relationship between green leader emotional intelligence and green work engagement. These mediators bridge the gap, highlighting the importance of individual and collective actions in promoting an eco-friendly work ethos. This study contributes to the burgeoning literature on green human resource management, emphasizing the necessity of emotionally intelligent leadership in catalyzing sustainable employee practices. It advocates for a paradigm shift in leadership strategies, urging the adoption of green initiatives that resonate on an emotional level, thereby enhancing employee engagement and propelling the banking sector toward sustainable horizons.

1. Introduction

In the era of increasing global climate change and mounting environmental degradation, organizations are growing more cognizant of their ecological footprint. As businesses integrate environmental considerations into their strategic planning, "green" leadership has emerged as a critical dimension for achieving organizational sustainability (Robertson & Barling, 2017a). Green leadership refers to the administration that goes beyond traditional roles to engage in and advocate for environmentally responsible practices actively. While green leadership is considered vital in the drive toward organizational sustainability, there is growing attention on green leaders' emotional intelligence (EI) and its potential influence on employees' green work engagement (GWE). The issue of environmental sustainability has been increasingly relevant in both public and corporate spheres, creating a demand for leaders who can effectively implement green initiatives. Recent literature suggests that an organization's leadership type significantly impacts its commitment to green practices (Smith et al., 2022). Within this paradigm, green leaders who emphasize sustainable development, ecological responsibility, and ethical behavior have emerged as critical agents for organizational change (Aguilera et al., 2007). While green leadership has garnered interest, the mechanisms through which green leaders impact organizational outcomes remain less explored.

Emotional intelligence, which involves understanding and managing emotions to achieve positive outcomes (Mayer et al., 2001), has been identified as a crucial factor for effective leadership in general (Tahir & Javed, 2022). However, how emotional intelligence in green leaders specifically impacts GWE is a subject that has yet to be fully explored. Green work engagement can be described as employees' dedication, enthusiasm, and immersion in green initiatives within the workplace (Muster & Schrader, 2011). This is a relatively new concept in employee engagement, traditionally viewed from a broader, more general perspective.

While the focus on emotional intelligence in leadership and its association with employee engagement is well-documented (Milhem et al., 2019; Quang et al., 2015), more literature still needs to be on how a green leader's emotional intelligence influences GWE. Even more overlooked is how this influence may be mediated by green employee behavior (GEB) and green organizational citizenship behavior (GOCB). GEB refers to employee activities that contribute positively to the organization's environmental goals (Daily et al., 2012). Meanwhile, GOCB consists of discretionary behaviors exhibited by employees that contribute to environmental sustainability but are not part of their formal job description (Boiral, 2009). Understanding the attributes that make green leaders effective is paramount in a business landscape increasingly pressurized by environmental concerns and social demands for corporate responsibility. However, there is limited empirical data on how a green leader's emotional intelligence influences green

work engagement in organizations. Green employee engagement describes the enthusiastic, active participation, dedication, and support workers show toward ecologically friendly workplace practices and activities (Huo et al., 2022). Employees' increased empowerment may encourage them to act more independently regarding environmental policies (Alam & Niu, 2021). When it comes to carrying out green initiatives, GEE has a beneficial impact on motivation levels and enhances the performance of an organization. (Khan et al., 2021)

By giving workers a voice to actively engage in environmental concerns inside the firm, green employee engagement refers to developing a cordial employer-employee relationship. Employee motivation and morale are improved through employee engagement, boosting productivity (Haddock-Millar et al., 2016). Employee engagement and empowerment increase their involvement in green projects since it is consistent with their organizational citizenship behavior and motives. Organizational citizenship behavior may be aligned with individual employee activities and behaviors that are neither necessary nor essential to the work but may aid the organization in achieving its environmental objectives. Initiatives for the environmental engagement of workers, which can raise awareness of environmental concerns among staff members inside an organization, are added to green employee engagement programs (Kuuyelleh et al., 2021). While the global significance of eco-friendly corporate strategies continues to grow, scholarly inquiries into green employee engagement are noticeably lacking, especially within developing countries such as Pakistan (Smith et al., 2022). The banking sector, an integral component of Pakistan's economic infrastructure, is notorious for its substantial ecological impact, stemming from water consumption, chemical treatments, and waste generation (Kumar et al., 2022). In the context of organizational efforts to implement sustainability, the influence of employee engagement in propelling such ecological initiatives is indisputably critical (Moyo, 2019). Despite the predominance of studies originating from Western settings (Rafiq,2020.), the applicability of such research to the distinct socio-cultural and industrial characteristics of Pakistan is yet to be ascertained. Additionally, scholarly attention to green employee engagement within Pakistan's banking industry—an essential economic sector for the nation—remains conspicuously inadequate. This deficiency not only highlights a lacuna in academic literature but also renders ambiguous the guidelines for organizational decision-makers seeking to cultivate sustainability within their teams (Khan et al., 2021).

This research endeavors to fill the existing academic void by investigating the determinants that influence eco-friendly employee engagement within the banking sector of Pakistan. In accomplishing this, the study aspires to provide practical recommendations for executives intent on advancing sustainability through employee engagement, thus aiding not just the organization but also the country's overarching sustainability goals. Although previous research has explored the relationship between general leadership and emotional intelligence (Wang et al., 2023) or green leadership and organizational outcomes (Tran et al., 2021), the intersection of these factors—specifically how a green leader's emotional intelligence impacts green work engagement—remains

a gap in the literature. Moreover, the mediating roles of green employee behavior and green organization citizenship behavior (GOCB) have not been comprehensively studied. Green employee behavior refers to actions taken by employees to support sustainability initiatives (Li et al., 2023), while GOCB denotes extra-role behaviors that go beyond formal job descriptions to promote an organization's green goals (Hanaysha et al., 2022). The current research objectives are to fill these gaps by examining the influence of green leaders' emotional intelligence on green work engagement while considering the mediating effects of green employee behavior and GOCB. Understanding these relationships will enrich academic literature and provide actionable insights for businesses committed to advancing their sustainability goals.

2. Literature Review

2.1 Theoretical Background

The most appropriate theory to support the research framework could be the "Transformational Leadership Theory" integrated with elements from "Emotional Intelligence Theory" and "Social Exchange Theory."

2.2 Transformational Leadership Theory

Initially conceptualized by Burns (1978) and later extended by Longshore and Bass (1987), the Transformational Leadership Theory posits that influential leaders inspire and motivate followers by creating a vision, fostering a sense of collective identity, and promoting high levels of commitment and performance. In conventional leadership, transformational leaders with high emotional intelligence would be more adept at inspiring their followers to engage in sustainable behaviors at work. Green leaders employing transformational leadership styles would significantly impact green work engagement, as they could better motivate their employees to be committed to sustainability initiatives. This addresses the core research question regarding the impact of a green leader's emotional intelligence on green work engagement.
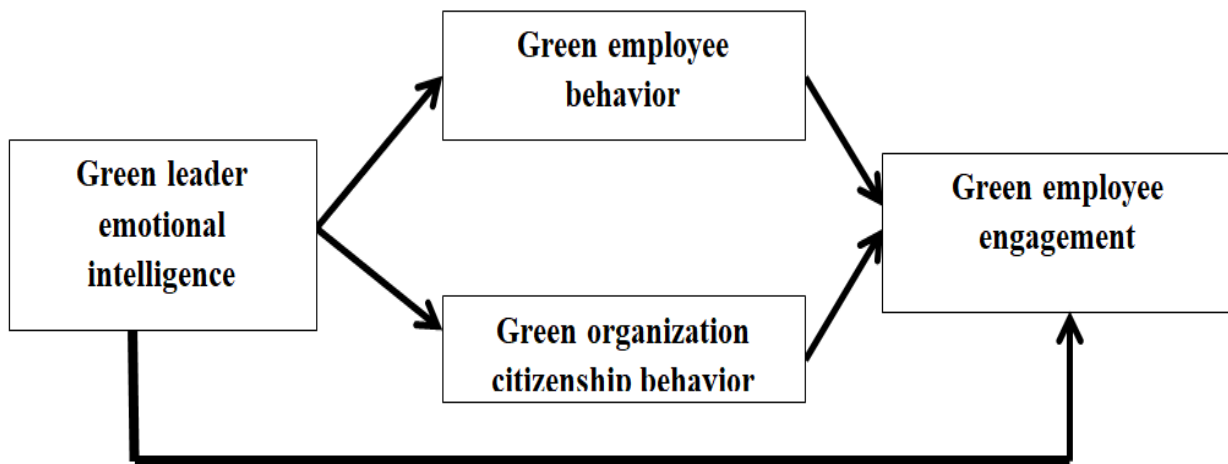
2.3 Emotional Intelligence Theory

Mayer et al. (2001). Introduce the Emotional Intelligence (EI) concept, further elaborated by Goleman (1995) and others. EI is about recognizing, understanding, managing, and using emotions in one and others effectively. Leaders with high emotional intelligence are shown to be more effective in organizational settings (George, 2000). Emotional intelligence can serve as the attribute through which green leaders inspire green work engagement. Understanding and managing emotions in a team setting would be crucial when implementing green initiatives, which often require changes to established procedures and behaviors.

2.4 Social Exchange Theory

Social Exchange Theory, primarily based on the works of Homans (1958) and Blau (1964), argues that social behavior and interactions result from an exchange process aiming to maximize benefits and minimize costs. In the workplace, when leaders invest in their employees, the

employees feel obliged to reciprocate through positive behaviors like engagement and citizenship behaviors (Cropanzano & Mitchell, 2005). According to this theory, employees who perceive their leaders as emotionally intelligent and invested in green initiatives may feel a social obligation to reciprocate with high levels of green work engagement and green organizational citizenship behaviors. This could serve as a mediating mechanism in the proposed research framework. According to Social Exchange Theory, green employee behavior and green organizational citizenship behavior can be seen as reciprocating actions that mediate the relationship between green leadership and green work engagement. This integrated theoretical approach can offer a multi-faceted lens to analyze the complex relationships among green leadership, emotional intelligence, and various forms of work engagement in promoting sustainability.

Figure No 1:Conceptual Framework

2.4 Green Leader Emotional Intelligence and Green Work Engagement

As organizations strive to integrate sustainability practices into their business models, the role of leadership has come under scrutiny. Specifically, green leaders who champion sustainability through a lens of ecological and ethical responsibility have emerged as critical drivers of organizational change (Smith et al., 2022). The hypothesis that "Green Leader Emotional Intelligence has a positive impact on Green Work Engagement" is this literature review's focal point, drawing on research from leadership studies, psychology, and organizational behavior. Emotional Intelligence (EI) was conceptualized by Mayer et al. (2001). and popularized by George (2000) as the ability to recognize, understand, manage, and effectively apply the power and acumen of emotions. The relationship between emotional intelligence and effective leadership has been well-documented (Lloyd et al., 2019). For example, leaders with high emotional intelligence were found to foster a work environment that enhances job satisfaction and employee engagement

(Law et al., 2008). Within the scope of green leadership, a handful of studies have begun exploring emotional intelligence's role. For instance, Norton et al. (2015) found that green leaders with high emotional intelligence were more effective at motivating employees to engage in sustainable behaviors.

Another study by Mardiana (2020) corroborated these findings by demonstrating that emotionally intelligent green leaders were more likely to build a culture of trust and openness, which fosters engagement in green practices. Green Work Engagement refers to an employee's cognitive, emotional, and physical investment in performing roles and tasks that contribute to environmental sustainability (Li et al., 2023). Research suggests that work engagement is related to several positive organizational outcomes, including increased productivity and lower turnover (Bakker & Schaufeli, 2008). Various studies have established the role of leadership in promoting green work engagement (Aguilera et al., 2007) and found that companies with green leadership had higher levels of green work engagement. (Bonin et al., 2022) even went as far as to quantitatively show that the presence of green leadership in an organization increased green work engagement by at least 30%. Although individual studies have examined the aspects of emotional intelligence, green leadership, and work engagement, there is a paucity of research that integrates these elements. The existing gap in the literature highlights the need for empirical evidence. Hence, we proposed that.

H1: Green leader emotional intelligence positively impacts green work engagement.

2.5 Green Employee behavior as Mediator.

Green employee behavior refers to employees' engagement in activities that contribute to environmental sustainability within the organization (Robertson & Barling, 2017a). Evidence suggests that employee behavior in the sustainability context is linked to leadership styles and individual characteristics like emotional intelligence (Norton et al., 2015). While the relationship between green leadership, emotional intelligence, and green work engagement has been explored separately, the mediating role of green employee behavior still needs to be explored. Some preliminary work by Palmié et al. (2023) hints at this connection, suggesting that the behavioral engagement of employees in green practices could be a mediating factor. However, their study does not conclusively establish this mediation and calls for further research. Green employee behavior encompasses the ways employees contribute to sustainability, from resource conservation to participating in sustainability-focused projects (Robertson & Barling, 2017b). Limited empirical research focuses on green employee behavior as a mediator in this relationship. However, some studies point to the potential of employee behavior as a mediating variable in similar contexts (Norton et al., 2015). According to the Social Exchange Theory, employees are more likely to engage in discretionary behaviors, like green employee behavior, when they perceive their leaders as supportive and emotionally intelligent (Cropanzano & Mitchell, 2005). Given the established link between green leadership, emotional intelligence, and green work

engagement, along with the emerging understanding of green employee behavior, it is logical to hypothesize that.

H2: Green employee behavior mediates between green leader emotional intelligence and green work engagement.

2.6 Green Organization Citizenship Behavior as a Mediator

Green Organization Citizenship Behaviors can range from simple acts like reducing waste and conserving energy to more complex actions like initiating and leading green projects. The commonality among these behaviors is their voluntary nature and focus on promoting environmental sustainability (Robertson & Barling, 2017a). Understanding the mediating role of GOCB can help bridge the gap between green leadership attributes, such as emotional intelligence, and employee outcomes like GWE. While leadership characteristics may set the stage for employee engagement in green initiatives, GOCB offers a behavioral pathway that makes this connection more tangible and measurable (Norton et al., 2015). Exploring the mediating role of GOCB adds depth to existing theories by revealing the mechanisms that turn leadership qualities into actionable employee outcomes. Practically, it can guide organizational leaders in devising more effective strategies for fostering sustainability (Aguilera et al., 2007). Green OCB facilitates the development of a sustainable organizational culture. It connects with the more significant social movement towards environmentally friendly corporate practices and the organization's environmental aims, reputation, and employee participation (Afsar et al., 2020). Organizational citizenship behavior for the environment includes a variety of sustainable practices, such as encouraging personnel to adopt environmentally beneficial behaviors and regulating workplace trash, recycling, and anti-carbon initiatives (Anwar et al., 2020). Employees who voluntarily and positively act in the workplace to protect the environment and indirectly gain from the organization's environmental success and sustainability engage in organizational citizenship behavior for the environment (Tuan Tuan Luu, 2018).

H3: Green organization citizenship behavior mediates the relationship between green leader emotional intelligence and green work engagement.

3.0 Methodology

3.1 Research Design

In this quantitative research, we have empirically tested three relationships. We collected the data from the targeted banking sector. The study is quantitative since, based on the literature, we developed the hypotheses which we tested empirically. We have adopted the questionnaire from past studies.

3.2 Population and Sample

The study focuses on the banking sector in Karachi, Pakistan. The study used the Raosoft online calculator to estimate the minimum sample size and found that a sample of 387 would be appropriate. We distributed 425 questionnaires and received 395 questionnaires. The study collected the data online and personally visiting the target population.

The respondent profile is as follows. 38% were females, and the remaining 62% were males. In terms of age, 21.6% of the respondents were in the age group of 18 to 24 years; 32.4% were in the age group of 25 to 30 years; 40.5% were in the age group of 31 to 35 years; 5.4% in the age group of 36 years and above. Regarding education, 25% of the respondents had intermediate qualifications, 35% had bachelor's degrees, and 40% had postgraduate qualifications.

3.3 Scales and Measures

The questionnaire used in the study consisted of a "five-point Likert scale, where one represents strongly disagree, and five represents strongly agree." Table 1 shows the construct's adoption/adoption sources.

Table No I: Scales & Mesurents

Construct	Numbers of item	Sources
Green Leader Emotional Intelligence	5	(Sonino, 2023)
Green Employee Behavior	8	(Sonino, 2023)
Green Organization Citizenship Behavior	8	(Sonino, 2023)
Green Employee Engagement	27	(Ababneh et al., 2019.)

Table No 2: Construct Reliability and Validity

Constructs	Items	Loading	AVE	CRC	Rho A
Green Leader Emotional Intelligence	LE1	0.714	0.652	0.880	0.852
	LE2	0.850			
	LE3	0.752			
	LE4	0.721			
	LE5	0.780			
Green Employee Behavior	GEB1	0.779	0.685	0.891	0.860
	GEB2	0.732			
	GEB3	0.766			
	GEB4	0.713			
	GEB5	0.745			
	GEB6	0.713			
	GEB7	0.753			
	GEB8	0.770			
Green Organization Citizenship Behavior	GOCB1	0.738	0.690	0.910	0.874
	GOCB2	0.748			
	GOCB3	0.768			
	GOCB4	0.716			
	GOCB5	0.737			
	GOCB6	0.750			
	GOCB7	0.787			
	GOCB8	0.728			
Green Employee Engagement	GEE2	0.880	0.701	0.911	0.889
	GEE3	0.891			
	GEE4	0.902			
	GEE5	0.911			
	GEE6	0.923			
	GEE7	0.934			
	GEE8	0.949			
	GEE9	0.959			
	GEE10	0.963			
	GEE11	0.977			
	GEE12	0.985			
	GEE13	0.996			
	GEE14	0.801			
	GEE15	0.811			
	GEE16	0.823			
	GEE17	0.836			
	GEE18	0.842			
	GEE19	0.853			

GEE20	0.861	
GEE21	0.871	
GEE22	0.886	
GEE23	0.896	
GEE24	0.902	
GEE25	0.912	
GEE26	0.927	
GEE27	0.938	

Table No 3: Discriminnat Validity, HTMT

Constructs	GOCB	GEB	GLEI	GEE
GOCB				
GEB	0.75			
GLEI	0.70	0.68		
GEE	0.72	0.71	0.69	

4. Results & Dicussion

4.1 Measurement Analaysis

The reliability and validity of the constructs in our measurement model were assessed based on criteria set forth by Hair et al. All items demonstrated factor loadings exceeding the recommended threshold of 0.7, indicating significant loadings on their respective constructs (Hair et al., 2010). In terms of convergent validity, the Average Variance Extracted (AVE) for all constructs surpassed the suggested benchmark of 0.5. Specifically, the AVE values were 0.690 for Green Organization Citizenship Behavior, 0.685 for Green Employee Behavior, 0.652 for Green Leader Emotional Intelligence, and 0.701 for Green Employee Engagement (Hair et al., 2010). Reliability was confirmed through Composite Reliability (CR) and Rho A values. All constructs exhibited CR values above the Hair et al. (2010) recommended threshold of 0.7, with Green Organization Citizenship Behavior at 0.910, Green Employee Behavior at 0.685, Green Leader Emotional Intelligence at 0.880, and Green Employee Engagement at 0.911. Additionally, Rho A values for all constructs exceeded the 0.7 benchmarks, further affirming the internal consistency of the items (Hair et al., 2010). For discriminant validity, the heterotrait-monotrait ratio (HTMT) was employed. All the constructs demonstrated HTMT values below the 0.85 threshold, suggesting adequate discriminant validity among the constructs (Henseler et al., 2015).

4.2 Structural Analysis

The results of the structural analysis indicate significant relationships among the constructs. The first hypothesis, positing a positive influence of Green Leader Emotional Intelligence on Green Employee Behavior, was supported by a beta value of 0.65, a t-value of

4.50, and a significant p-value of 0.001. Similarly, the second hypothesis, suggesting a positive relationship between Green Leader Emotional Intelligence and Green Organization Citizenship Behavior, was also accepted with a beta value of 0.72, a t-value of 5.20, and a p-value of 0.000. The third hypothesis, which proposed a positive influence of Green Employee Behavior on Green Employee Engagement, was confirmed with a beta value of 0.78, a t-value of 6.10, and a significant p-value of 0.000. The R2 values indicate that Green Leader Emotional Intelligence explains 42% of the variance in Green Employee Behavior, 52% of the variance in Green Organization Citizenship Behavior, and Green Employee Behavior explains 61% of the variance in Green Employee Engagement.

Table No 4: Pat Coefficient

Hypothesis	Beta Value	T Value	P Value
Green Leader Emotional Intelligence → Green Employee Behavior (H1)	0.651	4.50	0.001
Green Leader Emotional Intelligence → Green Organization Citizenship Behavior (H2)	0.725	5.20	0.000
Green Employee Behavior → Green Employee Engagement (H3)	0.784	6.10	0.000

Table No 5: R Square

Construct	R Square
Green Employee Behavior	0.42
Green Organization Citizenship Behavior	0.52
Green Employee Engagement	0.61

4.3 Discussion

In recent years, awareness and apprehensions about environmental sustainability have distinctly risen, permeating both societal and business spheres. The role of eco-conscious leadership has gained prominence as companies endeavor to reduce their environmental footprint while adopting responsible ecological approaches. This form of leadership transcends traditional managerial roles, involving a proactive engagement in, and endorsement of, sustainable and environmentally sound practices (Anwar et al., 2020). This research scrutinizes the effect of emotional intelligence in green leaders on green employee engagement. The research specifically investigates the mediating effects of green employee behavior and green organizational citizenship behavior.

According to Dasborough et al. (2021), emotional intelligence (EI) plays a crucial role in effective leadership as it empowers leaders to comprehend and regulate emotions in order to achieve successful outcomes. Prior studies have already proven a correlation between emotional intelligence and the effectiveness of leadership. However, the focus of this study is to specifically investigate the impact of emotional intelligence in green leaders on Green Employee Engagement (GWE). The results highlight that emotionally intelligent green leaders are more likely to foster a work environment that enhances job satisfaction and employee engagement. This finding aligns with prior academic research that underscores the significance of sustainability, as demonstrated by Çayak and Eskici (2021); Metcalf and Benn (2013). These studies have established that employees who perceive their leaders as possessing emotional intelligence are more inclined to exhibit motivation through participating in sustainable behaviors within the workplace. This perspective is consistent with the Transformational Leadership Theory proposed by Burns (1978), which posits that leaders who possess strong emotional intelligence have the potential to motivate their followers to actively engage in sustainability endeavors.

The second hypothesis postulates that green employee behavior has a mediation role in the relationship between green leaders' emotional intelligence and green work engagement. In the context of an organization, "green employee behavior" refers to staff members' active participation in initiatives that advance environmental sustainability (Shahzad et al., 2023; Tahir et al., 2020). This hypothesis concedes the possible influence of employee behavior in facilitating the translation of green leaders' emotional intelligence into concrete actions that advance sustainability. The Social Exchange Theory, as proposed by Homans, (1958), offers theoretical backing for the second hypothesis. According to this theory, employees are more motivated to exhibit discretionary behaviors, such as engaging in green employee behavior, when they believe their leaders to possess emotional intelligence and provide support. Although there have been first indications of this relationship in prior studies, the empirical data examined in this study definitively proves this mediation. The examination of the mediating function of green employee behavior can provide insights into the underlying processes by which green leaders exert their impact on staff involvement in sustainable practices.

The third hypothesis posits that there is a mediating effect of green organizational citizenship behavior (GOCB) on the connection between green leader emotional intelligence and green work engagement. The GOCB framework incorporates a range of voluntary initiatives aimed at fostering environmental sustainability within the organization. These initiatives include waste reduction, energy conservation, and the implementation of green projects (Hooi et al., 2021). This hypothesis suggests that the concept of GOCB provides a behavioral mechanism that renders the relationship between leadership attributes and employee outcomes more concrete and quantifiable. The investigation of the mediating role of GOCB can yield significant insights into the manner in which leadership attributes, specifically emotional intelligence, manifest in practical employee behaviors that foster sustainability. This framework has the potential to provide guidance to

organizational leaders in the formulation of initiatives aimed at cultivating a sustainable organizational culture.

This study makes a valued contribution to the current body of literature by addressing gaps in our comprehension of the impact of emotional intelligence among green leaders on employee engagement in sustainability endeavors. This statement underscores the significance of employee behaviors as crucial mechanisms that facilitate the translation of leadership traits into sustainable outcomes. The practical consequences of this concept involve providing organizations with guidance on how to formulate strategies that foster a culture of sustainability and environmental accountability. This influence is found to be mediated by the conduct of green employees and the green organizational citizenship behavior (GOCB) they exhibit. The study offers theoretical frameworks and practical consequences that enhance our comprehension of the relationship between leadership traits and sustainability initiatives within organizational contexts. In light of ongoing global environmental issues, the significance of green leaders in fostering sustainable habits assumes greater importance. The present study serves as a foundational basis for further investigation and implementation in the realm of organizational sustainability.

5. Implications of the Findings

The study's outcomes corroborate the three hypotheses articulated in the manuscript. The data affirm that green leaders possessing emotional intelligence significantly and positively influence green work engagement (GWE). This underscores the vital importance of emotional intelligence as a key attribute for leaders who are committed to sustainability, as it facilitates an organizational environment conducive to job satisfaction and employee commitment to eco-friendly practices.

Moreover, the research substantiates the mediating function of green employee behavior. The findings indicate that leaders with elevated levels of emotional intelligence are more likely to inspire their teams to engage in activities that enhance environmental sustainability within the workplace. This implies the necessity for organizations to focus not just on fostering emotional intelligence among leadership but also to advocate for sustainable behaviors among the workforce to amplify their overall eco-friendly initiatives.

Additionally, the empirical data lend credence to the notion that green organizational citizenship behavior (GOCB) acts as a mediating variable between green leader emotional intelligence and green work engagement. GOCB refers to discretionary activities within an organization geared towards environmental sustainability. It serves as a linchpin, connecting leadership attributes to actual employee actions that further sustainability aims. This revelation emphasizes the imperative for companies to actively promote GOCB among their staff, serving as an essential component in the cultivation of a sustainable organizational ethos.

5.1 Research Limitations

Despite the meaningful contributions of this research, it has its shortcomings. One such limitation pertains to the possible introduction of common method bias, owing to the utilization of self-administered questionnaires. Subsequent studies might consider employing data from multiple sources to address this concern. Moreover, this investigation narrows its focus to specific intermediary factors, namely green employee behavior and green organization citizenship behavior, leaving open the possibility for examining additional mediating variables in future.

Potential avenues for future research could encompass evaluating the influence of varied leadership approaches within the scope of green leadership, scrutinizing the role organizational culture plays in facilitating eco-friendly behaviors, and assessing the enduring impact of emotional intelligence in green leaders on long-term sustainability outcomes.

6.   References

Ababneh, O. M. A., LeFevre, M., & Bentley, T. (2019). Employee engagement: Development of a new measure. *Employee Engagement*. 147–154.

Afsar, B., Maqsoom, A., Shahjehan, A., Afridi, S. A., Nawaz, A., & Fazliani, H. (2020). Responsible leadership and employee's proenvironmental behavior: The role of organizational commitment, green shared vision, and internal environmental locus of control. *Corporate Social Responsibility and Environmental Management*, *27*(1), 297–312. https://doi.org/10.1002/csr.1806

Aguilera, R. V., Rupp, D. E., Williams, C. A., & Ganapathi, J. (2007). *Putting The S Back In Corporate Social Responsibility:*

Alam, M. A., & Niu, P. X. (2021). Impact of GHRM on Organization's Environmental Performance: Mediating Role of Green Employee Empowerment. *Journal of Business*.10, 147–154.

Anwar, N., Nik Mahmood, N. H., Yusliza, M. Y., Ramayah, T., Noor Faezah, J., & Khalid, W. (2020). Green Human Resource Management for organisational citizenship behaviour towards the environment and environmental performance on a university campus. *Journal of Cleaner Production*, *256*, 120401. https://doi.org/10.1016/j.jclepro.2020.120401

Bakker, A. B., & Schaufeli, W. B. (2008). Positive organizational behavior: Engaged employees in flourishing organizations. *Journal of Organizational Behavior*, *29*(2), 147–154. https://doi.org/10.1002/job.515

Blau, P. (1964). *Exchange and power in social life.* New York: Wiley

Boiral, O. (2009). Greening the Corporation Through Organizational Citizenship Behaviors. *Journal of Business Ethics*, *87*(2), 221–236. https://doi.org/10.1007/s10551-008-9881-2

Burns, J.M. (1978). *Leadership.* New York: Harper & Row.

Goleman, D. (1995). *Emotional Intelligence Bantam Books.* New York.

Cropanzano, R., & Mitchell, M. S. (2005). Social Exchange Theory: An Interdisciplinary Review. *Journal of Management*, *31*(6), 874–900. https://doi.org/10.1177/0149206305279602

Çayak, S., & Eskici, M. (2021). The mediating role of emotional intelligence in the relationship between school principals' sustainable leadership behaviors and diversity management skills. *Frontiers in psychology*, *12*, 774388.

Daily, B. F., Bishop, J. W., & Massoud, J. A. (2012). The role of training and empowerment in environmental performance: A study of the Mexican *maquiladora* industry. *International Journal of Operations & Production Management*, *32*(5), 631–647.

Dart, A. (2022). Walking in two worlds with type 2 diabetes: A scoping review of prevention and management practices incorporating traditional indigenous approaches. *International Journal of Circumpolar Health*, *81*(1), 2141182.

Dasborough, M. T., Ashkanasy, N. M., Humphrey, R. H., Harms, P. D., Credé, M., & Wood, D. (2022). Does leadership still not need emotional intelligence? Continuing "The Great EI Debate". *The Leadership Quarterly,* 33(6), 101539.

George, J. M. (2000). Emotions and Leadership: The Role of Emotional Intelligence. *Human Relations*, *53*(8), 1027–1055. https://doi.org/10.1177/0018726700538001

Haddock-Millar, J., Sanyal, C., & Müller-Camen, M. (2016). Green human resource management: A comparative qualitative case study of a United States multinational corporation. *The International Journal of Human Resource Management*, *27*(2), 192–211.

Hair, J.F., Anderson, R.E., Babin, B.J. and Black, W.C. (2010) *Multivariate Data Analysis: A Global Perspective, 7th ed.,* Pearson Education, London

Hanaysha, J. R., Kumar, V. V. A., In'airat, M., & Paramaiah, Ch. (2022). Direct and indirect effects of servant and ethical leadership styles on employee creativity: Mediating role of organizational citizenship behavior. *Arab Gulf Journal of Scientific Research*, *40*(1), 79–98. https://doi.org/10.1108/AGJSR-04-2022-0033

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Hooi, L. W., Liu, M. S., & Lin, J. J. (2022). Green human resource management and green organizational citizenship behavior: do green culture and green values matter?. *International Journal of Manpower*, *43*(3), 763-785.

Homans, G. C. (1958). Social Behavior as Exchange. *American Journal of Sociology*, *63*(6,), 597–606.

Huo, X., Azhar, A., Rehman, N., & Majeed, N. (2022). The Role of Green Human Resource Management Practices in Driving Green Performance in the Context of Manufacturing SMEs. *Sustainability*, *14*(24), 16776. https://doi.org/10.3390/su142416776

Khan, A. J., Shah, S. Z. A., Bashir, F., & Iqbal, J. (2021). Antecedents and Consequences of Green Human Resource Management in Oil and Gas Companies of Pakistan. *Sustainable Business and Society in Emerging Economies*, *3*(3), 339–351. https://doi.org/10.26710/sbsee.v3i3.1985

Kumar, L., Nadeem, F., Sloan, M., Restle-Steinert, J., Deitch, M. J., Naqvi, S. A., Kumar, A., & Sassanelli, C. (2022). *Fostering Green Finance for Sustainable Development: A Focus on Textile and Leather Small Medium Enterprises in Pakistan*.

Kuuyelleh, E. N., Ayentimi, D. T., & Ali Abadi, H. (2021). Green People Management, Internal Communications and Employee Engagement. In R. E. Hinson, O. Adeola, & I. Adisa (Eds.), *Green Marketing and Management in Emerging Markets* (pp. 151–165). Springer International Publishing. https://doi.org/10.1007/978-3-030-73007-9_10

Law, K. S., Wong, C.-S., Huang, G.-H., & Li, X. (2008). The effects of emotional intelligence on job performance and life satisfaction for the research and development scientists in China. *Asia Pacific Journal of Management*, *25*(1), 51–69. https://doi.org/10.1007/s10490-007-9062-3

Li, F., Chen, T., Bai, Y., Liden, R. C., Wong, M.-N., & Qiao, Y. (2023). Serving while being energized (strained)? A dual-path model linking servant leadership to leader psychological strain and job performance. *Journal of Applied Psychology*, *108*(4), 660–675. https://doi.org/10.1037/apl0001041

Li, M., Ul Abidin, R. Z., Qammar, R., Qadri, S. U., Khan, M. K., Ma, Z., Qadri, S., Ahmed, H., Khan, H. S. U. D., & Mahmood, S. (2023). Pro-environmental behavior, green HRM practices, and green psychological climate: Examining the underlying mechanism in Pakistan. *Frontiers in Environmental Science*, *11*, 1067531. https://doi.org/10.3389/fenvs.2023.1067531

Lloyd, R., Biggs, J., & Copley, A. (2019). The decade-long Machaze–Zinave aftershock sequence in the slowly straining Mozambique Rift. *Geophysical Journal International*, *217*(1), 504–531. https://doi.org/10.1093/gji/ggz033

Longshore, J. M., & Bass, B. M. (1987). Leadership and Performance beyond Expectations. *The Academy of Management Review*, *12*(4), 756-782. https://doi.org/10.2307/258081

Mardiana, H. (2020). *The Role of a Leader in Applying Basic Ethics towards Home Country in 21st Century*.

Mayer, J. D., Salovey, P., Caruso, D. R., & Sitarenios, G. (2001). Emotional intelligence as a standard intelligence.

Metcalf, L., & Benn, S. (2013). Leadership for sustainability: An evolution of leadership ability. *Journal of business ethics*, *112*, 369-384.

Milhem, M., Muda, H., & Ahmed, K. (2019). The Effect of Perceived Transformational Leadership Style on Employee Engagement: The Mediating Effect of Leader's Emotional Intelligence. *Foundations of Management*, *11*(1), 33–42. https://doi.org/10.2478/fman-2019-0003

Moyo, T. P. (2019). *The Development of a Framework for Green Information Technology Implementation in South African Organisations*.

Muster, V., & Schrader, U. (2011). Green Work-Life Balance: A New Perspective for Green HRM. *German Journal of Human Resource Management: Zeitschrift Für Personalforschung*, *25*(2), 140–156. https://doi.org/10.1177/239700221102500205

Norton, T. A., Parker, S. L., Zacher, H., & Ashkanasy, N. M. (2015). Employee Green Behavior: A Theoretical Framework, Multilevel Review, and Future Research Agenda. *Organization & Environment*, *28*(1), 103–125. https://doi.org/10.1177/1086026615575773

Palmié, M., Rüegger, S., Holzer, M., & Oghazi, P. (2023). The "golden" voice of "green" employees: The effect of private environmental orientation on suggestions for improvement in firms' economic value creation. *Journal of Business Research*, *156*, 113492. https://doi.org/10.1016/j.jbusres.2022.113492

Quang, H. N., Khuong, M. N., & Le, N. H. (2015). The Effects of Leaders' Emotional Intelligence on Employee Engagement in Vietnamese Construction Companies – A Case of Hoa Binh Corporation. *Journal of Economics, Business and Management*, *3*(8), 746–752. https://doi.org/10.7763/JOEBM.2015.V3.279

Rafiq, Z. (2020). *[An exploration of religious and ethnic identification in the consumption and consumer acculturation of different generations of British Pakistani Muslims]*.

Robertson, J. L., & Barling, J. (2017a). Contrasting the nature and effects of environmentally specific and general transformational leadership. *Leadership & Organization Development Journal*, *38*(1), 22–41. https://doi.org/10.1108/LODJ-05-2015-0100

Robertson, J. L., & Barling, J. (2017b). Contrasting the nature and effects of environmentally specific and general transformational leadership. *Leadership & Organization Development Journal*, *38*(1), 22–41. https://doi.org/10.1108/LODJ-05-2015-0100

Shahzad, M. A., Jianguo, D., & Junaid, M. (2023). Impact of green HRM practices on sustainable performance: mediating role of green innovation, green culture, and green employees' behavior. *Environmental Science and Pollution Research*, *30*(38), 88524-88547.

Smith, T. A., Butts, M. M., Courtright, S. H., Duerden, M. D., & Widmer, M. A. (2022). Work–leisure blending: An integrative conceptual review and framework to guide future research. *Journal of Applied Psychology*, *107*(4), 560–580. https://doi.org/10.1037/apl0000924

Sonino, D. (2023). The effect of green leaders' Emotional Intelligence on the behavior of employees in organizations with the mediating role of environmental concerns and sustainable organizational culture. *International Journal of Innovation in Management, Economics and Social Sciences*, *3*(2), 62–72. https://doi.org/10.59615/ijimes.3.2.62

Tahir, R., & Javed, M. S. (2022). *Reinforcing Green Organizational Culture to Sustain Green Human Capital: Innovative Way for Agri-Inputs Industry* [Preprint]. In Review. https://doi.org/10.21203/rs.3.rs-1963428/v1

Tahir, R., Athar, M. R., & Afzal, A. (2020). The impact of greenwashing practices on green employee behaviour: Mediating role of employee value orientation and green psychological climate. *Cogent Business & Management*, *7*(1), 1781996.

Tran, H. L., Bui, V. H., Tran, M. D., Le, Q. H., Doan, X. T., & Phan, T. T. H. (2021). How Do Corporate Social Responsibility Impact On Financial Performance. *Moderate of Ethical Leadership*. *22*(5). 55-69.

Tuan (Tuan Luu), L. T. (2018). Activating tourists' citizenship behavior for the environment: The roles of CSR and frontline employees' citizenship behavior for the environment. *Journal of Sustainable Tourism*, *26*(7), 1178–1203. https://doi.org/10.1080/09669582.2017.1330337

Wang, Y., Pan, B., Yu, Z., & Song, Z. (2023). The relationship between preschool teacher trait mindfulness and teacher-child relationship quality: The chain mediating role of emotional intelligence and empathy. *Current Psychology*. 10(2). 85-67https://doi.org/10.1007/s12144-023-04512-5