

**Leading the Green Path: Unraveling the Relationship of Green Inclusive
Leadership with Green Creativity and Green Knowledge Sharing: A
Moderated Mediation Model**



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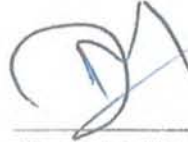
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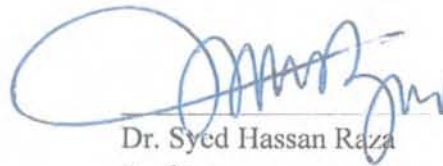
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DEDICATION

This thesis is dedicated to my parents.

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TABLE OF CONTENT

CHAPTER 1	1
INTRODUCTION	1
1.1 Background	1
1.2 Problem Statement	4
1.3 Research gap	5
1.4 Research Objectives	6
1.5 Research Questions	7
1.6 Significance of the Research	8
1.7 Chapter Summary	9
1.8 Thesis Organization	9
CHAPTER 2	11
LITERATURE REVIEW	11
2.1 Understanding of the Leadership Concepts	11
2.2 Defining Leadership	13
2.3 Types of Leadership	15
2.3.1 Transactional Leadership	15
2.3.2 Transformational Leadership	17
2.3.3 Inclusive Leadership	19
2.3.3.1 Green Inclusive Leadership	22
2.4 Green Human Resource Management	25
2.4.1 Green Recruitment and Selection	28
2.4.2 Green Training and Development	31
2.4.3 Green Reward and Compensation	33
2.4.4 Green Performance Management and Appraisals	36
2.5 Green Creativity	38
2.6 Environmental Consciousness	42
2.6.1 Environmental Consciousness and co-related variables	47
2.7 Knowledge Sharing	48
2.7.1 Green Knowledge Sharing	49
2.8 Theoretical Framework	54
2.8.1 Social Exchange Theory	54

2.8.2 Green Inclusive Leadership and Green Creativity	56
2.8.3 Green Inclusive Leadership and Green Knowledge Sharing	58
2.8.4 Green Inclusive Leadership and Green Human Resource Management	59
2.8.5 Green Human Resource Management as Mediator	60
2.8.6 The Moderating role of Environmental Consciousness	63
2.9 Chapter Summary	65
CHAPTER 3	66
RESEARCH METHODOLOGY	66
3.1 Introduction	66
3.2 Research Philosophy	67
3.3 Research Approach	67
3.4 Research Design	68
3.5 Nature of the study	69
3.6 Population of the Research Study	71
3.7 Unit of Analysis	71
3.8 Sampling Procedures	71
3.9 Simple Random Sampling	71
3.10 Sample Size	72
3.11 Data Collection	72
3.12 Research Instruments	72
3.13 Demographic information	72
3.14 Green Inclusive Leadership Scale	73
3.15 Green Human Resource Management Scale	73
3.16 Green Creativity Scale	73
3.17 Green Knowledge Sharing Scale	73
3.18 Environmental Consciousness Scale	73
3.19 Reliability and Validity of the instruments:	74
3.19.1 Reliability	74
3.19.2.1 Content Validity	76
3.19.2.2 Construct Validity	76
3.19.2.3 Convergent Validity	76
3.19.2.4 Discriminant Validity	76
3.20 Data Analysis	77

3.21 Normality Test	77
3.22 Multicollinearity Test.....	77
3.23 Homoscedasticity Test	77
3.24 Normal distribution of Error Terms Test	78
3.25 Descriptive Statistics	78
3.26 Structural Equation Modeling.....	78
3.26.1 Moderation Analysis	80
3.7 Statistical Software	81
3.8 Chapter Summary	81
CHAPTER 4.....	82
DATA ANALYSIS	82
4.1 Introduction	82
4.2 Initial Assumptions	82
4.3 Normality of the Data	82
4.4 Homoscedasticity	83
4.5 Normal Distribution of Error Term.....	83
4.6 Multicollinearity	84
4.7 Factor Analysis	84
4.8 Demographical Information of the participants	85
4.9 Descriptive Statistics	87
4.10 Measurement Model	87
4.10.1 CFA for Green Inclusive Leadership	87
4.10.2 CFA for Green Human Resource Management	88
4.10.3 CFA for Green Creativity.....	90
4.10.4 Revised CFA for Green Creativity.....	91
4.10.5 CFA for Green Knowledge Sharing.....	92
4.10.6 CFA for Environmental Consciousness	92
4.10.7 Revised CFA for Environmental Consciousness.....	93
4.11 CFA for overall measurement model, reliability and validity	94
4.12 Structural Equation Modeling.....	97
4.12.1 Testing of direct and indirect hypothesis through mediation	98
4.12.2 Direct Relationships.....	99
4.12.3 Mediated Relationships	100

4.12.4 Moderation Analysis	101
4.13 Chapter Summary	104
CHAPTER 5	105
DISCUSSION	105
5.6 Theoretical Implications	109
5.7 Practical Implications	111
5.8 Limitations and Future Research	112
5.9 Conclusion	113
5.10 Chapter Summary	114
6. References	115
Appendix A	171
Appendix B	185

LIST OF TABLES

Table 1. Reliability of the variables	75
Table 2. Descriptive Statistics	78
Table 3. Normality of the data	83
Table 4. Factor Analysis.....	84
Table 5. Demographic information of respondents	86
Table 6. Calculations for overall CFA Measurement Model	96
Table 7. Convergent Validity	97
Table 8. Discriminant Validity	97
Table 9. Total direct effects	100
Table 10. Total indirect effects	101
Table 11. Model summary for interaction term GIL x EC.....	102
Table 12. Effects of GIL and EC on GHRM.....	103
Table 13. Model summary for interaction term GHRM x EC.....	103
Table 14. Effects of GHRM and EC on GC	103
Table 15. Model summary for interaction term GHRM x EC.....	103
Table 16. Effects of GHRM and EC on GKS.....	104
Table 17. Summary of hypotheses status	104

LIST OF FIGURES

Figure 1.Theoretical Framework	54
Figure 2. Measurement Model of GIL	88
Figure 3.Measurement Model of GHRM	89
Figure 4.Measurement Model of GC	90
Figure 5. Revised Measurement Model of GC	91
Figure 6.Measurement Model of GKS	92
Figure 7.Measurement Model of EC.....	93
Figure 8. Revised Measurement Model of EC	93
Figure 9. Overall CFA Measurement Model.....	95
Figure 10. Structural Equation Model.....	99

LIST OF ABBREVIATIONS

GIL	Green Inclusive Leadership
GHRM	Green Human Resource Management
GC	Green Creativity
GKS	Green Knowledge Sharing
EC	Environmental Consciousness
SEM	Structural Equation Modeling
CFA	Confirmatory Factor Analysis
GFI	Good of Fit Index
CFI	Comparative Fit Index
RMR	Root Mean Square Residual
RMSEA	Root Mean Square Error of Approximation
TLI	Tucker Lewis Index
NFI	Normed Fit Index

ABSTRACT

This research highlights the importance of green inclusive leadership in IT industry of Pakistan. This research aims to investigate what is the effect of green inclusive leadership on employee conduct such as green creativity and green knowledge sharing using green human resource management as a bridge between them and environmental consciousness as a moderator. The nature of the research is quantitative. The data was collected from various software houses in twin cities. 480 questionnaires utilizable questionnaires were collected. The data was analyzed using SPSS25 and SmartPLS4. SEM was done in SmartPLS and moderation was done in SPSS using the Hayes process. The findings supported the hypotheses. It was a cross-sectional study. The theoretical and practical implications, limitations and imputations for future research have been discussed in this research. According to the findings Green Inclusive Leadership is positively related to Green Creativity and Green Knowledge Sharing. Green Human Resource Management plays an important role in bridging the relationship between Green Inclusive Leadership, Green Creativity and Green Knowledge Sharing. Environmental Consciousness catalyzes the above-mentioned relationship.

Keywords: *Green Inclusive Leadership, Green Human Resource Management, Green Creativity, Green Knowledge Sharing, Environmental Consciousness, Social Exchange Theory*

CHAPTER 1

INTRODUCTION

1.1 Background

Contamination environmental retrogression and global warming putting legit issues to the world, necessitating organizations to protect the environment and put efforts to keep the environment sustainable (Alvarado et al., 2018; Pham et al., 2020; Jahanger et al., 2021; Kamal et al., 2021; Nguyen et al., 2021; Khan et al., 2022a; Usman et al., 2022). Organizations are creating and executing eco-friendly regulations and policies to improve their environmental governance. As a result, the pro-environment conduct of the employees is being encouraged by the organizations due to the increasing ecological and resources utilization concerns accompanied by the introduction upright legislations about the environment sustainability (Cheema et al., 2020). Recently greening of the administration and organizational approaches has gained popular industrial domain and scholars so that the impact of industrial wastes and other hazardous chemicals churned out by firms and products. According to the recent research it is proposed that if information technology (IT) and computer practices are made eco-friendly, it may reduce carbon emission, dumping tasks and energy depletion in the workplaces (Bai et al., 2017; Ojo et al., 2019). As a result, in academic and industrial areas there is a shift in the point of attention from general consideration on eco-friendly business into greening the functionalities of various areas i.e., environment friendly innovation (Zailani et al., 2015), green finance (Przychodzen et al., 2018), GHRM (Yong et al., 2019), and green creativity (Awan et al., 2019). Furthermore, green knowledge sharing is the vital element in the development of sustainable competitiveness for the enterprises (Norton et al., 2014; Gope et al., 2018; Song et al., 2020).

Cell phone technology provides a novel path for sustainability scholars and other environmentalists to evoke the green conduct and consciousness. Such technology allows masses to get rid of the hurdles associated with various strategies such marketing, public conclusion development. Mobile phones can be used anywhere and by anyone (Typhina, 2015). Internet is easily available that's why many people assume it to be an "integrated environment of communicative opportunities" (Madianou, 2014). People can easily connect through mobile; they can easily talk about their needs and necessitates maintaining the social connectedness (Kriem, 2009). Efforts are being made to bring awareness about the sustainability through mobile apps. During contemporary years, digital nudging (Young et al., 2019), gamification (Zailani et al., 2015; Przychodzen, Gómez-Bezares, and Przychodzen, 2018; Awan, Sroufe, and Kraslawski, 2019) and persuasive technology (Brauer, Ebermann, and Kolbe, 2016) has given much focus on the encouragement of green behavior (green creativity, green knowledge sharing). Numerous mobile applications promote sustainable behavior in the form of sustainable apps. A Google customer survey revealed the productive impact of apps that are highly relevant for eco-friendly and corporate culture administration that includes effective and useful communication (48%) and enhanced creativity among subordinates (30%) or a better utilization of creative abilities (29%) (Arnold, Schiffer, & Chevalier, 2011).

In Pakistan IT encompasses 2.5 to 4.5% of the total GDP of stable prices (OECD 2000). Through the initiation of computer and other technological tools there is a noteworthy growth in country's economy (Nizam et al., 2020). IT devices can help develop faster evaluations about the goods and services (Haftu, 2019). IT tools like smartphones, laptops, computers and other devices help in the improving the knowledge (Kasemsap, 2018). There are several sustainability minded apps in Pakistan. Modulus Tech offers housing with net zero consumption of energy and reduced

levels of CO emissions. Trashit is another eco app that emphasizes sustainability in Pakistan with the help of recycling and composting. It promotes zero waste life-style. Code Green PK is an e-commerce platform that offers 40+ zero waste products ranging from biodegradable cutlery, toothbrushes, soaps, shampoos and clothing. My Water is another mobile application that provides mineral drinking water by purifying it with eco-friendly tools and devices. Various other sustainability promoting apps like Eco Energy and Smart Water Tank are being used in Pakistan (Katalyst labs, 2022).

With growing sustainable practices in the IT industry there is a need to explore what kind of leadership is required for implementing the successful green management in the IT sector. A new form of leadership has been introduced called green inclusive leadership (Bhutto et al., 2021). GIL, an exclusive example of inclusionary headman ship, is characterized as leadership methods that are open, available, and capable of achieving environmental goals using these concepts as a basis (Bhutto et al., 2021). Prior work has found the link between green leadership and green employee behavior but how does it impact the green behavior has not been studied (Quan, Tian 7 Qiu,2022). Inclusive leadership effects creativity and innovativeness (Amabile & Pratt, 2016; Carmeli et al., 2010; Choi et al., 2015; Javed et al., 2019) because such type of leaders showcase the activities that make them available and accessible for the employees (Carmeli et al., 2010). When organization exhibits openness to the knowledge sharing, accessibility to help promote it, trust and empathy then knowledge sharing is encouraged (Hsu, 2012). Furthermore, leaders are not only responsible to convince the employees. Human resource management is also responsible for selecting, hiring, appraising, training the employees, so the polices developed by HRM also have an impact over employee behavior. The green management of HRM is called green human resource management. If the employees know that the intensity of green management in the firm

is high, they will more likely to display green behavior (Quan, Tian & Qiu,2022). Furthermore, leaders who have the strategist stage of consciousness may influence the employees to see, think and act in different ways (Merron et al. (1987).

This study explores the association betwixt green inclusive leadership and green behavior (green creativity, green knowledge sharing) and how does GHRM and environmental consciousness impact this relationship by using the social exchange theory.

1.2 Problem Statement

Pakistan is one of the 10 countries that are severally impacted by climate change (Eckstein et al., 2019) due to the maximal weather conditions such as heatwaves (Saifi & Yeung, 2018, glacial meltdowns, floods, massive smog (Ali, 2021) and super floods (Otto et al., 2022) threatening the national development goals of Pakistan such as air contamination control and availability of clean water (Ali, 2021). The consequences are reverberating within labor landscape, causing notable challenges. Employees lack adequate guidance to navigate these evolving climatic patterns within the organizational framework. This study will explore the pivotal role of a leader in shaping green employee behavior such as green creativity and green knowledge sharing that are instrumental in effectively addressing the multi-dimensional challenges brought about by climate change.

1.3 Research gap

A “research gap” is an issue or subject that has not been discussed completely in the past. Researchers and scholars, expert in a specific field need to make efforts to remove the gaps. This study attempts to close some of the gaps mentioned below.

The first gap is that green inclusive leadership is an emerging topic and there is much more to discover about this leadership style. Prior work has found the association between green leadership and green employee behavior but how does it impact the green behavior has not been studied enough (Quan, Tian & Qiu,2022). Green inclusive leadership has been studied mostly in hospitality industry (Aboramadan, Crawford & Türkmenoğlu,2022), chemical industry (Quan, Tian & Qiu,2022) and textile industry (Javed et al., 2019) but there is less literature available in IT industry. So, this study tries to fill this gap by supervising the survey in IT industry.

The second gap is that in the past literature the term “creativity” has been used capriciously and also in different contexts (Saleh and Brem,2023) so there is a need to further use the term creativity in terms of sustainability. There is also a need to create more incorporated knowledge to understand how inclusive leadership develops creativity (Kaur and Kaur,2022).

The third gap is that green inclusive leadership is linked with creativity and knowledge sharing with variable such as perceived GOC and green service recovery performance (Aboramadan, Crawford & Türkmenoğlu,2022) but they have not been studied with the relation of environmental consciousness.

The fourth gap is that environmental consciousness has been studied with green consumption (Lin & Niu,2018), intellectual capital management (Huang & Kung, 2011), and behavioral intentions (Martínez, Herrero & Gómez, 2018) but consciousness has not been studied with green

inclusive leadership and GHRM, so this study closes this gap to find the relationship between these three variables.

The fifth gap is that the author found a little literature on the catalyzing effect of environmental consciousness (San, Latif & Vaio ,2022) so there is a need to investigate the catalyzing effects of environmental consciousness.

The sixth gap is that the combined relationship of GIL, GC and GKS have been study in European (Italy) context (Aboramadan, Crawford & Türkmenoğlu,2022). While in Pakistan the impact of GIL on knowledge sharing has been studied only in academic context (San, Latif & Vaio ,2022). Thus, for the generalization of the results the research is held in the IT industry in Pakistan and the findings of the research will be applicable to other industries in Pakistan.

The seventh gap is that the consciousness in leaders has not gain much attention (Saragih et al.,2020) so this research strives to close this gap by studying environmental consciousness in leaders.

According to the prior knowledge of the author, the theoretical framework discussed in this study has not been discussed before so this study attempts to close the above-mentioned gaps.

1.4 Research Objectives

The objectives of the study are:

- To understand the influence of green inclusive leadership on green creativity
- To understand the influence of green inclusive leadership on green knowledge sharing
- To find out the link betwixt green inclusive leadership and green human resource management.

- To understand the mediating effect of green human resource management between green inclusive leadership and green creativity
- To apprehend the bridging impact of green human resource management between green inclusive leadership and green knowledge sharing
- To apprehend the catalyzing effect of environmental consciousness between green inclusive leadership and green human resource management
- To understand the catalyzing impact of environmental consciousness between green human resource management and green creativity
- To understand the catalyzing impact of environmental consciousness between green human resource management and green knowledge sharing

1.5 Research Questions

- Does green inclusive leadership impact green creativity?
- Does green inclusive leadership impact green knowledge sharing?
- Does green inclusive impact green human resource management?
- Does GHRM mediate the association between green inclusive leadership and green creativity?
- Does GHRM bridge the association green inclusive leadership and green knowledge sharing?
- Does environmental consciousness catalyze the association between green inclusive leadership and green human resource management?
- Does environmental consciousness catalyze the association between green human resource management and green creativity?

- Does environmental consciousness catalyze the association between green human resource management and green knowledge sharing?

1.6 Significance of the Research

The significance of the study is as follows:

- The study demonstrates the thorough apprehension of green behavior. It shows the importance of GHRM practices (green training and development, green recruitment and selection, green performance management and green appraisal) in developing the pro-environment behavior among employees. Such practices are still at developing stage in countries like Pakistan and there is need to discuss them in details. The findings of this research are supposed to facilitate the developing countries to enhance the pro-environmental conduct.
- This study has different perspectives. First it studies how green inclusive leadership results in green creativity and green knowledge sharing. Then it measures the catalyzing effect of GHRM. Lastly, this work helps to understand the importance of environmental consciousness and how it catalyzes the green behaviors among leaders and employees.
- For the preservation of environment organizations must invest in HR, however the execution of green human resource practices in Pakistan's IT industry are under researched. This research pays attention to green practices to achieve the sustainability objectives in the IT firms.
- The industrial managers from various industries can benefit from this research for the clearer apprehension of what kind of leadership is needed to execute the GHRM practices.

- This study makes the managers and the employees ponder that they should develop environmental consciousness and awareness about the environmental issues in order to improve the environmental performance.

1.7 Chapter Summary

Pakistan is one of the 10 countries that are severally impacted by climate change (Eckstein et al., 2019). Digital technology provides a new path for pro-environment researchers and other environmentalists to evoke the green behavior and mindfulness. To combat the climate change there is a need for the organizations to embrace the eco-friendly policies such as green human resource management. GHRM practices, along with motivation and attempts are important to enhance the ability of the organizations to move towards pro-environmental behavior (Yong, Yusliza, Jabbour, et al., 2019).

This research attempts to find out how GIL impacts green creativity and green knowledge sharing with the catalyzing influence of environmental consciousness and mediating effect of GHRM. The results are supposed to help the developing countries to enhance the pro-environmental conduct. The combined relationship of green creativity and green knowledge sharing with green inclusive leadership has not been studied with environmental consciousness before so this study fills such gap.

1.8 Thesis Organization

Thesis chapters are organized mentioned:

Chapter 1: This chapter discusses the detailed background, problem statement, research objectives and questions, research gaps, significance and summary of the chapter.

Chapter 2: This chapter discusses the literature review and research model in detail.

Chapter 3: The methodology of the research is discussed in this chapter.

Chapter 4: This chapter discusses the details about the gathered data and analysis process.

Chapter 5: This chapter entails the discussions, conclusion, limitation of the research and ideas for further research.

CHAPTER 2

LITERATURE REVIEW

2.1 Understanding of the Leadership Concepts

Leadership is extremely esteemed and actively demanded by masses. Learning how to lead successfully requires something that people are interested in (Mulvaney, 2018). An analysis of leadership related studies found that various theoretical positions have explained the leadership process and its complexities. Different researchers call leadership a relationship that is based on data-driven decision making, while some academics conceptualize it as a quality or behavior. Qualitative and quantitative approaches have studied leadership. It has also been examined in a range of conditions, such as special category and both small and large organizations.

As was already said, there are numerous methods to conceptualize leadership (Batmanghlich & Cameron, 2014). Is leadership an attribute, a capability, a way of acting, a strategy, or something else? Learning is rewarding, but so is participating in the dialogue that has been going on among leaders, scholars, and researchers. First, the definition of a head man is explained as "a group member whose influence on group attitudes, performance, or decision making greatly exceeds that of the average 15 members of the group" (Simonton, 1994). This is among the earliest definitions of leadership. But in this case, everyone in the group ought to be on an equal footing and comparable, which is not usually the case. Leadership situations occasionally call for a speech that is moral, logical, objective and distinctive. Simply put, leadership means attempting a thorough comprehension to provide the best services possible.

This is directly related to a taxonomy system (Bass B. M., 1990) the idea for leadership. In some definitions, this taxonomy system places leadership at the center of category procedures.

This assumption places the headman at the middle of the category, giving him or her ability to convince everyone there. This is actually more appropriate for their/their position. According to another set of descriptors, leadership can be a personality feature or a combination of special qualities that belong to a certain person (Stogdill, 1948). Such distinctive qualities facilitate leaders persuade individuals to fulfill the aims and purposes of the organization. These abilities or the impact they bring with them may be linked to power. Formal headmanship, which can be broadly split into two types: formal and informal, is the subject of this theory. This leader-follower connection revolves heavily upon power (Day & Antonakis, 2012). Such vantage point helps leaders utilize their ability to convince followers and control the group. However, it's vital to keep in mind that any sort of influence is a form of power that can be used for good or bad. Similar to this, when talking about insightful leadership, having the insight and persuading others to support it are both forms of control. The nature of perception is the only thing that can clearly differentiate between two of them. The transformative technique is a superb example of visionary leadership since it inspires everyone to go above and beyond what is anticipated or required of them. Leaders motivate their followers to accomplish above and beyond what is asked of them by fostering a taste of shared curiosity and enlightening them with the vision. Headmanship can be defined as an expertise or as a set of expertise that give someone the apprehension and expertise needed to succeed as a leader. Because this perspective emphasizes the relational or communicative competencies of a leader, skills—whether they are learned or innate—are required to obtain a leadership position. Once more, it looks like it will be challenging to split them.

Leadership is can also referred to as a "the action or a behavior" rather than a "set of adaptive talents" or a "role." Such thinking holds that a leader is the one who decides what is necessary to improve a group. It is possible to think that a leader either naturally possesses "positivity" or that

they must learn it so that they can share or guide. After that, leadership was viewed as a strategic instrument or gadget for carrying out schemes and conclusions (Waqar & Siddiqui, 2015). It systematically arranges resources and motivates them to provoke followers' interests, maintain their engagement, and meet their needs while promoting common goals. Other research results (Northouse, 2016) indicate that thinking of leadership as a process may be more advantageous from all perspectives than from just one. Because different leaders exhibit different trajectories of the behaviors when going about their daily business, it is hard to categorize it as an unchanging attitude, ability or expertise approach. As a result, experts have used a variety of words and concepts to characterize it in line with their beliefs and personal experiences (Rieckmann, 2016).

2.2 Defining Leadership

It would be appropriate to revisit a famous study that offered itinerary record detailing a concise history about the change in leadership over the course of the preceding century. The study that assessed the expositions created between 1900 and 1990 and generated 200 different categories for the construct of leadership is shown here, along with a discussion of leadership in the twenty-first century.

During 1927 in a conference of leadership it was said that "the ability to impress the will of the leader on those led and induce obedience, respect, loyalty, and cooperation" (Moore, 1927, p. 124) was a crucial element of effective leadership.

1930s - the blending of a person's distinct personality traits and of people in a group.

1940s: The conduct a person has in charge of organizing group pursuits (Hemphill, 1949). In a mean time, "Drivership" or coercive headmanship was differentiated from persuasion-based leadership (Copeland, 1942).

In the 1950s, group theory was still in use and was used to define leadership as what group leaders do. Efficacy, that defined the leadership by the capacity to convince overall group efficacy, and headmanship as a partnership that creates common objectives, based on which leadership was defined on the basis of the behavior of the leader.

1960s - Seeman (1960) underlined that action that impacts people towards shared objectives is the widely accepted exposition of leadership.

When the organizational behavior approach gained popularity in the 1970s, headmanship was described as "initiating and maintaining groups or organizations to accomplish group or organizational goals" (Rost, 1991, p. 59). -The highly significant understanding of leadership, however, came from Burns (1978), who wrote: "Leadership is the reciprocal process of mobilizing by persons with certain motives and values, various economic, political, and other resources, in a context of competition and conflict, to realize goals independently or mutually held by both leaders and followers" (p. 425).

1980s - Domination The phrase "influence" was possibly the one that appeared the most frequently in definitions of leadership in the 1980s. To differentiate headmanship from administration, academics maintained that it must be an independent impact. Traits (Waterman and Peters, 1982), which reemphasized leadership attributes, served as the impetus for the leadership-as-excellence movement. Ultimately, many people's assumptions about leadership are rely on a particular direction. - Modification. Burns (1978) has the credits of creating a movement that characterized leadership as a transformative operation by asserting that leadership occurs "when one or more people communicate with each other in such manner that leaders and admirers uplift each other to the greater standards of motivation and morality" (p.83).

2.3 Types of Leadership

2.3.1 Transactional Leadership

According to Kuhnert and Lewis (1987), the commonly used method to describe transactional leadership is as an exchange of cost and benefit between leaders and followers. Any item of value that lies among the subordinate's intended payment for services rendered and the ownership or control of the leader constitutes the exchange or transaction (Yukl & Van Fleet 1992). Assignable Headmanship needs leaders to communicate to manage assignments and projects with the collaboration of personnel so as to assure that larger managerial goals are fulfilled (Bass 1974: 341). Such type of relationship develops only if both parties can accept that there exist the hierarchical differentiations and adopt this type of exchange.

An underlying presumption of the headman/subordinate interaction is that employees are encouraged by awards and retributions (Kuhnert 1994). In spite of the disadvantages of this style being identified by various studies of leadership, transactional leadership is still a popular among managers and headmen. On the continuum between leadership and management, this technique unquestionably leans more towards management (MacKenzie, Podsakoff, & Rich 2001).

James MacGregor Burns (1978) defined transactional leadership as the initial phase of communication among leaders and subordinates. Contrary to transformational leadership, transactional leadership is when someone approaches others in order to exchange highly prized goods (Tavanti, ,2008). Most leader-follower interactions are naturally transactional; leaders influence people in an effort to trade things, such as jobs for votes or subsidies for performing a specific task (Burns 1978). Burns classifies this interaction, which is illustrated by a number of case studies from his historical examination of political leadership practices, as either being of an

economic, political, or psychological nature. Three key characteristics (factors) have been identified as the essence of "transactional leadership":

- a) Contingent Remuneration, which denotes accepting payment in exchange for work; b) high performance rewards; and c) accomplishment rewards. Employees that don't meet expectations face consequences, or "penalties." The entire interaction between a headman and his subordinates is governed by a famous transaction rule, which stipulates that great conduct is rewarded while subpar conduct is penalized (Day & Antonakis, 2011; Antonakis, 2001; Bass, 1990).
- b) The foundation of administration by exception-active is the idea that the team leader continuously supervises the team members, identifying rule infractions and enacting the necessary corrective behavior (Antonakis, 2001; Bass, 1990; Day & Antonakis, 2011).
- c) Management by exception the premise of passive leadership—which is merely one step below laissez-faire leadership—is that the leaders will only take action when rules are being violated in the most extreme cases (Antonakis, 2001; Bass, 1990; Day and Antonakis, 2011). Transformational and transactional leadership categories are complimentary rather than rival leadership philosophies notwithstanding their differences (Bass, 1990; Avolio et al., 1999). Both of these leadership philosophies may be used by one leader, albeit to varying degrees. Headmen may demonstrate both transactional and transformational attributes, but they do so in varied degrees of intensity, giving the appearance that one style is more evident than the other.

Transactional leaders display particular leadership characteristics that are usually linked with the capacity to convince through processes and procedures, solve problems, plan and arrange, and work keeping in mind the limitations of the workplace. Since the transactional leadership style

focuses on the creation and preservation of an agreement, talking skills are essential. The trade can only be successful if there is unambiguous and effective reporting. Leaders must provide detailed job descriptions and work assignments, but followers must be capable of keeping their promises and exceeding expectations. Efficacious transactional leaders are able to: (1) clearly state what are the expectations from employees' conduct; (2) explain the way to fulfil such expectations; (3) outline the standards for assessing their conduct; (4) offer remarks on whether the employees are fulfilling the objectives; and (5) assign prize that are based on the employees' accomplishment of the aims (Bass 1974).

2.3.2 Transformational Leadership

The idea of transformative headmanship was firstly articulated by James Burns in 1978. There are two different kinds of leadership, he claimed: transactional and transformative. According to Burns (1978), "the essence of the leader's power" (p. 294) is the amount that helps leaders satiate - or tend to satiate - particular demands of the followers. According to Burns (p. 4), a transformational leader is also "someone who strives to meet greater requirements and utilizes the fullest ability of the follower." Contrarily, according to Burns, transactional leadership places a heavy emphasis on assignment completion, conclusions, compliance, and the excessive usage of premiums and penalties to affect performance (Tracey & Hinkin, 1996). Bass (1985) identified aura or ideal influence, uplifting motivation, rational stimulation, and individualized consideration as the four basic components of the theory of transformational leadership (Tracey & Hinkin, 1996; Judge & Piccolo, 2004; Deinert et al., 2015).

- a) Charisma or idealized influence: First of all, headmen who express an insight (Rafferty & Gryphon, 2004; Weber, 1968), exhibit a principle that develops clarity about objectives, assignment determination, and the gravity of euphony (House, 1977), and influence others

to do the same (Bass & Avolio, 1994; Tracey & Hinkin, 1996) are examples of charisma or idealized influence. Possessing charisma or an idealized impact that fosters mutual respect, importance, and trust while generating a sense of mission and vision. Transformational leaders act in sharp and creative ways, modelling actions and beliefs that have the greatest impact on them (Antonakis, 2001; Bass, 1990; Bass and Avolio, 1990; Day & Antonakis, 2011). This encourages their followers to engage in self-reflection.

- b) Inspirational Motivation: which clearly states the ultimate goals, communicates high standards, and makes use of symbols that emphasizes effort. A transformational leader, according to Antonakis (2001), Bass (1990), Bass and Avolio (1990), Day and Antonakis (2011), has an insight that inspires and empowers others by establishing the sense that they are capable of going above and beyond what is required. According to Bass (1985), a leader who communicates with their followers using motivational language and emotional appeals is engaging in inspirational motivation. According to Yukl (1981, p. 121), inspiration is "the extent to which a leader creates excitement among subordinates for the work of the group and says things to enhance subordinate confidence in their capacity to successfully complete assignments and achieve group objectives. (Also take into account Rafferty & Gryphon, 2004.) According to Bass (1999, p. 11), idealized influence and inspiring leadership are displayed "when the leader anticipates the ideal future, outlines how to achieve it, establishes a precedent to be followed, sets a high bar of performance, and demonstrates commitment and conviction."
- c) Intellectual Stimulation: requires logical thinking, sound judgement, and problem-solving abilities. The transformational leader emphasizes innovation, creativity, and development in particular while modelling new avenues of apprehension and better avenues to seize

chances (Antonakis, 2001; Bass, 1990; Bass and Avolio, 1990; Day & Antonakis, 2011). Intellectual stimulation, as defined by Rafferty and Gryphon (2004), p. 333, is "improving adherents' engagement as well as understanding of problems and boosting their capacities to reflect about issues in novel perspectives." When a leader behaves in this way, followers are better able to analyze, understand, and research problems; produce original concepts or answers; and locate cutting-edge solutions to problems that may arise at work (Bass & Avolio, 1990).

- d) Individualized Consideration: Each employee (follower) is given attention, and is empowered, directed, and counselled. The transformative leader accepts responsibility for their deeds and acts as a role model for others. The leader demonstrates that they value everyone's personality and commitment to the team's overall effort by allocating tasks in accordance with each subordinate's skills and interests (Day & Antonakis, 2011; Bass & Avolio, 1990; Antonakis, 2001). It is a quality shared by transformational leaders, according to Bass & Avolio (2004), Howell & Hall-Merenda (1999), Judge & Piccolo (2004), where they are attentive to what is being said, perceptive to the needs of the followers, concerned for their success and development, and effective coaches and mentors.

2.3.3 Inclusive Leadership

Choi et al. (2017) and Randel et al. (2018) found that inclusionary leadership actions are focused in creating feelings of transparency, accessibility, connectedness towards supporters and showing the capacity to handle their needs. As being essential to transformational leadership, inclusive headmanship accepts team members' diversity and encourages their feeling of being included to empower the contributions of each member of team rather than emphasizing the need

for team members to incorporate towards group wants or goals (Randel et al., 2018). Knowing the fact that the general management studies are still developing its understanding of inclusive leadership, they already demonstrate a number of behavioral characteristics that distinguish it from other leadership philosophies. Given that inclusive leadership is frequently considered to be an affiliative leadership method, it is often linked with conducts such as displaying transparency and being accessible to subordinates (Choi et al., 2017), appreciating various opinions in group settings, encouraging transparency (Mitchell et al., 2015), and exhibiting to the subordinates that their points of view are esteemed and cherished (Hirak et al., 2012). Randel et al. (2018) claim that through displaying particular headmanship attitude, inclusive leaders encourage a climate where workers feel free to voice their thinking, speak out, or provide feedback. They develop mutually beneficial relationships with their subordinates as well.

The present literature places a strong emphasis on the role that individual diversity among leaders plays in inclusionary leadership. For example, inclusive leadership necessitates affiliative expertise and abilities in order to eradicate discrediting prospects and discrimination while encouraging a cooperative and multifaceted atmosphere that is based on components like pro-diversity ideas and mental abilities (Booyesen, 2014; Randel et al., 2018). According to some study, when leaders are readily available to their followers, they have a psychological feeling of belonging and are given the chance to voice their ideas (Choi et al., 2017).

Since inclusive leadership is founded on relationships, many of the borderline situations for it are also procedure- or context-particular and depend on subordinates' assumption and projections (Booyesen, 2014; Choi et al., 2017). To help followers feel like they belong and have faith in their leaders' availability, for example, leaders could promote the socialization of reciprocity or help build social capital. The intensity of the subordinates with which they assume

a leader to be open and transparent often determines the amount to which the headman encourages a cooperative and synergetic atmosphere. Although there are some minor similarities between inclusionary leadership and other leadership philosophies, inclusive leadership is fundamentally focused on cultivating connections with followers as well as its societal objective of empowering alterations by working to make subordinates sense like they belong and the thoughts, views, and voices they have, are appraised (Choi et al., 2017). The processes of inclusive leadership are no exception to the theory that alternative leadership styles and inclusive leadership produce diverse results (Randel et al., 2018). Inclusionary leaders share characteristics with diversity advocates and humility on a personal level. According to Nembhard and Edmondson (2006) and Randel et al. (2018), inclusive leaders place a special emphasis on fostering a secure atmosphere where all members of the team can be themselves in a multicultural setting. A culture where recognizing and remaining willing to embrace variations is the standard, will be promoted by inclusive leaders. By blatantly highlighting the value of diversity and encouraging greater tolerance to diversity, the negative effects of prejudice between groups may be lessened (Randel et al., 2018). Diverse teams are hence no longer perceived as outsiders but as insiders, strengthening the feeling of belongingness. Creating an environment where people may express their differing viewpoints is necessary for this (Randel et al., 2018; Chrobot et al., 2014). The exploration of these differences and the promotion of the exchange of these varied points of view among staff members are encouraged by leaders.

Inclusive leadership characteristics exhibit openness, handiness, and readiness to followers (Carmeli et al., 2010). People should feel empowered to voice issues or other data that might disrupt prevailing situation as a result of these leadership initiatives. When managers and leaders are approachable and transparent, it lessens the sense of personal risk that could result from

outspoken behavior (Detert & Burris, 2007). Additionally, open and approachable group leaders foster norms that encourage members to respect one another's viewpoints (Ye et al., 2019). When leaders exhibit a broad mindedness to voice, workers will feel that their ideas and knowledge will be appraised and taken into account by those who have the ability to challenge the existing circumstances (Detert & Burris, 2007). As a result, such characteristics support inclusive leadership qualities such as the capacity to develop a sense of belonging and respect for followers' individuality. As a result, the stress on affinity and novelty has an impact on followers' views of the workplace's belonging and distinctiveness, which promotes psychological empowerment and follower identification among work parties, (Randel et al., 2018). This method encourages to foster follower's behavior that are supportive of and consistent with employee voice behaviors, such creativity and job performance.

2.3.3.1 Green Inclusive Leadership

Inclusionary leadership is a style of leadership that prioritizes openness, reachability, and the accessibility of headmen towards their teams (Carmeli et al.,2010). This approach involves managers working thoughtfully with subordinates and promoting their involvement in conclusion-making (Bourke & Espedido, 2019; Hollander, 2012). GIL, an exclusive example of inclusionary headmanship, is characterized as leadership methods that are open, available, and capable of achieving environmental goals using these concepts as a basis (Bhutto et al., 2021). Bhutto et al. (2021) redefined the concept by expanding the attention of inclusionary headmanship towards ecological objectives and exploring the significance of the sustainable style of inclusionary leadership that influences that environment friendly outcomes. Thus, "green inclusive leadership" is a modified type of leadership that exemplifies a contemporary leadership method that includes

mindfulness to new environment friendly ideas, availability to discuss the green goals, and willingness for assistance on the ecological issues the organization faces (Bhutto et al., 2021).

Green-inclusive leadership will foster a culture in which followers will believe they are on an equal footing and collaborate beyond roles, magnitudes, and statistical limitations to address common environmental issues through participatory decision-making (Nishii, 2013). Additionally, by actively taking part in green work activities, green-inclusive leaders show that they are accessible and that they are careful towards the engrossments, presumptions, and emotions of their subordinates (Carmeli et al., 2010; Choi et al., 2015). The subordinates are therefore expected to imitate the leaders by working harder and longer. In addition to increasing group members' sense of belonging, green-inclusive leaders act as examples by recognizing differing points of view and valuing each individual's unique contributions (Randel et al., 2018). Because of this, followers with sense of belongingness are more likely to pick up leadership skills from the leader and display participation and resourcefulness (Randel et al., 2016; Randel et al., 2018).

Vital information about environmental objectives and difficulties is produced by green inclusive leaders who use the shared decision making which may promote the development of an agreed-upon view of the worth of environment-friendly enterprise (Ali et al., 2021; Cao et al., 2023). These leaders are also open and accessible to interact with staff. By treating all employees equally, encouraging involvement, and praising efforts, inclusive leaders can strengthen their team members' sense of belonging (Randel et al., 2018; Ryan, 2006; Pless and Maak, 2004; Nembhard & Edmondson, 2006). Contrarily, when inclusive leaders develop a connection based on trust with people, attend to their needs, and are always accessible to them, employees satisfy their need for affiliation (Carmeli et al., 2010; Hollander, 2009; Nembhard & Edmondson, 2006). GIL can

support sustainable outcomes by fostering socially engaged leadership that promotes confidence and honesty through forthright, heartfelt, and ethically righteous behavior (Crawford et al., 2020).

Inclusive leaders value other people's opinions and are receptive to their feedback. By fostering an environment where workers feel comfortable expressing themselves, these individuals build rapport (Carmeli et al., 2010). Altunoglu and Bulgurcu Gurel (2015) and Sanders et al. (2010) both note that these leaders inspire staff to devise unique, insightful, and valuable ideas because they demonstrate their willingness to listen to them by their behaviors (Carmeli et al., 2010). Creativity and inventiveness consequently grow (Amabile & Pratt, 2016; Choi et al., 2015; Javed et al., 2019). Inclusive leaders encourage employee creativity because they make organizational assets provided to them (Hollander, 2012) and by supporting innovative solutions (Afsar et al., 2014). If we talk about quality-based relationship that inclusive leadership offers, it encourages workers to satisfy job criteria, that includes displaying creativity at work (Sanders et al., 2010), employees receive just incentives. According to the corpus of research inclusive leadership enables subordinates to engage creatively in a range of circumstances (Amabile & Pratt, 2016; Carmeli et al., 2010; Choi et al., 2015). By setting a precedent for others to follow and serving as significant influencers of organizational behavior, leaders can promote pro-environmental thinking (Bass, 1960; Ones & Dilchert, 2012). They can also change how individuals view the environment by demonstrating the pertinent regulations in a peculiar way (Mayer et al., 2010). The leader serves as the organization's main source of moral guidance throughout the working process. If the headman encourages the organization's internal environmental protection effort, takes motive to lead them, and bears viewpoints and proposals that are different from his own, the workmen will be more willingly devoted to the organization's green behaviour (Xing & Starik, 2017). According to research, inclusive green leadership fosters environmentally friendly behavior by changing the

psychological atmosphere of an organization's employees (Bhutto et al., 2021). Inclusive leader promotes equality for employees, values their contributions, and keeps an open mind to people's diversity with their diverse viewpoints and suggestions (Javed et al., 2019).

2.4 Green Human Resource Management

GHRM is a form of HRM in environmental matters (Guerci et al., 2016; Renwick et al., 2013). It comprises hiring people based on their environmental sensitivity while providing them with training and apprehension about how to handle stewardship. Relevant performance assessments in this scenario take into account how well employees do their jobs in a sustainable manner and reward employees who meet green targets (Renwick et al., 2013; Yong et al., 2020). GHRM is a human resource administration plan that is friendly towards environment. Its goal is to guarantee and encourage staff involvement by improving green, increasing efficiency, and lowering costs. Firms will be able to save money and utilize resources more efficiently as a result of this. Work sharing, telecom, digital interviewing, reprocessing, and online training are some examples in this scenario. The protection of environmental and climatic resources has long been a key priority for those making decisions and senior management throughout an array of industry sectors (Hameed et al., 2020). GHRM operations are viewed as a critical progress driver for the improvement of processes and strategies, as well as for boosting sustainable performance, as businesses participate to improve innovation, which forces managers to actively seek innovative approaches to maximize their essential organizational capital, such as HRs (Mousa et al., 2020). Because senior management sees human resources as a strategic asset for company growth, GHRM practices are crucial to an organization's effectiveness. This can lead to creativity and long-running viability, as well as the effectual utilization of internal resources to mitigate risks and obstacles, allowing a firm to stay dominant in its industry (Singh, Gupta, et al., 2019). In order to

develop equilibrium between resource utilization and economic development, businesses must apply sustainable operations to enhance their long-term performance (such as social, economic, and ecological performance) (Mousa et al., 2020).

Governments, official organizations, environmental connections, partners, stakeholders, consumers, workers, and society as a whole have all urged businesses to pursue green policies on a bigger scale to achieve organizational growth, economic and social extension (El-Kasser et al., 2019). Human recklessness at work has the potential to destroy the environment (Ones & Dilchert, 2012). Greening organizations by the interaction between HRM and EM started in the 1990s, Wehrmeyer (1996), who published a book named "Greening people: human resources and environmental management." The requirement for HRM in enterprises to engage in greening initiatives became obvious as the number of such studies increased (Govindarajulu and Daily, 2004; Sudin, 2011). As the key driver in a company to pursue green initiatives, GHRM is related with the HRM functionality (Mandip, 2012; Jabbour & Jabbour, 2016; Bhutto and Auranzeb, 2016). Patel (2014) defines GHRM as an extension of a company's pro-environment administration theology, regulations, and operations for EM implementation. According to Sharma and Gupta (2015), green human resource management is the dimension of HRM practices with the goal to encourage the green utilization of assets, which strengthens the goal of sustainable environment generically and increase employee consciousness and commitment to pro-environment management issues particularly. The advent of green human resource management increases social (i.e., work-life balance), economic (i.e., profit sustainability), and ecological issues (i.e., waste reduction). GHRM has aided in the revolutionary comprehension of the construct of 'triple bottom-line'; GHRM entails behaviors that coincide with the three principles of stewardship for environment, social, and economic balance (Yusoff et al., 2015) and bring lasting advantages

to the organization (Wagner, 2013). Additionally, Jackson and Seo (2010) claimed that organizations that focus on greening human elements may be more helpful, earning a competitiveness (Cherian & Jacob, 2012). Organizations who do not have an extensive program for employing GHRM, on the other hand, may have constraints in the efficacy of their EP (Renwick et al., 2013). Focusing on GHRM entails employing eco-friendly HR practices such as enhancing process competence, lessening and eradicating environmental dispose, and redesigning HR products, instruments, and processes to promote pro-environment behavior; this results in greater productivity and lower expenses. These initiatives will result in projects such as digital filing, ride sharing, job sharing, teleconferencing and virtual interviews, reprocessing, telecommuting, online training, and the development of more power-efficient office buildings (Sharma and Gupta, 2015; Sathyapriya et al., 2013). To achieve GHRM, environmental management and HRM activities are aligned. During this process, businesses change their tactics and efforts towards a more pro-environment business plan (Renwick et al., 2013). Paillé et al. (2014) investigated the interaction betwixt HRM and sustainable growth by analyzing how and to what degree employees assist their organizations in becoming more environmentally friendly. The HR department, according to Kautish et al. (2019), has the power to evaluate and stimulate staff understanding, views, drives, and behaviors in order to promote long-term performance. Organizations would find it easier to apply GHRM to effectively build environmentally friendly employee behavior (Dumont et al., 2017a). Numerous research investigations have addressed employees' environmental perceptions as a fundamental aspect of building green culture and values, including the creation of environmentally friendly product designs, environmentally friendly energy utilization, handling carbon dioxide, waste control, and recycling (Kim et al.,

2019). Greening businesses and safeguarding the environment in an environmentally sound way have become critical factors for decision-makers during the 21st century.

Consequently, novel methods for conventional HRM have developed. Greening of the environment may be prioritized in developing GHRM research studies, and HRM can be a useful instrument for increasing pro-environmental activities (Jabbour et al., 2019). Academics in GHRM have concentrated substantially on the role of HRM in greening organizations (Jabbour et al., 2016). Environmental experts agree on the scale of environmental concerns' consequences (Beck et al., 2018). Despite the fact that HRM operations to meet these environmental concerns have been somewhat sluggish, nations, buyers, and academics are increasingly confronted with green opportunities as well as obstacles (Amjad et al., 2021).

2.4.1 Green Recruitment and Selection

Firms should priorities the recruitment and retention of personnel who are supportive and careful about the planet (Renwick et al., 2013). Consequently, companies need to develop an environmental repute and images based on the assumption that they are environmentally sensitive with the goal to recruit environmentally aware talent (Ehnert, 2009; Kapil, 2015a; Guerci et al., 2016). Organizations need to explicitly communicate the environmentally friendly strategy on their webpages and other nationally accessible channels available to candidates so that the firm's greening attention is plainly visible (Kapil, 2015a; Arulrajah et al., 2015). According to Guerci et al. (2016), green goals can have a considerable impact on attracting new applications. Green recruitment makes sure newly hired employees apprehend the firm's pro-environment culture and share its environmental ideals through extracting candidates' knowledge of the environment, principles, and credence (Renwick et al., 2013). Recruitment messaging needs to contain ecological characteristics (Arulrajah et al., 2015). During the employment analysis process, job

descriptions and employee requirements must demonstrate and underline environmental factors, sustainable successes, and clarify what to expect from prospective green employees (Mandip, 2012; Renwick et al., 2013). It is the procedure of hiring employees within a company that have knowledge, skills, methodologies, and attitudes that are compatible with systems for environmental management. It focuses on environmental conservation throughout the firm while emphasizing on paperless recruitment practices to ensure minimal environmental impact. As a result, many firms have begun to use green recruiting as an invention that capitalizes on their environmental protection mindset, making it a vital method for their successful recruiting operations. Employees must follow green practices in order to meet the stated ecological objectives and other sustainability metrics under the green recruitment strategy. As a result, many firms now undertake paperless interviews in eco-friendly settings. To achieve their organizations' goals, the recruiters adopt green measures as part of their business policies. The major advantage factors human resource and stewardship are retention and satisfaction (Holtom et al., 2008). High-quality employee recruitment is a vital HR responsibility in the "war for talent" (Renwick et al., 2013). Graduates and other employment seekers focus on firms' environment managing practices and conduct and utilize this knowledge when determining which organization to apply to. Organizations recognize that establishing an image as a pro-environment recruiter is an efficient method of attracting fresh talent (Phillips, 2007). Wehrmeyer (1996) and offers numerous techniques that firms could employ to improve green human resource by recruiting and selection procedures. In the beginning, the descriptions of the job ought to stress the significance of environmental reporting. Second, an induction program for freshly hired employees must emphasize the company's environmental sustainability regulations, rules, and green aspirations. Third, assessments must be tailored to evaluate employees' harmony with a firm's environmentally

conscious initiatives. According to Abdull Razab et al. (2015), environment-relevant questions should be a substantial component of the assessment process when interviewing possible applicants.

Furthermore, Arulrajah et al. (2015) said that organizations can enhance their environmental efforts by incorporating ecological assignments into the responsibilities and duties of each employee's work, or by developing new pro-environmental designations to focus solely on the organization's EM aspects. (2013); Opatha (2013) Green recruiting and selection applications are accepted via online channels such as e-mail, online application forms, or the global talent pool. To lessen the ecological effect of travel telephone or video-based interviews are done (Saini & Shukla, 2016). Because recruitment is concerned with getting attention of potential applicants to apply for the job vacancies in firms, this internally or externally attracts employees with not just expertise and apprehension in ecological protection, but also an inclination towards conservation. Recruiting people with a green mindset allows businesses to easily hire specialists having the awareness of sustainable procedures and already have familiarity with fundamentals such as reprocessing, protection, and building a more sensible world (Sanyal, 2017). Ecological concerns affect enterprise's recruitment processes in the United Kingdom, and according to a survey, a company's environmental conduct and repute is taken as a signal by the successful graduates for decision-making when seeking job vacancies (Wehrmeyer, 1996; Oates, 1996; Arulrajah et al.,2015). Siemens, Mannesmann, Bayer, and BASF are prominent German companies that leverage a green reputation and environment-friendly operations to attract highly skilled people (Obaid & Alias, 2015).

2.4.2 Green Training and Development

Numerous businesses provide fruitful employee training programs on how to engage in green activities that reduce or prevent emissions of greenhouse gases, build management and technological skills for ecological security and reconstruction, and lead to greater sustainable development (Mousa et al., 2020). Few businesses acknowledge the need of green development and training initiatives for both business and environmental protection (Amjad et al., 2021), that may help them sustain market success in contrast to others. Today's most difficult challenge for the corporate community is striking an equilibrium between financial success and organizational advancement (Pinzone et al., 2019). Green training sessions also incorporate pro-environment knowledge of ecological problems in order to enhance management and non-management personnel attitudes and behavior (Jeruto et al., 2017). Many companies offer operational employee training programs on how to engage in green activities that reduce or prevent greenhouse gas emissions, develop administration and technological abilities for ecological security and reconstruction, and lead to more sustainable development (Mousa et al., 2020). In comparison to others, few businesses recognize the need of green development and training programs to promote business and environmental protection (Amjad et al., 2021). The corporate community's most difficult task today is establishing a balance between revenue growth and organizational progress (Pinzone et al., 2019). Pro-environment training sessions also include environmental education to improve administrative and non-administrative staff behaviors and mindsets (Jeruto et al., 2017). Green training should try to transform habits and improve emotional involvement in environmental objectives (Gull et al., 2021). Sustainability embedded training includes not only environmentally friendly practices, but additionally the incorporation with performance management systems as part of a green environment plan (Tang et al., 2018).

Sustainable businesses that offer green training to their staff have considerably more knowledgeable, trained, and skilled employees who can carry out the goal of environmental conservation far better than their rivals (Oyedokun, 2019). Similarly, data from a Spanish automobile sector study show that employees receive green training become more technically adept at dealing with environmental issues, which is crucial for long-term success (Bai et al., 2010). Employees who are well-trained and informed help a business to design creative strategies to boost efficiency while reducing the detrimental impact of its actions on society (Mousa et al., 2020). Pro-environment training and development should be prioritized by businesses because it helps them achieve long-term achievement (Yafi et al., 2021). Green training and development are also essential for the effective execution of conservation activities and cleaner manufacturing (Graves et al., 2018). Implementing an environmental strategy in the workplace to promote employee participation and involvement in environmental issues (Ojo et al., 2019) demands employees' expertise, understanding, and understanding of all resources and techniques; this, in the end, requires environmental management planning. Employees may utilize their understanding of managing the environment and paying attention to environmental concerns by taking "green training and development" courses (Hameed et al., 2020). Training would improve workers' understanding of the environment, experience, and capacities (Mousa et al., 2020). Through green awareness management, employees can obtain in-depth sustainability training that will enhance their understanding, abilities, and capacity to deal with difficult situations (Gull et al., 2022).

All personnel are motivated to take part in environmental initiatives after receiving green training (Srivastava et al., 2018). Comprehensive training, according to Dahiya (2020), includes not only effective instruction but also assessment and performance rating systems, promoting an atmosphere that encourages wellness and long-term performance. Environmentally conscious

companies who provide green training to their staff have more mindful, educated, and competent workers who are more fitted to meet the overarching objective of safeguarding the environment than competitors (Gull et al., 2022). Employee involvement in their jobs increases their chances of becoming involved in environmentally conscious corporate operations. Green training at the highest level is associated with greater levels of EP in firms devoted to long-term success and environmental stewardship (Gull et al., 2022). This is largely due to the fact that green training and development equips people with the knowledge and skills they need to progress towards sustainability and towards a more robust tomorrow. Employees may develop skills thorough pro-environmental training via green management of knowledge, enhancing their environmental information, knowledge and talents and ability to deal with tough management of environmental concerns (Sammalisto et al., 2008). Businesses that provide green training create an atmosphere where employees are willing to contribute in social, economic, and environmental activities (Kjaerheim, 2005). Green training comprises not only comprehensive courses, but also assessments and long-term performance monitoring approaches, making it a perfect tool to develop a sustainability-conscious workplace (Renwick et al., 2013).

2.4.3 Green Reward and Compensation

Workmen are awarded for their contributions to the organization via key HRM procedures of rewards and compensation. Such HR procedures are highly efficient avenue of aligning a person's inclinations with those of the organization. According to Ramus (2001), inducements and prizes effect employees' focus to the most essential aspects of their professions and motivate them to work hard to attain organizational objectives. In the framework of Green human resource, rewards and incentives may be considered as viable techniques for incentivizing ecological efforts in organizations. Modern firms are developing systems of incentives that motivate their staff to

participate in environmentally friendly initiatives. According to a CIPD/KPMG survey in the UK, 8% of UK enterprises promote pro-environment behavior with variety of prizes or monetary rewards (Phillips, 2007), and such practices may inspire staff to produce eco initiatives (Ramus, 2002). Forman and Jorgensen (2001) discovered in a similar study regarding the significance of participation of employees in ecological events that employees' dedication towards management programs regarding environment increased when compensation was given to them. Greening the organization's goals can be supported by giving reward to the employees for their ecological stewardship (Jabbour & Santos, 2008a; Jabbour & Jabbour, 2016).

In this approach, EM gets advantage from reward and compensation processes if it emphasizes avoiding undesirable behavior and encouraging environmentally positive behavior (Zoogah, 2011). To that end, pay structures should be intended to convey the company's devotion to EP whilst encouraging stimulating employees' environmentally conscious conduct (Daily and Huang, 2001). This managerial dedication will enhance worker involvement by making them more environmentally conscious and engaging them in eco-initiatives (Calia et al. 2009; Renwick et al., 2013; Daily and Huang, 2001) shown that accolades ought to be connected to the results of greening initiatives within firms in order to improve the efficacy of reward programs focusing on influencing employees' pro-environmental behavior. Furthermore, having recognition rewards available at all levels of the company is critical to their efficacy (Arulrajah et al., 2015). Different categories of green learning and reward practices exist. Rewards can be monetary (bonuses, cash, premiums), non-monetary (sabbaticals, leave, gifts), recognition-based (awards, banquets, exposure, external roles, daily appraisal), or positive (feedback) in nature (Renwick et al., 2013; Opatha, 2013). All such of rewards recognize and promote those in median administration who provoke their employees to embrace pro-environment operations (Kapil, 2015a; Arulrajah et al.,

2015), which contributes the greatest to the stewardship of environment (Renwick et al., 2013). Although incentives and prizes stimulate green behaviors in firms, they will never be completely error-free. The difficulty of assessing environmental activities and performance correctly and fairly may make implementing effective monetary incentives challenging (Fernandez et al., 2003). Businesses, according to Gupta (2018), must design energy-efficient items and procedures, as well as create incentives to accelerate their adoption. He says that by including elements of environmentally friendly management into the pay program, firms may build a pro-environment climate and managers can promote pro-environment conduct among employees by aligning green compensation and incentive systems with the HRM process. Furthermore, managers should encourage employees to submit specific pro-environmental notions relevant to their respective field of work, which can then be integrated into the objective to be fulfilled in the coming year through collective decision-making. Fulfilling such objectives will be the foundation for receiving incentives.

Employee pay plans, according to Liebowitz (2010), can be altered in order to offer incentives depending in part on the worker's evaluation scores on attitudinal and technical skills, as well as rewards for outstanding performance on special projects. Environmental HRM objectives typically include ecological objective and accountability administration, environmental conduct feedback and appraisals, environmental compensation and perks, sanctions for noncompliance, environmental expertise development, routine ecological feedback, and ecological routine encouragement and recognition (Ramus and Steger 2000; Govindarajulu and Daily 2004; Zibarras and Coan 2015; Dumont, Shen, and Deng 2017). According to Lawler et al (2008), green job performance underlines that staff members are content with pro-environment awards and facilitate maintaining ecological conduct. Green awards produce the greatest degree

of job satisfaction, which greatly enhances ecological conduct (Lawler et al.,2008). Pro-environmental awards and incentives impact staff's appreciation for eco-initiatives (Renwick et al, 2013). The use of sustainability-based prizes and recognition has a positive impact on staff desire to seek out green projects (Ramus, 2001).

2.4.4 Green Performance Management and Appraisals

Green performance management (GPM) is a system for assessing workforce conduct in relation to environmental administration (Jabbour, Santos, and Nagano 2008). GPM elements such as providing evaluation and stabilizing metrics have been examined (Jackson et al. 2011; Zibbaras and Coan 2015). It suggested that such GPM measurement ways are ineffective since different organizations have varying structural characteristics, and assets that unitize universal criteria throughout businesses will be haphazard (Marcus &Fremeth 2009). Organizations must develop a deliberate approach to execute GPM. Applying global GPM criteria is thus a major focus for a wide range of businesses. Developing pro-environmental objectives for the employees highlights the significance of transforming ecological objectives into strategies for performance for all employees (Milliman & Clair 1996). Setting green conduct signals entails creating a group of green standards for the members to use in conduct evaluations, including topics such as events involving the environment, environmental duties, CO emission depletion, and environmental issues and policies communication. According to Ahmand (2015), performance assessments are highly important aspect of green performance management for both leaders and employees since they define the procedure and efficacy of subsequent rewards and compensation. Consequently, strong green conduct signals in conduct management systems are essential. Performance Management Systems (PMS) manages subordinate's' conduct to get the EP by evaluating individuals' inputs to EP advancement (Ahmad, 2015).

As a result, PMS promotes the long-term viability of pro-environment administration operations (Jackson et al., 2011) and avoids the deterioration of EM initiatives (Epstein and Roy, 1997). Organizations must establish corporate-wide measures to evaluate the possession of organizational assets, usage, and waste, as well as Environmental Management Information Systems to manage assets movement and environmental investigation, in order to maintain excellent EP (Jackson & Seo, 2010 Arulrajah et al., 2015). As a result, modern organizations have created corporate-wide ecological conduct criteria that are connected with pro-environment information systems to assess EP and green conduct of their employees (Marcus & Fremeth, 2009).

Employees must be given green evaluations and awards based on their green assessments to increase employee involvement and promote eco-friendly behavior (Srivastava et al., 2018). Managers should encourage their staff to express their concerns about their job and their responsibilities as professionals in order to develop green HR practices. Administration should set goals for the following year that include executing these environmentally friendly activities as well as assessing the success of their personnel. The level of excellence of the green output is widely used to measure green performance (Sharma et al., 2015). GHRM can develop green work rating criteria by defining environmental management priorities, assessing environmental actions taken by management, evaluating employees' environmental success stories, and including this green work into their achievement and compensation records (Dahiya, 2020). Furthermore, in order to improve their EP, firms can receive daily feedback on employee success in meeting environmental targets (Arulrajah et al., 2016). Amjad et al, (2021) said that obtaining feedback about worker's green job results will help excite them and increase their involvement in environmental management duties. As a consequence, the human resources department must create an employee performance award program that incorporates behavioral and technological information critical to

environmental stewardship (Ahmad, 2015). HRM should incorporate EP into PMS by defining EM targets and liabilities, scrutinizing EM behaviors, and assessing ecological goal attainment using pro-environmental task ranking as primary signals of career achievement (Sharma and Gupta, 2015; Kapil, 2015b). This pro-environmental task grade must be acknowledged in managers' and employees' appraisal records (Ramus, 2002; Prasad, 2013; Renwick et al., 2013). Moreover, in order to improve EP, managers have to give routine evaluation to employees or teams regarding their participation in the fulfillment of environmental objectives (Arulrajah et al., 2015; Jackson et al., 2011); such evaluation may enable employees in developing their apprehension, expertise, and competency. Discussing assessment findings with subordinates about how productively they are working towards ecological goals, as stated by Govindarajulu and Daily (2004), is critical for employee willingness and their engagement in EM tasks will be enhanced. As stated by Harvey et al. (2013) and Kapil (2015b), companies can additionally offer an online database and audits that allow workers to point out their own EP and create a chance for employees to contribute and recommend practical solutions to make the organization greener.

2.5 Green Creativity

The out of the box and help ideas given by people who work together are called creativity (Amabile,1988), the ideas include several things, it may be a tangible thing, any service, some procedure. The full concept of social and psychological factors that are required for a creative response is called creativity. Field of work-related abilities, innovativeness related procedures, and internal task motivation are three of the four components that are specific to each domain. The social context in which the person is employed constitutes the fourth factor. Green creativity is defined as "the development of new ideas about green services, tangible goods, operations, or environmentally friendly practices that are considered to be distinctive, unusual, and useful." It is

highly esteemed process that fosters the sustainable evolution and develops innovation to help the organizations in maintaining their image (Zameer et al., 2020). Green creativity leads to inventiveness, promotes pro-environment policies and helps in conserving the cultural legacy (Bhutto et al., 2021). It is a vast term that entails economic, ecological and social element (Gürlek & Koseoglu, 2021). The definition of innovativeness is the capacity to develop a series of creative conduct and products using expertise (Tierney, Farmer, and Graen, 1999) that causes the development of a beneficial and helpful novel good or service, scheme, approach, or operation through people working jointly in a perplexing social system (Woodman, Sawyer, & Griffin, 1993). Shalley and Gilson (2004) define creativity as the ability to develop fresh and possibly helpful ideas concerning an organization's goods, behaviors, offerings, or operations. The effective execution of fresh ideas is defined as innovation. As a result, innovation is an essential source of competitive edge over time for firms (Barczak, Lassk, & Mulki, 2010; Osterloh & Frey, 2000; Amabile,1988). Creativity is essential for new product development success (Griffin & Page,1996). Integrating imaginative thinking with the idea of sustainable growth has become important to firm performance in such an environmentally conscious culture (Chen,2010).Businesses should nurture organizational inventiveness in order to devise innovative solutions because creativity is as the key to innovation (Halbesleben et al.,2003).Green goods, environmental services, environmentally friendly procedures, and green practices are all conceptual extensions of GC (Chen &Chang,2013).It is thought to be creative, novel, and practical. In today's context, GC is crucial as the foundation for business environmentally conscious creativity execution and development.

Effectual GC can foster organizations and community fulfills long-term ecological growth while also gaining a competitive advantage by responding rapidly to crises (Chen &Chang, 2013).

According to Chen and Chang, (2013). Employees' knowledge, technical abilities, competence, and talent (the first component, domain-relevant skills), as a result, improve. The second part, inventiveness-relevant operations, is made up of personality traits, a propensity for taking chances, mental models, and divergent thinking (Fürst & Grin ,2018). These factors support the growth of creative thinking. The third element, internal task motivation, is the primary driver of creative activity, according to 40% of scientists (Amabile, 1997). Workers display more creativity when they believe the task to be exciting, involving, and demanding, according to Amabile, who asserted that the fundamental idea of creativity is internal motivation for the job (Amabile, 2012). The fourth element is the social environment, which she defined as the social or work environment and external factors that may encourage or discourage internal motivation and innovation (Amabile, 2012). According to Mittal and Dhar (2016) and Ogbeibu et al. (2020), green creativity is the capacity to generate fresh ideas that are ecologically sustainable. According to other studies (Jaiswal and Dhar, 2015; Tung, 2016; Wang et al., 2013), a number of external factors, such as supervisory support, an environment that fosters innovation, and leadership, can inspire people to be creative. The essential component required to develop unique solutions is creativity (Chen and Chang, 2013; Halbesleben et al., 2003). While creativity has traditionally been thought of as unique and valuable ideas, innovation is built by creative ideas regarding improved procedures, behaviors, or products in a workplace climate (Amabile et al., 1996; Anderson et al., 2014). Innovation is typically seen as the initial stage towards organizational creativity (Anderson et al.,2014). Implementing ideas is a key component of creativity that is idea-driven and innovative. Creativity is a significant element that expresses people's personalities and abilities to execute their professions in particular settings and improves organizational performance, according to prior research (Shalley et al., 2004). In many of the firms where workers do not get the clear-cut

guidance about the schedules and other job events, employees often must pinpoint problems (which tend to occur in an evolving and repetitive way), understand them, and look for the solution that fits the context the best (Jonassen, 2001). As a result, creativity brings original, novel, and useful answers to issues. It also forms the basis for idea generation. Developing green products, developing sustainable ecological conduct, (Anser et al.,2020) are just a few instances of the pro-environmental results that businesses may achieve with the help of green innovation. Similar to this, green creativity demonstrates employees' capacity to perform job obligations in an environmentally friendly manner. Gong et al. (2012) assert that in order to be innovative, people need to have exclusive mental resources (like mindfulness) that serve as a key to innovation. In order for GC to manifest in the form of valuable sustainable conduct, that helps employees recognize and understand ecological issues, gather data, and provide eco-friendly schemes to give away the solution, people should be given access to adequate mental assets such as green mindfulness. Since creativity tends to be an iterative process, personnel have to take responsibility to participate in the creation of new ideas (Horng et al., 2016). An employee may, for instance, have a different viewpoint on a problem at the information finding phase, that requires a review of the problem diagnosis and information search phases in order to develop a solid knowledge.

Therefore, in order to generate original ideas, employees have to adjust obstacles as well as exposure to business reality and the importance of context at each level (Marrocu & Paci, 2011). According to Mittal and Dhar (2016), because they create corporate pro-environment growth objectives and promote a culture of green innovation, managerial behaviors and qualities are crucial for encouraging green creativity. Employee green creativity is defined as their spontaneous, free decisions to find new, ecologically responsible methods to tackle problems (Mittal and Dhar, 2016). According to Kim (2017), administrations' apathetic approach to environmental policy

tends to lead to fewer environmental responses, and on occasion, they just decide to ignore environmental issues. Green creativity is essential for the process of creating innovations if we are to protect the environment. According to Hunt and Morgan (1995), an organization with innovative ideas results in an excellent conduct of product creation because the novelty in a novel product creation team, responds effectively to the different needs of clients, resulting in outstanding product creation conduct (Deshpandé, Farley, & Webster Jr., 1993). GC is favorable to GDP (Chen et al., 2016). Green product creation, according to Zhang and Li (2019), would contribute in environmental conservation while also functioning as a strategy for firms to boost the additional worth of their products. To address the growing and recurrent ecological needs of consumers in the environmental protection surroundings, firms embrace environmentally friendly creativity plans of action as development objectives, generating new eco-friendly products to boost their organization's branding and ensure their continued market survival.

2.6 Environmental Consciousness

Zelezny and Schultz (2000) define ECO as the psychological factors that affect people's propensity for environmentally friendly behaviors. ECO arose among people who avoided purchasing specific products due to their environmentally harmful effects in the 1960s in the West (Grunert & Juhl, 1995). Consumers eventually became so sensitive that they avoided purchasing products that were hazardous to the environment as this mindset became entrenched. This pushed companies to be determined to making eco-friendly goods (Sharma & Bansal ,2013); Pudaruth et al.,2015; Connell ,2011; Huang & Kung ,2011; Buysse & Verbeke ,2003). It is a complex system of ideas and beliefs that advance social consciousness as well (Monhemius, 1992; Wimmer, 1992). In the context of business organizations, environmental consciousness as a type of civil direction is more applicable because it reflects the way that a product is produced by the company for the

environmental advantages while reducing its detrimental impact on the climate (Kang & James, 2007).

Environmental consciousness is defined as an intricate construct that is a part of a person's belief system and consists of cognoscible, attitudinal, and behavioral elements (Schlegelmilch et al., 1996). Environmental consciousness, according to Dembkowski and Hammer-Lloyd (1994), is the subjective apprehension a consumer has about how her actions will affect the environment. Environmental comprehension, referred to as "a general knowledge of facts, concepts and relationships concerning the natural environment and its major ecosystem," is a crucial component of internalizing pro-environmental values and beliefs as well as the activation of personal values that lead behavior, according to Sanchez and Lafuente (2010).

Schahn and Holzer (1990) assert that two categories of environmental comprehension exist: physical and abstract. While abstract apprehension refers to expertise about ecological issues or problems, such as drives, fixation, and so forth. Concrete knowledge is behavioral therapy apprehension that can be used and put into practice.

Abstract environmental apprehension is necessary for anticipating ecological action. According to Sanchez and Lafuente (2010), the emotive element of environmental consciousness is essential to forecast environmentally aware user behaviors, which can vary from reprocessing goods to green buying. It demonstrates the environmental concerns of a person, specifically their perception of environmental degradation. Crosby et al. (1981) provided an alternate definition of ecological concern as a particularly productive behavior towards environmental protection. Later, drawing from the study of Van Liere and Dunlap (1981), ecological concern was termed as an overarching or broad mindset that has a secondary impact on conduct through evident intent.

Zimmer et al. described ecological concern as "a general concept that can refer to feelings about many different green issues" in 1994. It illustrates what people's attitudes are towards the environment generally.

According to Milfont's definition from 2007, environmental attitude is a "psychological propensity" that may be understood by looking at how people perceive or hold views regarding the environment as a whole. It basically makes a reference to an environmental awareness level of people (Tan, 2011).

It is argued that a general attitude that comes before more particular attitudes, intentions, and acts is crucial to understanding environmental consciousness. According to Shrumetal et al. (1995), a person's general environmental attitude can be summed up as their level of interest or care for environmental, ecological, or energy-saving phenomena. It essentially encapsulates one's ecological worldview, which takes into account how people relate to nature and has been demonstrated to be an early indicator of green behavior (Stern, 2000).

Environmental consciousness also manifests itself in some behavior, and it stands to reason that, the behavioral consequences will either be more generically green or more product-peculiar and it depends on the extent to which a person has environmental consciousness. It stresses even more how important it is to examine both general and product-specific pro-environment attitudes because previous studies have indicated that many environmentally friendly behaviors have their own factors. Consumers who strongly believe that their environmentally aware conduct will have a productive effect are expected to participate in such actions to support their environmental concerns, as consumer concern for environmental problems may not always reflect into green behaviors. Prior work has identified either an ordinary or a weak link between environmental frame of mind and green conduct in terms of attitude-behavior incongruence (Mostafa, 2007). Hines et

al. (1986/1987) discovered, on the other hand, that a lower association between attitude and behavior can be assigned to the operationalization of frame of mind as a common perspective on the environment instead of specific environmental attitudes. Furthermore, only attitudinal aspects can't always anticipate actual conduct (Foxall, 1984; Tarrant & Cordell, 1997; Antonides & Van Raaij, 1998). As a result, psychological elements such as an individual's anxieties, expectations, and emotional responses may be other factors driving pro-environmental activity. Environmentally conscious conduct is assessed by someone's emotional "judgement" related to the results of his activities on the biophysical atmosphere (Bruhn, 1978). As a result, that is not always a consequence of simple intellectual vision into proper behavior (Urban, 1986).

Furthermore, scholars have looked into a few more factors in order to provide explanations for the various categories of green behaviors, which range from common (such as reprocessing or preserving) to more particular (such as purchasing only green products).

Previous research has looked at the relationship between cost and benefit, presumed consumer effective (PCE), socio-psychological, statistical, amount of customer engagement, and an urge to pay to explain changes in green behavior. This does not diminish the significance of mindsets; rather, a larger structure could be available to explain the causes encouraging green mindful conduct (Lee & Holden, 1999). Kinnear et al. (1974) claimed that user's faith that only an individual's attempts can bring a change, referred to as "perceived consumer effectiveness" or "PCE," impacts a person's desire to participate in environmentally conscious buying behavior. PCE is separate from environmental concerns or attitudes, which are defined as "the assessment of oneself in the context of the issue" (Berger & Corbin, 1992). Previous research has identified PCE as among the most significant predictors of environmentally conscious consumer behavior (Straughan & Roberts, 1999; Roberts, 1996). Stern (1992) established four distinct ecological

norms or directions, in addition to attitudes, as indices of environmental care. The first proportion was represented by the new environmental paradigm (NEP), a new style of thinking (Dunlap et al., 1978). The second value orientation links ecological issues to anthropocentric altruism, which believes that masses are concerned with regards to the quality of environment largely because they feel that an unhealthy environment jeopardize people's health. Environmental concern is expressed as a self-serving concern in the third value orientation. Finally, environmental concerns are seen as the outcome of an underlying cause, such as religious values or post-materialistic ideas. In a summary, ecological issues have been defined as an assessment or mindset towards someone's own or other facts, or behavior with environmental repercussions (Weigel & Weigel, 1983). Apart from ecological concerns, McIntosh (2009) emphasizes environmental governance as a component of an individually held value known as consumer environmentalism. It essentially demonstrates an individual's strong emotions regarding community's responsibility in ecologically aware purchase decisions. The possibility of a person influences the behavior of others is referred to as environmental advocacy. Objects connected with popular advocacy practices such as persuading people to alter their conduct, boycotting, giving off money, and lobbying are included. It indicates how enthusiastically a client is eager to engage in environmentally beneficial activity that inspires others to do the same.

In accordance to the suggested structure for relating environmental consciousness to green behavior, personal pro-environment conduct and ecological support assessing consumer's awareness about sustainability both appear to depict behavioral interests towards environmentally friendly products.

2.6.1 Environmental Consciousness and co-related variables

Saying there is a direct link between environmental consciousness and green conduct is oversimplified. According to Schwepker and Cornwell (1991), people's views and intentions about the purchasing of products with environmentally friendly packaging may alter as they become aware of the environmental issue (in this case, the solid waste problem). Therefore, those who are not right now in favor of environmentally aware buying might become people for sustainably packaged goods if people can be influenced to believe that an issue exists.

A few socio-psychological characteristics were also found to be helpful in identifying consumers with low and high buy intentions for these goods, according to the study. Stanley and Lasonde (1996) investigated the impact of ecological problem participation on general and peculiar class of ecologically aware behavior, that includes consumer behavior. They discovered that people who are highly participative in ecological problems are more likely to gauge the actual criteria of any specific conduct and contribute in a different category of ecological behaviors, involving buying, usage, and ejection, than less participative people. They participate in activities that call for specialized expertise or include information-based obstacles to action. It seems that the projection of environmentally conscientious customer behavior may be discouraged by issue involvement as opposed to problem awareness. For example, someone may agree that reprocessing is beneficial, but until they think that ecological problems are important or related to one self to them, they are not expected to get the knowledge necessary to engage in recycling.

2.7 Knowledge Sharing

Knowledge is an important organizational asset that gives a sustainable competitiveness in a cut throat and vigorous economy (Foss & Pedersen, 2002; Grant, 1996; Spender & Grant, 1996; Davenport & Prusak, 1998). Corporations have to depend on employment and training processes that concentrate on hiring people with certain expertise, abilities, skills, or capabilities or on aiding workers in gaining the capabilities to acquire a competitive edge (Brown & Duguid, 1991). Firms have to keep in mind how professionals may convey their experience and knowledge to novices (Hinds, Patterson, & Pfeffer, 2001). Firms have to stress and use existing knowledge-based resources more effectively (Damodaran & Olphert, 2000; Davenport & Prusak, 1998; Spender & Grant, 1996). As one apprehension-centered project, information sharing is the crucial process by that helps employees to contribute towards information usage, inventiveness, and the organization's competitive edge (Jackson et al., 2006). Sharing information with workers and within and between members enables firms to use and capitalize on apprehension-based assets (Cabrera & Cabrera, 2005; Damodaran & Olphert, 2000; Davenport & Prusak, 1998).

Knowledge sharing and combination have been demonstrated to be beneficially linked to expense cuts, more swiftly finalization of innovative product development initiatives, team efficiency, company creativity abilities, and company conduct, that includes sales expansion and earnings from new tangible and non-tangible goods (Arthur & Huntley, 2005; Cummings, 2004; Collins & Smith, 2006; Hansen, 2002; Mesmer-Magnus & DeChurch, 2009; Lin, 2007d). According to Cummings (2004), information sharing is the source of work knowledge and understanding about how to facilitate others and cooperate with others to solve issues, produce novel concepts, or execute regulations or procedures.

Knowledge sharing can be a documented correspondence or in person interactions with other maestros, or it can take the form of documenting, arranging, and gathering expertise for others (Cummings, 2004; Pulakos et al., 2003). Although the term "knowledge sharing" is more commonly used than "information sharing," scholars prefer to call it "information sharing" to mention the sharing with other people that takes place in experimental work where contributors receive the lists of material, modules, or programs. Knowledge sharing is not the same as knowledge shifting and exchange. Knowledge shifting requires both the knowledge source to provide knowledge and the knowledge recipient to acquire and apply knowledge. Traditionally, the phrase "knowledge transfer" explains the flow of information among various components, groups, or workplaces rather than among individuals (Szulanski, Cappetta, & Jensen, 2004). Although the terms "knowledge exchange" and "knowledge sharing" are interchangeable (Cabrera, Collins, & Salgado, 2006), knowledge trading involves both knowledge sharing and knowledge seeking (or workers contributing knowledge to other workers).

2.7.1 Green Knowledge Sharing

There has been a lot of focus on the ecological concerns. This is because of the researchers who have been attempting to develop consciousness about the shrinking natural resources (Kumar & Barua, 2022). When the organizations succeed in managing the knowledge of their processes and operations only then they can lead other organizations (Aamir et al., 2021). Knowledge sharing is basically the knowledge provider sending knowledge to the apprehension implore to enable others to learn and build new abilities (Senge,1998). During the learning process, knowledge sharing is a sort of exchange behavior (Darr & Kurtzberg, 2000; Wijnhoven,1998). According to Hendricks (1999), an organizational person trades information with other people while benefiting from them. Davenport and Prusak (1998) characterized knowledge sharing as supporting groups

in locating the knowledge they required via the exchange method for team knowledge, rather than just exchanging knowledge. Knowledge sharing helps team building. Nancy (2000), said that knowledge sharing entailed passing on details and expertise to other member in order to develop learning chances and motivate people to study. Green knowledge sharing refers to the intensity with which an organization's workforce share green knowledge in order to improve the organization's environmental sustainability (Lin & Chen, 2017). Several factors such as humans, enterprise's climate, technology, appraisals affect green knowledge sharing (Abbas,2020a). Prior study has highlighted the significance of managing knowledge in the organizations (Lopes et al., 2017; Dezi et al., 2019). Knowledge management is famous to influence many conduct outcomes (Bhatti et al., 2022). The most crucial part of information management, however, is information sharing (Rubel et al., 2018). Prior literature studied the individual and organizational levels of information sharing (Vrontis et al., 2021; Bhatti et al., 2022). Workers may generate "collaborative" knowledge through the sharing of their professional information with fellow workers (Jabbour & de Sousa Jabbour, 2016; Teh & Yong, 2011; Song et al,2020). Sharing facts, expertise, and understanding to solve problems; establishing and implementing novel approaches, regulations, or practices (Chen et al., 2018). Employers can encourage their staff so that they can use both implicit and explicit information to solve problems by fostering a knowledge-sharing culture (Ali et al., 2018). According to pro-environmental studies, information and transference are essential components for successfully affecting employees' green conduct and preserving companies' competitiveness in the pro-environmental economy (Gope et al., 2018). Employees may share ecological information and participate in green knowledge sharing (Lin & Chen, 2017). Workers are inclined towards distributing environmental details and knowledge, extending learning prospects, and inspiring others to learn and develop novel green knowledge with the goal

to participate in GKS (Rubel et al., 2021a). Knowledge sharing necessitates the development of knowledge performance, such as knowledge usage (Zaim, Muhammed & Tarim, 2019). As a result, if knowledge is not transferred or shared, it is underutilized and loses value (Hidding & Catterall, 1998). In any case, people are always the key to knowledge; "people" in an organisation are the most significant element in information transmission and knowledge development. Personal information is transformed into organizational knowledge when it is transferred to other members of the organization, which is the actual goal of organizational value promotion (Nonaka & Takeuchi, 1995). People in an organization may be inspired to perform in new avenues, provide better or innovative ideas, and boost their innovativeness when they get motivated by information sharing (Davenport & Prusak, 1998; Cross & Parker, 2004; Yli-Renko, Autio, & Sapienza, 2001). Knowledge sharing is viewed as not just an important aspect of supporting employees' creative behaviors and assignments (Cheng et al., 2019; Abukhait, Bani-Melhem & Zeffane, 2019; Wang, Yang & Xue, 2017) but also as a crucial instrument for sparking creative cognition and, as a result, updating ideas into creative skills (Mura, Lettieri, Radaelli, & Spiller, 2013). Internal information exchange improves in-house strategy and aids in the development of an organization's innovative approach (Chen, Wang, & Wang, 2018). Thornhill (2006), added that information is important in the creative operations. To be creative, workers have to get and share information through communication with one another. Sosa (2011), demonstrated that knowledge exchange among workers can improve personal professional experience and abilities, generate innovative ideas, and boost others or their own innovation, all of which led to enhanced work performance. Sharing knowledge can help others acquire successful action capabilities and behavioral actions (Senge, 1998). As a result, knowledge sharing among members of an organization would increase creativity (Heidary Dahooie, Afrazeh, & Mohammad Moathar Hosseini, 2011; Kremer, Villamor,

& Aguinis, 2019). Individual ingenuity can be increased by knowledge sharing, which can subsequently be used to improve workplace performance (Amabile, 1996). As a result, it is obvious that academic and industrial interest in information sharing has increased. Because of its impact on organizational conduct, knowledge exchange has been selected as a standard to evaluate expediency and creative practices (Florea, Cheung, & Herndon, 2013). Modern organizations must comprehend how to increase their employees' ability to communicate intra-organizational knowledge. This is among the most difficult challenges (Devanport & Prusak, 1998). As a result, in case of such an environmental-conserving environment, company information exchange based on conservation and pro-environmental concerns will be regarded as green knowledge sharing. GKS is the activity of corporate people who desire to exchange knowledge and expertise regarding environmental concerns with others, encourage learning prospects, and motivate other members to study and produce new knowledge for each other. Information sharing practices, according to Almahamid et al. (2010), have an important beneficial effect on organizational competitiveness. According to Skinnarland and Sharp (2011), receiving and sharing information are related to a firm's competitiveness. Additionally, Abdul-Jalal et al. (2013) studied that knowledge sharing impacts organizational competitive advantage. This study offers a seven-item scale to assess 'green knowledge sharing,' which is based on de Chennamaneni and Teng's (2006) idea of knowledge exchanging behavior. According to Chen and Chang (2013a), green competitive advantage is an instance whereby firms take up certain positions in environmental leadership or innovative green practices where their competitors are unable to replicate their successful pro-environment strategies and can benefit long-term from these successful pro-environment plans of action. Taylor (1999) describes management of knowledge as the procedure of transforming a firm (library) from its existing knowledge-hustled state to an information-based system.

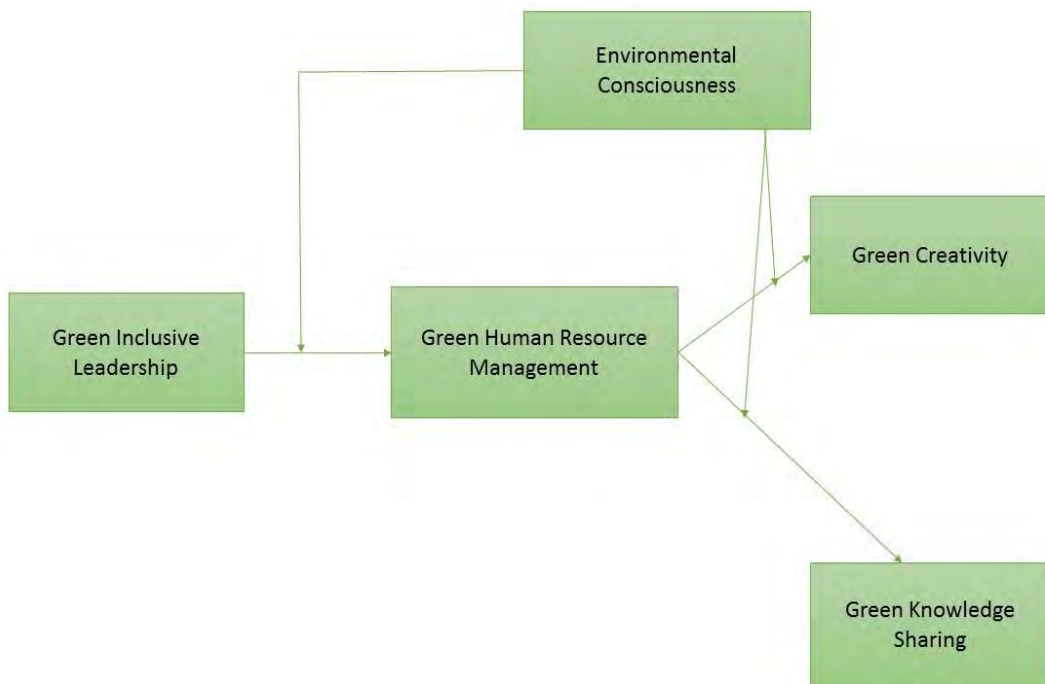
Defining knowledge as explicit, implicit, or tacit, according to Koenig (2012), is a far more delicate and important classification. Tacit knowledge is intimate knowledge that would be exceedingly hard to concretize. Explicit knowledge is knowledge that has been codified and is provided in a tangible form. The essential concept that is not communicated in a material way but could be made plain is said to as latent. Knowledge management, according to Koenig (2012), comprises of events learned databases, expertise location, and networks of practice. To summarize, management of knowledge is the administration of a group of resources, that includes the skill and experience of individual workers. Information management, according to Uhlaner et al. (2007), is a process-based viewpoint that represents ways for gathering or creating knowledge. Businesses must gather and organize green information so that it may be shared throughout the organization. Green knowledge acquisition in product/service design, as well as product/service green advantages representation, can make a difference. Organizations may aim to provide possibilities for environmental principles to be incorporated into actual business modules by first obtaining and structuring sustainable information. Additionally, businesses should enhance employee awareness of environmental issues. Employee green education is a low-cost yet effective technique for developing momentum and providing green ideas that encourage their services. Knowledge management must produce green knowledge through its personal expertise and creativity in order to foster green service innovation. Green knowledge management is heavily used in the organization's ways to identify, create, gathering, arranging, keeping, distributing, and using green information. The same green operational information may be saved in a pro-environmental information base and used to provide a variety of services.

Knowledge sharing helps the enterprises gain the sustainable competitiveness (Song et al., 2020). Workmen can share apprehension with each other and develop collaborative knowledge (Song et al., 2020).

Wastyn and Czarnitzki (2009) expected enterprises that used specific strategies to succeed in terms of new good sales (product creativity) and manufacturing unit savings (process innovation).

2.8 Theoretical Framework

Figure 1. Theoretical Framework



2.8.1 Social Exchange Theory

This research is based on social exchange theory. Social exchange theory has been used in HRM that studies the relationship between leaders and subordinates (Bos-Nehles & Meijerink, 2018; Gould-Williams & Davies, 2005; Ko & Hur, 2014). GHRM and social exchange

theory are not different from each other (Bibi et al.,2018; Jackson et al.,2014). It is an important theoretical criterion of HRM literature that employees try to pay back to their organization by displaying a better performance and by staying longer in the organization (Islam et al., 2022). Social exchange theory says that social exchange processes cause people to reciprocate. When organization provides resources such as economic, social and emotional, it evokes a sense of responsibility to pay back to the organization (Brown & Mitchell, 2010). The harmonic relationship between leader and members develops when there is an inclusionary leadership as a whole. Therefore, when the employees are provided with social and emotional resources, they will identify themselves with the organization and it will create a sense of kinship and return to the workplace (Jiang, 2020). Carmeli et al (2010) thought that inclusionary leadership is the fundamental element of relational leadership. .According to this theory when workmen feel valued at their work and they exhibit constructive conduct and action and are motivated in an employment relationship (Wayne, Shore & Liden, 1997; Cropanzano, Rupp, & Byrne 2003; Kuvaas & Dysvik, 2010).There exist various social relationships the focus of attention for various scholars is organization (POS) and leaders (LMX) because these are the main social exchange relationships and they develop worthwhile results in the organization (Cropanzano & Mitchell, 2005; Wayne et al., 1997). POS are beliefs of the workers about the degree to which their participation and well - being is valued by the workplace (Eisenberger et al., 1986, p. 501). LXM refers to the liking for the other party, being loyal, respectful, professional and displaying the contributory actions (Dienesch & Liden, 1986). People who have high POS and LXM believe that they will be protected by the organizations even if their novel and new ideas do not work. The resources required for the creative process are more easily available to these employees. These resources are flow of information, liberty of work and more assistance (Khazanchi & Masterson, 2011). They have more

comfort and also the resources are easily available to them that motivates them to indulge in risks and create new notions and deal more diligently under uncertain circumstances at the work (Shalley, 2008). The employees who believe that their social exchange relationship is highly valuable feel highly obligated towards their exchange partners (Blau, 1964). If creative processes are seen as worthy outcome for the workplace, employees will be engaged in the creative process to pay back to the creative behaviors of the organization and leaders (Loi et al., 2014; Yu & Frenkel, 2013). Exchange also includes knowledge sharing that involves sharing of personal experience and knowledge (daily schedule, communication expertise, creativity and interpersonal relationships (Kankanhalli, Tan, and Wei 2005; Peng et al. 2014). Social exchange theory has succeeded in exploring knowledge sharing in many fields (Kankanhalli, Tan, and Wei 2005). According to the scholars there are two reasons why knowledge sharing is a form of social exchange. 1: People have higher expectations about the advantages of knowledge sharing, 2: The duration of the knowledge sharing between the team works last for a longer period so it is considered an extended relationship (Fulk et al. 1996). Furthermore, the consciousness of the leader improves the leader-member relationships (Reb et al.,2014). Consciousness of the leader improves the employee outcomes. A conscious leader knows exactly how to lead the workers in the workplace (Saragih et al., 2020).

2.8.2 Green Inclusive Leadership and Green Creativity

Given that inclusive leadership is frequently considered to be a relational headmanship style, it is linked with conducts for instance, being transparent and accessible to followers (Choi et al., 2017), appreciating various opinions in a group, motivation broad mindedness (Mitchell et al., 2015), and explaining to the workers that their points of view are regarded and valued (Hirak et al., 2012). Radel et al. (2018) claim that by displaying particular leadership behaviors, inclusive

leaders foster an environment where employees feel free to voice their thoughts, speak out, or provide feedback.

Leader's support for employees' pro environmental behavior guarantees that they are allowed to contribute in eco-friendly behaviors and create the pro environmental initiatives. Such actions influence the psychology of the employees and they get motivated to showcase green behaviors (Priyankara et al.,2018). Inclusive leadership effects creativity and innovativeness (Amabile & Pratt, 2016; Carmeli et al., 2010; Choi et al., 2015; Javed et al., 2019) because such type of leaders showcase the activities that make them available and accessible for the employees (Carmeli et al., 2010), and support them so that they can propose new, out of the box and thoughtful ideas (Altunoglu & Bulgurcu Gurel, 2015; Sanders et al., 2010). Inclusive leaders make sure to provide all the organizational resources to the employees that promote the innovation (Hollander, 2012) and also help the employees in promoting and executing the new creative solutions (Afsar et al., 2014). Inclusive leadership offers quality based relationship, subordinates are given rewards that motivates them to complete their job, it also includes being creative at work (Sanders et al., 2010). Creative behavior of the employees in different circumstances is promoted by inclusive leadership (Amabile & Pratt, 2016; Carmeli et al., 2010; Choi et al., 2015). By setting a precedent for others to follow and serving as significant influencers of organizational behavior, leaders can promote pro-environmental thinking (Bass, 1960; Ones & Dilchert, 2012).

Thus, it can be said that GIL supports the employees, promotes the new green ideas, communicates with the employees, takes care of the employees' interests and facilitates them to develop GCRT. The openness, availability and the ability of being accessible to the employees' helps leaders to communicate with the employees in such way that their ability of seeking creative pro-environment solutions to the ecological problems at work increases. Hence, it is proposed

Hypothesis 1: Green inclusive leadership is positively linked with green creativity.

2.8.3 Green Inclusive Leadership and Green Knowledge Sharing

Green knowledge sharing refers to the degree to which an enterprise's workforce share green knowledge in order to improve the enterprise's environmental sustainability (Lin and Chen, 2017). Prior study has highlighted the significance of managing knowledge in the organization (Lopes et al., 2017; Dezi et al., 2019). Knowledge management influences many performance outcomes (Bhatti et al., 2022). Workmen can generate "collaborative" knowledge through the sharing of their professional knowledge with colleagues (Teh & Yong, 2011; Jabbour & de Sousa Jabbour, 2016; Song et al., 2020). Transferring facts, expertise, and know-how to solve problems; establishing and implementing novel approaches, regulations, or practices (Chen et al., 2018).

Knowledge is regarded as the most precious asset and a resource of the organization, that's why sharing knowledge in order to enhance the efficiency of the firm is important for employees. Knowledge is developed in the workplace when employees exchange it with other employees. GIL, an example of inclusionary leadership, has been characterized as leadership methods that are open, available, and capable of achieving environmental goals using these concepts as a basis (Bhutto et al., 2021). When inclusive leaders develop a connection based on trust with people, attend to their needs, and are always accessible to them, employees satisfy their need for affiliation (Carmeli et al., 2010; Hollander, 2009; Nembhard & Edmondson, 2006). Knowledge sharing is not automatic, it depends on the behavior of the leaders (Srivasta et al., 2006).

With the help of inclusive leaders, employees tend to raise their voice and brainstorm their ideas, information, knowledge, experiences and suggestions (Jolly & Lee, 2021). Inclusive leaders facilitate the integration of knowledge by encouraging the flexible opinions (Jolly & Lee, 2021).

Only a right type of leaders can encourage knowledge sharing instead of enforcing it (Staples & Webster 2008; Sheehan 2016).

Hence, it is assumed that knowledge sharing needs an affinitive situation that encourages diversity and promotes social networking (Brachos et al., 2007). When the leader exhibits interpersonal capabilities, it benefits the development of such open environment and GIL is an example of such leadership that is open to diversity and asks the employees to share the information they have to fulfill the environmental organizational objectives. From the above-mentioned arguments, it is proposed that GIL is necessary for the knowledge sharing in the workplace to cope with the environmental issues. So,

Hypothesis 2: Green inclusive leadership is positively linked with green knowledge sharing.

2.8.4 Green Inclusive Leadership and Green Human Resource Management

Leaders and HRM operations impact the behaviors and actions of the employees. When there is green inclusive leadership in an organization the employees get more transparent and detailed information about the ecological objectives and goals. Human resource management connects the organization with employees. The advent of GHRM involves enhancing social (i.e. work-life balance), economic (i.e. profit sustainability), and ecological issues (i.e. waste reduction). GHRM has aided the revolutionary comprehension of the concept of 'triple bottom-line'; that is, GHRM entails behaviors that coincide with the three principles of stewardship of environment, social, and economic balance (Yusoff et al., 2015) and bring lasting advantages to the organization (Wagner, 2013). GHRM hires employees in order to align with the environmental objectives. Organization helps employees by providing the clues of environmental protection. Green inclusive leadership helps in clarifying the organizational objectives with regard to

environment. The operations of employee's performance appraisals, salary design associate green environment responsibility to employee conduct and salary, that will encourage the green environmental protection practices that are promoted by green inclusive leadership (Quan, Tian & Qiu,2022).

Green inclusive leadership helps to employees to develop clearer environmental objectives in the organization. When the GHRM practices that are staff recruitment, training, compensation designs, performance appraisals are implemented within the workplace, workers will be devoted to preserve the environment by displaying protection clues to the environment. Both leadership and management provide the environmental clues to the employees that stresses over the protection of the environment. When there is green inclusive leadership, employees perceive the organization as green. The leadership style determines the organizational image. Green Inclusive leadership fosters the green and environmental protection culture of an organization. HRM and organizational culture are intertwined (Al-Bahussin & Garaihy,2013).

Hence from the above-mentioned arguments it is indicated that GIL leads to the implementation of GHRM that results in green behavior of employees (green creativity, green knowledge sharing). So,

Hypothesis 3: Green inclusive leadership is positively associated to green human resource management.

2.8.5 Green Human Resource Management as Mediator

Not only the leaders have the power to influence the subordinates but human resource management system have the responsibility to recruit, select, evaluate and promote employees so that the polices developed by human resource management can affect the conduct and action of

the workers at work. When the HR department of the organization makes the pro-environment policies and emphasizes on giving attention to eco- friendly development then the employees will give importance to the green principals implemented by the organization. The operations of employee conduct appraisals, salary design link green environment responsibility to employee performance and salary, that will encourage the green environmental protection practices that are promoted by green inclusive leadership (Quan, Tian & Qiu,2022). Green creativity expresses the environmental awareness and the connected employee behavior. The organizations that have the awareness about the environmental issues should encourage GC. The researchers argue that the firms may promote green human resource management to encourage GC (Jia et al., 2018; Ogbeibu et al., 2020). Prior work has established that eco-friendly training is an essential element that is used to make the employees aware and motivated towards enhancing their responsibilities in conserving the environment that ultimately leads to motivate them to learn equivalent expertise (Kim et al., 2020; Ren et al., 2018). Employees get familiar with their responsibility of protecting the environment through training and development. GHRM links the rewards, compensation and appraisals with green behavior of the employees (Kim et al., 2020; Renwick et al., 2016).

Green creativity is expressed as pro-environment behavior (Mittal & Dhar, 2016).so it is supposed that GHRM has effects on GC. Many researchers have discussed the fundamentality of green creativity for sustainability of the workplaces and achieving competitiveness (Provasnek, Sentic, & Schmid, 2017; Saeed et al., 2019). However green creativity is now used as a new term in the context of organizational operations that involves the responsible behavior (Chen &Chang,2013). GHRM practices like training and development; rewards for pro-environment behavior, recruitment and selection processes help the employees to align their actions and

behaviors towards pro-environment practices. They will consider such organizations as ethical and morally right and will suggest unique and novel solutions (Ahmad, Donia, & Shahzad, 2019).

Researchers understand the vitality of managing knowledge in the organizations (Dezi et al., 2019). Knowledge sharing is one of the main elements of knowledge management. When workers exchange the knowledge with others it happens at individual level and it develops synergic knowledge in the workplace (Teh & Yong, 2011). Employees may share environmental information and involve in GKS (Lin & Chen, 2017). Employees are indulged in distributing environmental apprehension and knowledge, extending learning opportunities, and inspiring others to seek and develop new green knowledge with the goal to contribute in GKS (Rubel et al., 2021a).

HRM emphasizes on enhancing the capabilities, apprehension and expertise of the employees, it helps the employees to utilize their skills and contribute towards the organization. HRM most evidently determines how employees transfer their information (Bhatti et al., 2020). This research associates HRM with GKS. According to the research there exists a positive link between HRM and knowledge sharing (Fong et al., 2011). Recent studies (Aklamanu et al., 2016; Sammarra et al., 2017) advocate this assumption.

Based on these above-mentioned studies, it is hypothesized that

Hypothesis 4: Green human resource management is positively linked with green creativity.

Hypothesis 5: Green human resource management is positively linked with green knowledge sharing.

Hypothesis 6: Green human resource management mediates the relationship between green inclusive leadership and green creativity.

Hypothesis7: Green human resource management mediates the relationship between green inclusive leadership and green knowledge sharing.

2.8.6 The Moderating role of Environmental Consciousness

Environmental consciousness is defined as a multidimensional concept that is a part of a person's belief system and consists of cognitive, attitudinal, and behavioral elements (Schlegelmilch et al., 1996). According to the studies leaders at the higher phase of consciousness are good in facilitating the organizational learning (Baron & Cayer 2011). They have the tendency to re-examine the problems and question the perceptions of that problem. Managers who have the strategist stage of consciousness have the capability to convince the employees to see, think and act in different ways (Merron et al. (1987). Such leaders cooperate with the employees so that they can explore their ideas and develop cognitive frameworks (Fisher and Torbert.,1991). Such leaders are able to develop shared understanding about the realities. Conscious leaders are considered more effective and productive (Harris and Kuhnert.,2008). Furthermore, the consciousness of the leader improves the leader-member relationships (Reb et al.,2014). Consciousness of the leader improves the employee outcomes. A conscious leader knows exactly how to lead the workers (Saragih et al., 2020). According to Mazzi et al. (2016) the alignment of GHRM with ecological administration is important because it motivates workmen to generate knowledge and attitude that helps in environmental knowledge.

A worker's consciousness regarding the environmental concerns motivates them to display specific actions that helps in protecting the environment (Yucedag et al.,2018). Employees who are eager and well informed about the ecological concerns like climate change, global warming and contamination of the environment are expected to take the most needed actions in order to

protect the environment (Cheema et al., 2020; Testa et al., 2016). Such employees can promote the green behaviors.

Since GIL and GHRM are proposed to be co-related so it is also proposed that environmental consciousness strengthens the link between the two of them.

Green creativity is the core element in the protection of the environment. According to Kim (2017) “in case of ecological policies the dormant way of management inclines towards the less feedback of the environment and by time they tend to ignore the ecological issues, so for the development of innovativeness green creativity is an important factor for environmental conservation. So, it is proposed that environment consciousness strengthens the green creativity.

Studies say that conscientious individuals are tended to be more responsible, stable, trustworthy, hard-working and success oriented (Barrick & Mount, 1991). It has positive impact on work performance. Individuals with higher conscientiousness show more organizational citizenship (Organ & Ryan, 1995). Knowledge sharing is one of the elements of organizational citizenship that includes dutiful consideration to the organizational perspectives and the group norms that are the attributes of conscientiousness. Conscientious individuals know what are their duties towards society. They have the responsibility consciousness that enhances their interest for environmental sustainability and since conscientiousness is related to environmental consciousness so it is proposed that environmental consciousness strengthens green knowledge sharing (Kaynak& Eski, 2014).

From the above-mentioned arguments, it is proposed that:

Hypothesis 8: The positive relationship between green inclusive leadership and green human resource management is moderated by Environmental consciousness such that the relationship is stronger at higher levels of Environmental consciousness.

Hypothesis 9: Environmental consciousness moderates the link between green human resource management and green creativity.

Hypothesis 10: Environmental consciousness moderates the relationship between green human resource management and green knowledge sharing.

2.9 Chapter Summary

This chapter discussed the existing work of the variables of this study in detail. The chapter started with the discussion about leadership and its types. This chapter focused on the inclusive leadership style. The chapter also discussed green creativity and green knowledge sharing. GHRM and its practices were also discussed in this chapter. This chapter shed light on environmental consciousness as well.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is a structured and scientific method use to explore the clarification of the issue. Research methodology facilitates researchers find the suitable research methods and other techniques to collect data. Researcher must be aware of the relevant techniques for the data collection. Kothari (1990) says that the idea behind the research model should be insightful and reasonable. Research methodology contains apprehension about research types, research approach, sample size, modes of collecting the data, analysis techniques for the data and the interpretations of the data (Hair et al., 2006; Kumar, 2005).

According to Jonker and Pennink (2010) research methodology holds the significance in research. According to them developing the questionnaire, collecting responses from limited participants and analyzing it is not enough. It should include the nature of the research questions and theoretical opinions and approaches. Three causes highlight the significance of selecting the research methodology (Easterby-Smith et al., 2012). Firstly, it facilitates the researchers to acknowledge the research methods and the plan of action for the research. Secondly, researcher evaluates the modes of research and selects the most appropriate method. Thirdly, the researcher uses the method that he never been adopted previously.

This chapter also discusses the philosophy, framework of the research, prior work on research, data collection, sampling processes and modes of data analysis.

3.2 Research Philosophy

There are two research views or philosophies in social science research. One is positivism and the second is social constructivism. The basis of positivism is impartiality and external framework. According to Jonker and Pennink (2010) the researcher designs the research questions by observing the phenomena from their own point of view. Positivist view is quantitative in nature. The positivist approach emphasizes that there is a need to study social world as natural. Positivist view says that the starting point of the research is hypothesis development and the data collection occur.

The second philosophy is social constructivism. It says that social world and natural world are very different from each other. It further says that social world should not be studied or investigated scientifically because everyone has its own behavior, thinking and personality. It is subjectivity based. It is qualitative in nature.

The philosophy of this study is positivism because it starts with hypothesis development between predictor and outcome variables with presence of mediating and moderating variables, followed by data collection and data analysis processes.

3.3 Research Approach

Selection of research approach is the next step after research philosophy. According to Saunders, Lewis and Thornhill (2009), there exist two types of research approaches that are inductive approach and deductive approach.

Inductive approach moves from specific to general. Data is collected in order to develop a theory. It helps in theory building. On the contrary, deductive approach goes from generic to specific. Researcher develops hypothesis in this approach and then the theory is tested by planning

the proper research strategies (Shah,2015). For example, green inclusive leadership helps developing green creativity and green knowledge sharing. There are several features of deductive approach (Saunders et al.,2016).

The features are as mentioned:

- There is a causal association among variables.
- The researcher is independent of the observations.
- Concepts are functionalized in such a way that the facts are analyzed quantitatively.
- There must be generalization of the results.

Based on these features, this study is based on deductive approach.

3.4 Research Design

Positivist view says that social and business world should be investigated or treated scientifically and researchers should follow a structured research design. There are four types of research designs (Sekaran, 2003).

Exploratory research is used when there exists no enough information or knowledge about the same problem. Qualitative studies are done in such research design. There are not clearly mentioned strategies to find the solution in this research (Hair et al., 2006).

Descriptive research is called “ex post facto research” (Kothari, 1990). There is no control on the variables of the researcher. It is used to find the scientific and structured problem and its solution (Ghauri & Gronhaug,2005). Descriptive research focuses on questions like what, when, where, who and why (Hair et al.,2006; Bloch,2013).

The third research design is causal research. It explains the reasons for change in a variable. The causal method says that one construct causes another variable (effect). It is used to study a causal relationship among variables (Sekaran, 2003).

The correlational research is the last research design. Sekaran (2003) says said that when researcher attempts to find out the predominance of the variables involved in the problem, this design is used. It is very complexed because the researcher finds out the relationship and nature of such relationships among variables (Sekaran, 2003; Shah, 2015).

This study is correlational because it finds the relationships between green inclusive leadership, green human resource management, green creativity, green knowledge sharing and environmental consciousness. This research has been done cross-sectionally. In this type of research data is collected at one single point of time from the various fragments of the population (Saunders et al., 2009). There are no time arrangements in this type of research.

3.5 Nature of the study

The researcher must be diligent in the selection of research type because it effects the findings and significance level of the research model (Cryer, 2000; Kumar 2005). According to Sekaran (2003) there are two types of research 1: quantitative 2: qualitative. Meanwhile Creswell (2009) said there are three types of researches i.e., qualitative, quantitative and mixed. He said that quantitative research included correlational and less diligent analysis. Surveys and experiments are two sub-modes in such research. Questionnaires and structured interviews are conducted in such research to collect data about the problem from the sample. Experiments are done to find the effect of one variable over another.

Contrarily, qualitative research is based on narrative research, phenomenological research, ethnographical research, grounded theory and case studies (Creswell, 2009). Ethnographical research is used when the research is based on a specific cultural group and the data is collected through observations and interviews over a long duration. While grounded theory is used to generate the supposition. The term “grounded” means that the supposition does not exist all of a sudden but it is generated. The narrative researcher is done when the researcher finds out the events or the stories of the people participating in the research and then these events are organized and explained in chronological order. According to Creswell (2007), a narrative study entails autobiographies, biographies, life history or the history about research variable’s life. While case study is an extensive study of the nature issues in organizations. It finds the solution of the problem and theory development (Sekaran,2003). In phenomenological studies, the lived experiences of particular event in a participant’s life are given meaning. The universal quintessence is generated from the person’s experience regarding that particular phenomenon (Creswell, 2007).

Mixed method is used when the researcher experiences some biases with respect to above mentioned methods. The mix method strategy has not been fully utilized (Creswell,2009). There are three categories of mix methods. Sequential mixed method is used researcher doing the qualitative research follows the quantitative strategies as well or when research starts quantitatively but ends up using the qualitative strategy. In concurrent method, both qualitative and quantitative methods are combined. Transformative assorted modes develop a layout for problems, modes collecting the data and the results of the research.

Since quantitative research is suitable where positivism exists, data is gathered in numeric values and the theory is tested via hypothesis and deductive approach is used. This research matches the criteria of quantitative research so it’s done quantitatively.

3.6 Population of the Research Study

The researcher selected the software houses operating in Rawalpindi and Islamabad as the population of the study.

3.7 Unit of Analysis

Unit of analysis is basically the main parameters that are investigated in a research study. It deals with “who” and “what” to be investigated. In this research the unit of analysis is the employees (software developers).

3.8 Sampling Procedures

Sampling is a technique that is used to choose enough number of items from the population in order to apprehend the features or attributes of the chosen questions and to broaden such attributes of the population (Sekaran,2003). Sekaran also said that extreme care must be kept in mind so that each element of the population can get equal depiction. According to him two categories of sampling exist i.e., probability and non-probability.

All these sampling methods have their own pros and cons. The sampling design was selected based on the population and nature of the research. Sekaran (2003) said that simple random sampling is applicable, it describes the whole population. Thus, simple random sampling is used in this study.

3.9 Simple Random Sampling

It is called simple or chance sampling (Kothari,1990). Each item gets the equal opportunity to get selected for data collection. The researcher randomly selected the software developers working in above mentioned software houses.

3.10 Sample Size

There are several references of sample size techniques. This study follows the 10-factor rule of thumb. The rule of thumb says that “sample size should be 10 times of the number of weights” (Abu-Mostafa, 1995; Baum and Haussler, 1988; Haykin, 2009). The questionnaires of the number 700 were distributed among the respondents with different interval of time. 480 usable questionnaires were received.

3.11 Data Collection

The author contacted the software house through emails/contact number given on the websites. After receiving the approval from the focal person, the questionnaires were distributed. Before asking them to fill the questionnaires, the objective of the research was conveyed to the participants. The author also told them the definitions of the variables studied in the research for giving them the understanding. Data collection took three months and 480 usable questionnaires were processed for further analysis.

3.12 Research Instruments

The questionnaire consisted of six sections. The sections were

- a) Information about the demographics
- b) green inclusive leadership
- c) green human resource management practices
- d) green creativity
- e) green knowledge sharing
- f) environmental consciousness.

3.13 Demographic information

This section included information regarding the gender, age, education, work life experience and monthly income estimation of the respondents.

3.14 Green Inclusive Leadership Scale

All the scales were evaluated on five-point scale (1= strongly disagree, 5=strongly agree). The scales were unidimensional. GIL was measured by using the adapted version of 9 items developed by Carmeli et al., (2010) with 0.94 Cronbach alpha. It was also used by Bhutto et al., (2021) with Cronbach alpha 0.90.

3.15 Green Human Resource Management Scale

The study measured four GHRM practices by adopting the scale utilized by Masri & Jaaron (2017). 18 items regarding the particular practices were extracted from this scale. The reliability in that study was 0.97.

3.16 Green Creativity Scale

To gauge green creativity a six-item scale created by Chen and Chang (2013) with 0.913 reliability was used and some other researchers validated this scale (Li et al., 2020; Mittal & Dhar, 2016) but GC6 lowered the reliability of the scale so this item was detained. According to Li et al, (2020) the reliability of the scale was 0.892 while it was 0.949 according to (Mittal & Dhar, 2016).

3.17 Green Knowledge Sharing Scale

Five items of green knowledge sharing were evaluated by utilizing the scale created by Rubel et al., (2021a). The validity of the scale ranged from 0.77 to 0.91 in that study.

3.18 Environmental Consciousness Scale

Environmental consciousness was measured by using the scale utilized by Kautish and Sharma (2021) with 0.89 reliability. It was adapted from Mishal et al., (2017); Schlegelmilch et al. (1996); Sharma and Bansal (2013); Wimmer (1992). The reliability of the scale was 0.841

according to (Schlegelmilch et al.,1996). The reliability of the scale was 0.4874 according to (Mishal et al.,2017).

3.19 Reliability and Validity of the instruments:

To conduct the sound measurement of the variables and the instruments it is very important to measure the reliability and validity. Reliability deals with the precision and correctness of the processes while the validity is the degree to which a certain statistical test measures what we actually want to measure (Kothari,1990).

3.19.1 Reliability

When an instrument gives the same results by repeating the same process again and again it is called reliability (Sekaran, 2003). It is measured by finding the Cronbach alpha of the items.

Table 1. Reliability of the variables

<i>Variable</i>	<i>Cronbach Alpha</i>	<i>No. of Items</i>
Green Inclusive Leadership	0.941	9
Green Human Resource Management	0.967	18
Green Creativity	0.891	5
Green Knowledge Sharing	0.907	5
Environmental Consciousness	0.939	5

3.19.2 Validity

Just the reliability is not enough, validity is also important. It is basically the precision of the measurement scale (Shah,2015). Validity is basically a process of drawing meaningful inferences from scores on instruments.

Following are the forms of validity that were used in this research.

3.19.2.1 Content Validity

The non-numerical validity of the items or the variables is called content validity. It is not expressed in statistical results (Flynn et al.,1990; Kothri,1990). But the competent and expert authorities can measure it. It is evaluated with the help of previous work (Sekaran,2003).

3.19.2.2 Construct Validity

When a variable displays an expected correlation with other variables or hypotheses it is said to have a construct validity (Kothari,1990). When a proposed relationship between variables is supported by a theory it is said to have construct validity. Factor analysis measures the construct validity (Davis,Allen & Cosenza, 1988). There are two types of construct validity:

3.19.2.3 Convergent Validity

When the items of a construct that are supposed to be related, are actually related it is called convergent validity (Hair et al., 2006). Variance extracted of constructs, composite reliability and standardized factor loading measures the convergent validity (Hair et al., 2006). The variance extracted of 0.5 or above, composite reliability of 0.7 or above is the most used rule of thumb for valid convergence. Convergent validity of this study was measured with the help of average variance extracted and composite reliability.

3.19.2.4 Discriminant Validity

It basically shows a differentiation among the constructs. When the constructs have no relationship among them only then it occurs (Hair et al., 2006). There are four ways to measure it (Farrell & Rudd,2009). These methods are the paired-construct test, chi-square difference test, implied correlation matrix and multi-trait multi method techniques. In this study the AVE of each

construct has been compared with shared variance between them. If AVE is higher than shared variance, discriminant validity exists.

3.20 Data Analysis

Pedhazur (1997) said that statistical processes are based on presumptions that should be kept in mind for the accurate relationship among the variables therefore some of tests were run before the actual data analysis.

3.21 Normality Test

Among various methods, the normality of the data was tested by checking the skewness and kurtosis of the data that is proposed by Meyer, Gamst & Guarino (2006). The data was normal because the values of skewness and kurtosis were in range.

3.22 Multicollinearity Test

Multicollinearity is another statistical problem of the data. When the variables are strongly co-related, multicollinearity exists. To check this problem variance inflation factor (VIF) and tolerance tests were used. Tolerance value near to 1 means less multicollinearity and the value near to 0 means high multicollinearity. According to Hair et al., (2006) the VIF value up to 5.0 shows less multicollinearity that has been used in this study as well.

3.23 Homoscedasticity Test

There must homoscedasticity in the data instead of heteroscedasticity (Hair et al., 2006). Regression standardized residual p-p plot was run to measure homoscedasticity of the data in this study.

3.24 Normal distribution of Error Terms Test

It is necessary to know if it is logical to presume that random errors present in the process have been taken from normal distribution or not. This is done with the help of histogram (Tabachnick, & Fidell, 2007).

3.25 Descriptive Statistics

It is not easy to collect and make a proper record of the research data. Descriptive statistics are used to arrange and interpret the attributes of the data (Sekaran,2003). So to arrange the data some descriptive statistical tests frequency distribution, arithmetic mean, standard deviation was used in this study (table 2).

Table 2. Descriptive Statistics

		GIL	GHRM	GKS	EC	GC
N	Valid	480	480	480	480	480
	Missing	0	0	0	0	0
Mean		35.1583	59.825	18.1167	18.3938	19.075
Std. Deviation		3.90438	12.9445	3.94679	4.37076	4.71069
Minimum		27	33	11	12	11
Maximum		44	85	25	25	28

Note: GIL=Green inclusive leadership, GHRM= Green human resource management, GC=Green creativity, GKS= Green knowledge sharing, EC=Environmental consciousness

3.26 Structural Equation Modeling

Structural equation modeling (SEM) is a model that is used to investigate and measure the proposed relationship among the variables. There are two steps in SEM. First, it runs series of structural equations (regression) to explain the causal processes of the study. Second it conceptualizes theory (Byrne, 2012). According to Hair et al., (2006) it efficiently manages

numerous relationships. It extensively quantifies the relationships among factors and helps moving from exploratory to confirmatory analysis.

SEM helps in finding the goodness of fit between the actual information and the expected model of research. Goodness of fit tells about the resolute quality of the proposed relationships among the variables (Byrne, 2012). There are two stages of SEM: measurement model and structural model. Measurement model defines the relationship between observed and latent factors. This process helps in assessing the accuracy of the observed variables. Numerous goodness of fit indices is available to validate the measurement model. After getting the model fit, research attempts to validate the structural model.

Confirmatory factor analysis (CFA) measures the suitability for each variable's model. Comparative fit index (CFI), Goodness of fit index (GFI), chi square (χ^2), Root Mean Square Error of Approximation (RMSEA and Root Mean Square Residual (RMR) were used to measure the parameter. The value of CFI should be greater or equal to 0.90 but value near to 1 display the best fit. Such value tells that given model can reproduce the covariance in the data (Fan, Thompson, & Wang, 1999).

Root Mean Square Error of Approximation measures the inconsistency per degree of freedom, the best model fit exists when the value is under 0.05 but value upto 0.08 is suitable (Chen et al.,2008).

Good of fit index (GFI) explains the overall degree of fit. Its value ranges from 0 to 1. According to Byrne (2013) the value of GFI higher than 0.90 gives best fit.

Another parameter estimation method is Root Mean Square Residual (RMR). "It evaluates the square root of the mean of squared residuals and the average of the residuals between observed

and estimated input indices” (Hair et al,2006). It ranges from 0 to 1. Value below 0.05 is a good (Hair et al,2006) but value up to 0.08 is also suitable (Hu & Bentler,1999).

Chi-square value compares the observed variable and the anticipated results and also tells if its significant or not. Fit index CMIN/DF is the chi-square value divided by degree of freedom and its value ranges between 2 and 5 for a good fit (Marsh & Hovecar,1985).

The Tucker Lewis index (TLI) is another fit index that ranges between 0 to 1 and talks about the model fit (Hu & Bentler, 1999). Similarly, the value of Normed Fit index (NFI) between 0.9 and 0.95 explains good fit (Portela,2012).

Validation of the structural model explains the causal association among latent constructs. It also tells the explicit and implicit effect of latent variables (Byrne,2013). This explanation is based on “A simultaneous regression of the endogenous variables in the hypothesized structural model on the predicted antecedents” (Cheng,2001). Since SEM is used for large number of participants so this study used the SEM technique.

3.26.1 Moderation Analysis

The moderating role of environmental consciousness was checked by the interaction of independent and moderating variables in PLS4. After that, Baron and Kenny (1986) three equation model were used to check the role of moderating variable.

$$\gamma = \alpha + \beta_1\chi_1 + \varepsilon \text{ ----- Eq. 1}$$

Equation 1 indicates the association between predictor and outcome variables and was used to find the relationship between green inclusive leadership, green creativity and green knowledge sharing.

$$\gamma = \alpha + \beta_1 Z_1 + \varepsilon \text{ ----- Eq. 2}$$

Equation 2 indicates the association between catalyzing and outcome variables. It showed the influence of environmental consciousness on GC and GKS.

$$\gamma = \alpha + \beta_1 \chi_1 Z + \varepsilon \text{ ----- Eq. 3}$$

Equation 3 indicates the association of the interaction of predictor and catalyzing variables with outcome variables.

3.7 Statistical Software

The use of statistical software for data analysis is highly predominant. It helps in research investigation by giving the factual results of the factors. These soft wares help in data analysis in no time. So, the software SPPSS 25 and PLS4 were used in this research to find the link between the variables. Smart PLS helps to develop, measure and validate research models in management sciences. Smart PLS tells the link between variables and their indicators by developing the path models. It is used for at least 200 or more responses. It uses reflective and formative models. There is flexibility in Smart PLS that helps in validating the models (Hair et al., 2013).

3.8 Chapter Summary

This chapter discussed the research methodology in detail. The chapter started with brief introduction of research methodology, philosophy of the research, research approach, nature of the research, population, sample techniques and sample size. This chapter also discussed the data analysis methods.

CHAPTER 4

DATA ANALYSIS

4.1 Introduction

This chapter encompasses the data analysis of the collected data. The analysis using the statistical techniques makes the study more systematic, universal, undeniable and academic (Rahman, 2012). This chapter discusses the data analysis in detail.

4.2 Initial Assumptions

Before analyzing the data, the researcher needs to satisfy some of the assumptions about the data. The variables and the data create the assumptions of the statistical techniques (Osborne & Waters, 2002). Therefore, it is necessary to satisfy such assumptions to fix the problems and respond to the research questions, otherwise it will cause spurious results. Some of the assumptions are mentioned below. Their results are also discussed briefly.

4.3 Normality of the Data

Data normality is evaluated by measuring the skewness and kurtosis of the data. Skewness measures the symmetry of the data and kurtosis measures if the data is heavy tailed or light tailed in relation to the normal distribution. Skewness ranges between -1 and +1 and the value of kurtosis lies between -3 and +3 (Hair et., 2006). The distribution of the data is normal (table 3).

Table 3. Normality of the data

			<i>GIL</i>	<i>GHRM</i>	<i>GKS</i>	<i>EC</i>
N	Valid	480	480	480	480	480
	Missing	0	0	0	0	0
Skewness		Skewness	0.075	-0.307	-0.127	-0.125
Std. Error of Skewness		Std. Error of Skewness	0.119	0.119	0.119	0.119
Kurtosis		Kurtosis	-0.361	-0.594	-1.05	-1.262
Std. Error of Kurtosis		Std. Error of Kurtosis	0.238	0.238	0.238	0.238

Note: GIL=Green inclusive leadership, GHRM= Green human resource management, GC=Green creativity, GKS= Green knowledge sharing, EC=Environmental consciousness.

4.4 Homoscedasticity

Another assumption of the statistical techniques is homoscedasticity. Homoscedasticity is “Variety in scores for one continuous variable which is roughly the same at all values of another continuous variable” (Tabachnick & Fidell,2001). The data should satisfy this assumption (Hair et al.,2006). P-P plot of regression standardized residual was measured to fulfil this assumption. The figures in Appendix-A shows the homoscedasticity among the variables. This assumption was satisfied.

4.5 Normal Distribution of Error Term

Another assumption is normal distribution of error terms (Kothari,1990). Before running the regression analysis, this assumption must be satisfied (Osborne &Waters,2002). The distribution of the curves was bell-shaped and it was not skewed so the assumption was fulfilled. The figures in Appendix-A displays the same assumption.

4.6 Multicollinearity

There are some conflicts regarding the value of multicollinearity. Some researchers argue that it must be less than 10.0 and some say it should be less than 5.0. If the value of VIF is less than 5.0 then the multicollinearity does not exist (Hair et al.,2006). When the tolerance value is ≥ 1 then less multicollinearity exists and when tolerance value is near to 0 then high multicollinearity exists (Shah,2015). Table in appendix reveals the Tolerance and VIF values of green inclusive leadership, GHRM, green creativity, green knowledge sharing and environmental consciousness and they all are within the range that means there's no multicollinearity

4.7 Factor Analysis

Factor analysis should also be sorted out before regression. Factor analysis measures whether the data is adequate and suitable or not. Social Sciences use the KMO (Kaiser-Meyer-Olkin) and Barlett's (p-value) tests to find the adequacy and suitability of the sample. KMO value above 0.5 shows that the data is adequate (Kaiser, 1974). The Bartlett sphericity (p) value has to be less than 0.05 for the data to be suitable (George &Mallery, 2003). Table 4 displays the KMO, p values of the variables that are in given range.

Table 4. Factor Analysis

<i>Variable</i>	<i>KMO</i>	<i>p-Value</i>
Green Inclusive Leadership	0.923	0
Green Human Resource Management	0.867	0
Green Creativity	0.798	0
Green Knowledge Sharing	0.845	0
Environmental Consciousness	0.856	0

4.8 Demographical Information of the participants

The demographic information in terms of five items was asked from the respondents. It included gender, age, qualification, working experience (in years) and estimated monthly income. Table 5 displays the demographic information about the 480 respondents from different software houses in Islamabad and Rawalpindi. It includes the frequency and the percentage of the respondents.

Table 5. Demographic information of respondents

<i>Items</i>		<i>Frequency</i>	<i>Percent</i>
Gender	Male	268	55.8
	Female	212	44.2
	Total	480	100
Age	18-25	247	52.5
	26-35	188	39.2
	36-45	45	9.4
	Total	480	100
Qualification	Bachelor's Degree	323	67.3
	Master's Degree	86	17.9
	MPhil	60	12.5
	Doctorate	11	2.3
	Total	480	480
Working Experience in years	0-5	358	74.6
	6-10	98	20.4
	11-15	24	5
	Total	480	100
Monthly Income	Rs. 15,000 to 34,000	37	7.7
	Rs. 35,000 to Rs. 49,000	71	14.8
	Rs. 50,000 to Rs. 74,000	198	41.3
	Rs. 75,000 to Rs. 99,000	40	8.3
	100,000 and Above	134	27.9
Total		480	100

4.9 Descriptive Statistics

Descriptive statistics helps in transforming the raw data into systematic data so that the variables are given useful meanings (Sekaran,2003). Table 2 describes the mean and the standard deviation of the variables. The greater the mean value the lower the standard deviation displays the agreement between respondents and the questions asked from them.

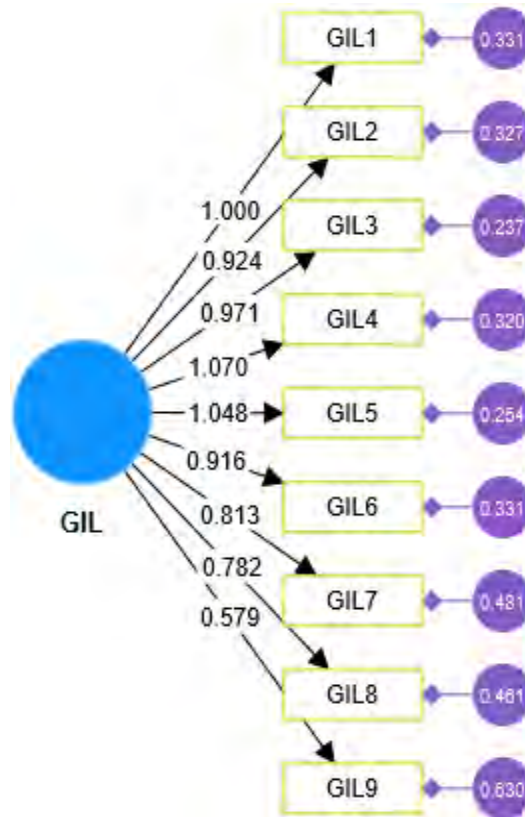
4.10 Measurement Model

Goodness of fit between data and hypothesis is checked through measurement model. The variables of the research model are checked separately and then collectively (Rahman,2012). So, it is important to measure the variables individually through confirmatory factor analysis (CFA).

4.10.1 CFA for Green Inclusive Leadership

Green inclusive leadership is one of the exogenous variables of this study. The CFA for this variable was conducted. The value of RMR should be equal or less than 0.08 demonstrates good model fit (Hu & Bentler,1999). The value of GFI equal or less than 1.00 demonstrates good model fit (Joreskog & Sorbom,1984). The value of CFI should be equal or less than 1.00 demonstrates good model fit (Bentler,1990; McDonald & Marsh,1990). The value of RMSEA should be equal or less than 0.08 (Brown & Cudeck, 1993). The value of GFI was 0.968, CFI =0.968, RMR=0.023 and RMSEA=0.074. So the model was accepted with acceptable values of goodness of fit (figure 2 and appendix A).

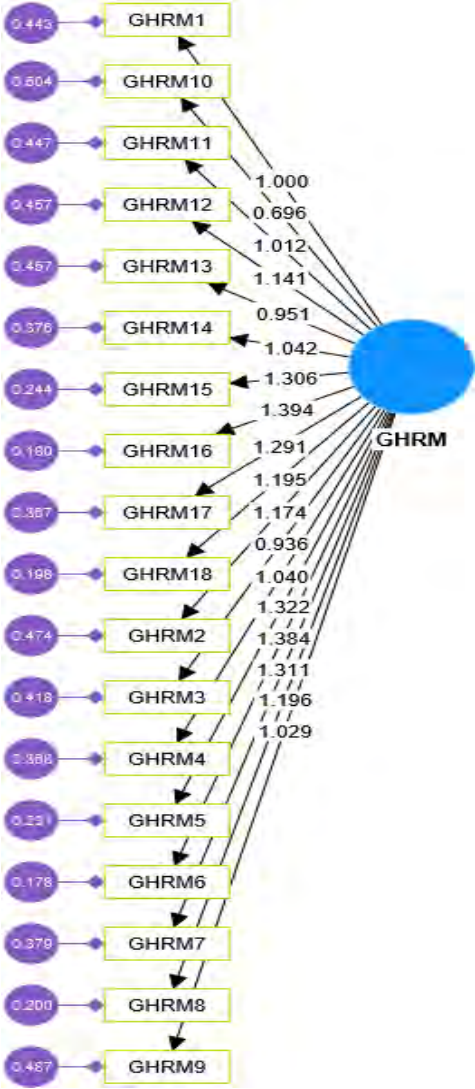
Figure 2. Measurement Model of GIL



4.10.2 CFA for Green Human Resource Management

Green Human Resource Management is another exogenous variable of this research. The CFA of this variable was run and the value of GFI was =0.926, CFI=0.980, RMR=0.041, RMSEA=0.08. The values were in range and the model was accepted (figure 3 and appendix A).

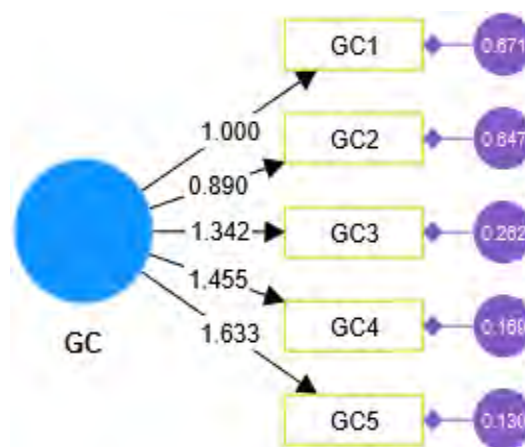
Figure 3.Measurement Model of GHRM



4.10.3 CFA for Green Creativity

Green creativity is the outcome variable in this research. The CFA of GC was checked. The value of GFI was =0.885, CFI=0.897, RMR=0.91, RMSEA=0.272. The values were not in the range so the model was rejected initially (figure 4 and appendix A).

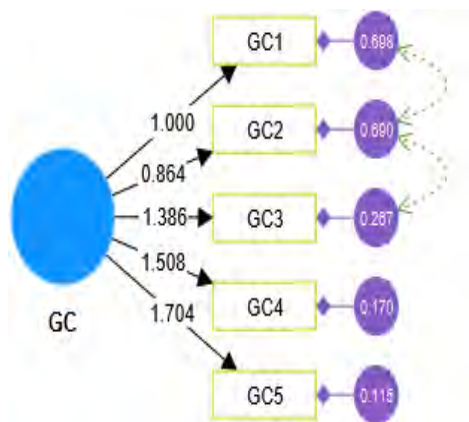
Figure 4.Measurement Model of GC



4.10.4 Revised CFA for Green Creativity

The revised CFA for green creativity was checked. The covariance was drawn between error terms e1-e2 and e2-e3. The value for GFI was=0.992, CFI=.996, RMR=0.012, RMSEA=0.066 The model was in range and was accepted (figure 5 and appendix A).

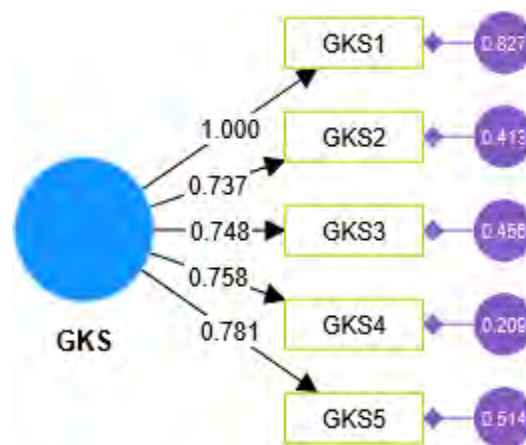
Figure 5. Revised Measurement Model of GC



4.10.5 CFA for Green Knowledge Sharing

Another variable of this research is green knowledge sharing. The CFA was checked for this variable and the value of GFI was 0.997, CFI=0.999, RMR=0.009, RMSEA=0.071 and Degree of freedom was 1. The model was accepted based on the values (figure 6 and appendix A).

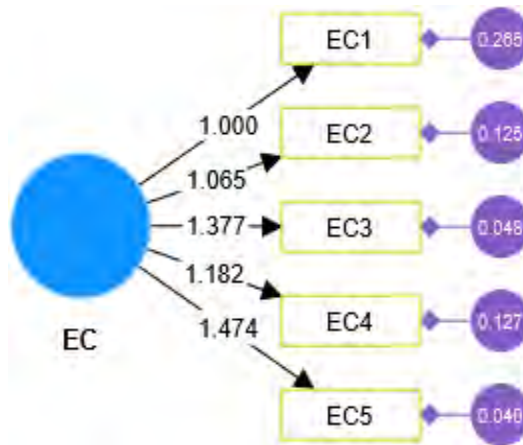
Figure 6.Measurement Model of GKS



4.10.6 CFA for Environmental Consciousness

Environmental consciousness is another variable of this study. The CFA of this variable was measured. The value of GFI was 0.921, CFI=0.903, RMR=0.029, RMSEA=0.208 but the value of RMSEA was not within the range. So, the model was rejected (figure 7 and Appendix A).

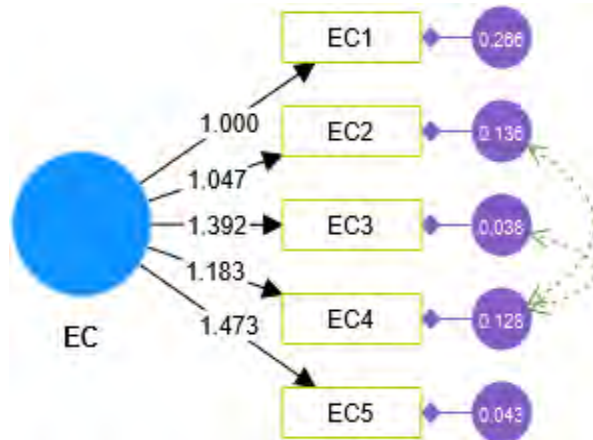
Figure 7. Measurement Model of EC



4.10.7 Revised CFA for Environmental Consciousness

Environmental consciousness is the moderator in this study and the revised CFA was checked for this variable as well. The covariance was drawn between error terms e2-e4 and e3-e4. The value of GFI was=0.999, CFI=1, RMR=0.004, RMSEA=0.00. The model was accepted (figure 8 and appendix A).

Figure 8. Revised Measurement Model of EC



4.11 CFA for overall measurement model, reliability and validity

After checking the CFA for the variables individually, the CFA for overall model was measured using the maximum likelihood method. It depicted that data and the model fit reasonably. The values of the goodness of fit indices confirmed that the overall measurement model was accepted. The value of GFI was 0.921, CFI=0.938, RMR=0.043, P value=0.00, RMSEA= 0.079, NFI=0.90, TLI= 0.91 and Degree of freedom was 749. The model was in acceptance level according to (Hair et al.,2006b) and model fit was excellent (figure 9 and table 6).

The convergent validity occurs when the constructs that are supposed to be related are actually related (Hair et al.,2006a). Composite reliability and values of variance extracted measure the convergent validity (Hair et al.,2006a). The value of variance extracted should be 0.5 or higher and the composite reliability should be 0.70 or higher (Hair et al.,2006a). According to this standard the values of composite reliability (CR) and average variance extracted (AVE) were acceptable (table 7).

Discriminant validity was measured through the Fornell and Larcker (1981) method. According to them the value of AVE has to be higher than shared variance extracted. The discriminant validity was established (table 8).

Figure 9. Overall CFA Measurement Model

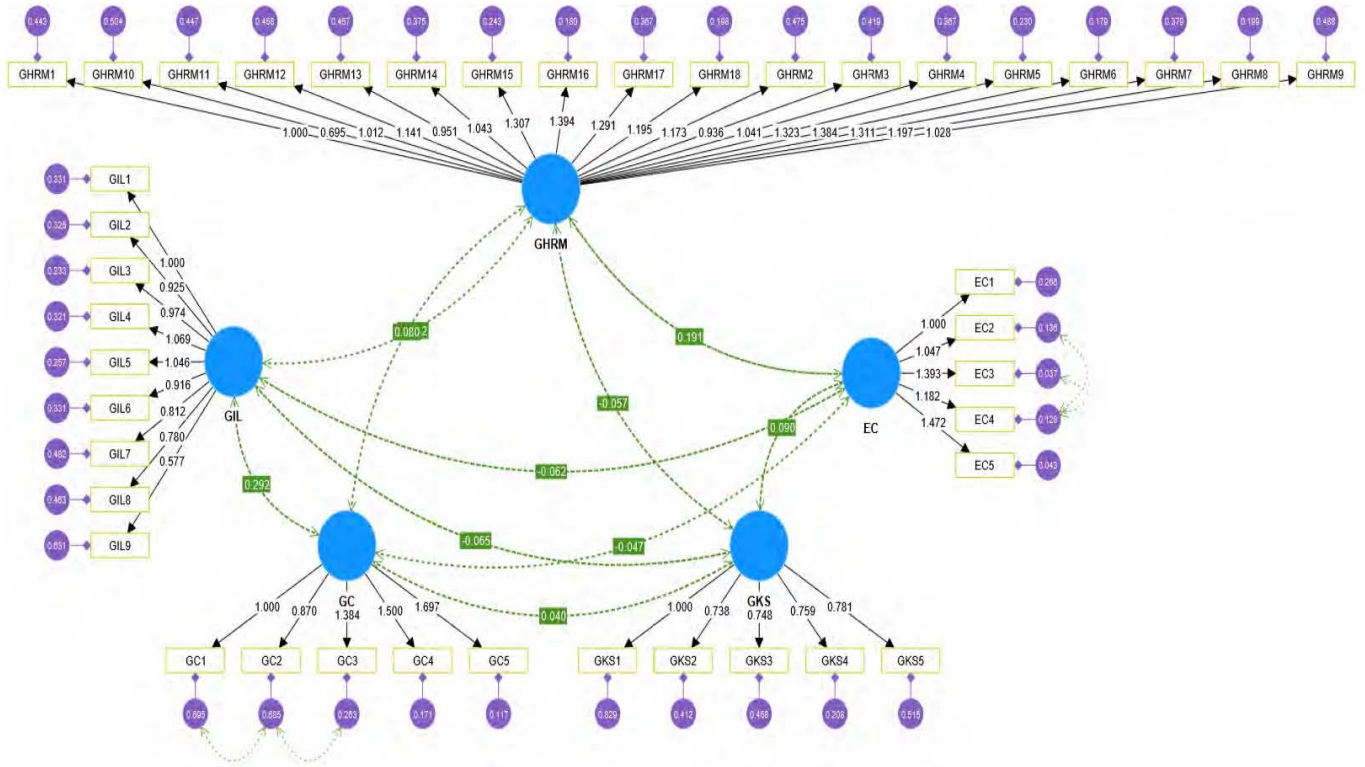


Table 6. Calculations for overall CFA Measurement Model

<i>Goodness of fit</i>	<i>Acceptable level</i>	<i>Calculated measure</i>	<i>Status</i>	<i>Remarks</i>
RMR	< 0.05 shows good fit, But acceptable < 0.08 or equal to 0.08	0.043	Acceptable	
GFI	Less or equal to 1.000	0.921	Acceptable	
CFI	Less or equal to 1.000	0.938	Acceptable	
RMSEA	Best fit when = 0.05, acceptable up to < 0.08 or equal to 0.08	0.079	Acceptable	Acceptable
CMIN/DF	Between 2 to 5	2.76	Acceptable	
NFI	Between 0.9 and 0.95	0.9	Acceptable	
TLI	Between 0 and 1	0.91	Acceptable	

Table 7. Convergent Validity

<i>Variables</i>	<i>CR</i>	<i>AVE</i>
EC	0.934	0.757
GHRM	0.945	0.609
GC	0.842	0.615
GHRM	0.945	0.609
GIL	0.924	0.634

Note: GIL=Green inclusive leadership, GHRM= Green human resource management, GC=Green creativity, GKS= Green knowledge sharing, EC=Environmental consciousness.

Table 8. Discriminant Validity

	<i>EC</i>	<i>GC</i>	<i>GHRM</i>	<i>GIL</i>	<i>GKS</i>
EC	0.87				
GC	-0.047	0.784			
GHRM	0.188	0.081	0.781		
GIL	-0.054	0.276	-0.04	0.796	
GKS	0.102	0.038	-0.035	-0.071	0.821

Note: GIL=Green inclusive leadership, GHRM= Green human resource management, GC=Green creativity, GKS= Green knowledge sharing, EC=Environmental consciousness.

4.12 Structural Equation Modeling

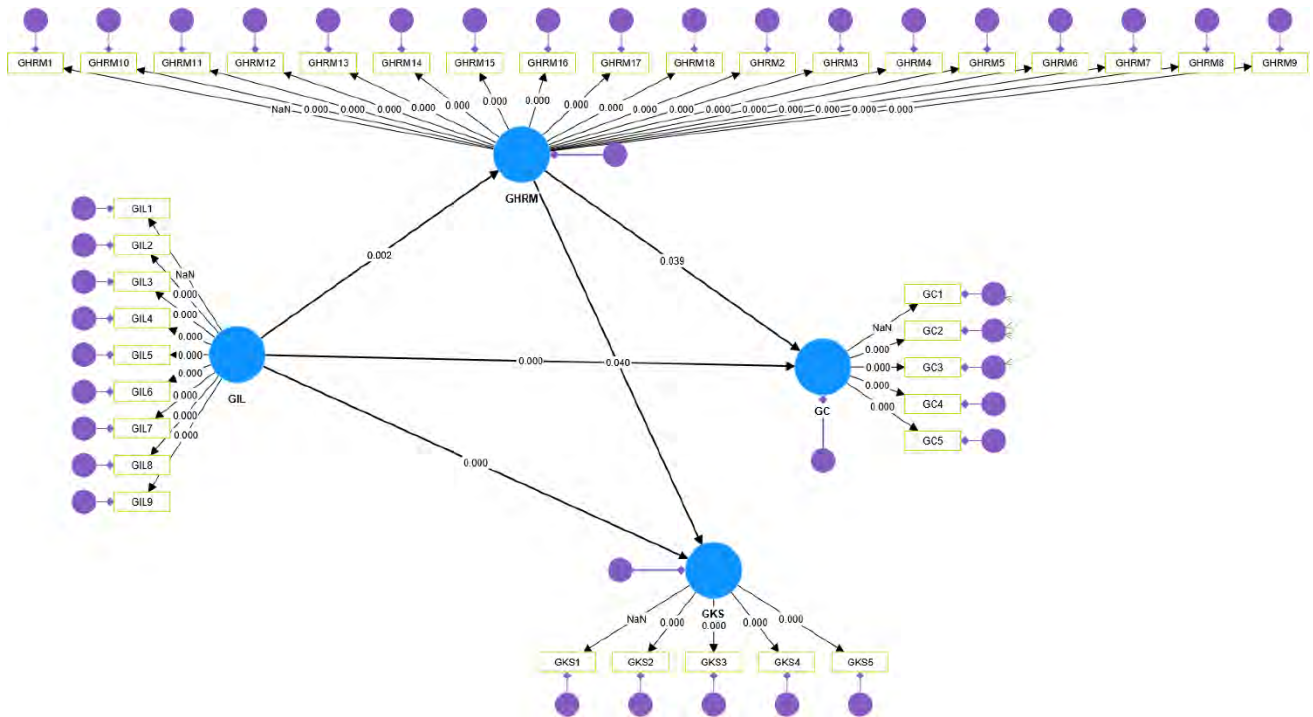
Structural equation modeling is a two-phase process, after measuring the CFA, SEM is evaluated to validate the hypotheses. Structural model examines the direct and indirect relationships between the constructs. It links the independent variable to dependent variable (Schreiber et al., 2006; Hair et al., 2010).

4.12.1 Testing of direct and indirect hypothesis through mediation

SEM helps in measuring the complexed models where multiple paths are used (Wood et al.,2008). SEM is used to measure the mediated relationships. It is a better method on the theoretical and statistical basis (Iacobucci, Saldanha, & Deng, 2007).

“Mediation exists when a predictor impacts a criterion variable indirectly through at least one intervening variable” (Preacher & Hayes, 2008). It basically tells how an independent variable impacts the dependent variable through a mediator. Preacher and Hayes (2008) recommended the bootstrapping technique for mediation. According to them “Bootstrapping is a nonparametric procedure that does not impose the assumption of normality of the sampling distribution. It is highly intensive process that repeatedly samples from the data set and estimates the indirect effects in each resampled data set”. By doing this process the β values, t values and p values are obtained. If the $p < 0.05$ and $t > 2$ then the mediation is significant and positive (Argote et al.,2016). β value only indicates the relationship between the variables but it does not tell whether the relationship is significant or not. Hypothesis are accepted or rejected on the basis of t-values (Naru & Rehman,2020). In this study 2000 bootstrapping samples with confidence interval 95% were measured. The t value and p values were within the range. Figure 10 explains the above-mentioned values.

Figure 10. Structural Equation Model



4.12.2 Direct Relationships

The inner model was measured to evaluate the direct relationship between the variables of the study. The direct relationship between dependent and independent variable was evaluated to test hypothesis 1 and 2. The direct relationship between independent and mediator was evaluated to test hypothesis 3. Direct relationship between mediator and dependent variable was analyzed to test hypothesis 4 and 5.

Table 9 shows the beta coefficient, t value and p values of the above-mentioned hypotheses. The values for H1 ($\beta=0.312$, $t=5.55$, $p=0.000$) showed the significant and positive relationship between GIL and GC. The values for H2 ($\beta=0.303$, $t=5.458$, $p=0.000$) showed the significant and

positive relationship between GIL and GKS. The values for H3 ($\beta=0.215$, $t=4.215$, $p=0.002$) showed the significant and positive relationship between GIL and GHRM. The values for H4 ($\beta=0.181$, $t=3.35$, $p=0.039$) showed a significant and positive relationship between GHRM and GC. The values for H5 ($\beta=0.131$, $t=2.42$, $p=0.040$) showed a significant and positive relationship between GHRM and GKS.

Table 9. Total direct effects

	<i>B</i>	<i>(M)</i>	<i>STDEV</i>	<i>t Value</i>	<i>p values</i>
GHRM -> GC	0.181	0.181	0.054	3.35	0.039
GHRM -> GKS	0.131	0.131	0.054	2.42	0.04
GIL -> GC	0.314	0.314	0.054	5.774	0
GIL -> GHRM	0.215	0.215	0.051	4.215	0.002
GIL -> GKS	0.303	0.302	0.056	5.458	0

Note: GIL=Green inclusive leadership, GHRM= Green human resource management=Green creativity, GKS= Green knowledge sharing, EC=Environmental consciousness

4.12.3 Mediated Relationships

GHRM was used as the mediator in this study that showed effects on dependent variables that are GC and GKS. The first mediating effect of GHRM was between GIL and GC. The values for H6 ($\beta= 0.345$, $t=5.000$, $p=0.000$) showed that GHRM mediated the relationship between GIL and GC significantly and positively. The values for H7 ($\beta=0.345$, $t=5.000$, $p=0.000$) showed that GHRM mediated the relationship between GIL and GKS significantly and positively (table 10).

Table 10. Total indirect effects

	<i>B</i>	<i>(M)</i>	<i>(STDEV)</i>	<i>t- value</i>	<i>p values</i>
GIL -> GHRM -> GC	0.345	0.345	0.069	5	0
GIL -> GHRM -> GKS	0.345	0.345	0.069	5	0

Note: GIL=Green inclusive leadership, GHRM= Green human resource management, GC=Green creativity, GKS= Green knowledge sharing, EC=Environmental consciousness.

4.12.4 Moderation Analysis

Environmental consciousness was the moderator in this study. To analyze the moderated relationship of EC with independent, mediator and dependent variables the moderation analysis was done using the Hayes Process in SPSS. Hayes model 58 was used for this test.

For H8, the relationship between GIL, EC and GHRM was tested. The model summary showed that ($p=0.000$, $R\text{-sq.}=0.5497$) there is a significant relationship between green inclusive leadership and environmental consciousness (table 11).

The effect of GIL on GHRM showed that ($t=4.0873$, $p=0.0001$, $LLCI=0.1423$, $ULCI=0.4269$). The values showed the relationship to be positively significant since the LLCI and ULCI showed the positive signs. The effect of EC on GHRM showed that ($t=2.2122$, $p=0.0421$, $LLCI=0.0037$, $ULCI=0.2435$) the relationship was positively significant. The interaction term GIL x EC showed ($t=4.7733$, $p=0.0001$, $LLCI=0.1685$, $ULCI=0.4680$) that EC moderates the relationship between GIL and EC significantly and positively. So H8 was supported (table 12).

For H9, the relationship between GHRM and EC was tested to find the effect on GC. The model summary showed that ($p=0.000$, $R\text{-sq.}=0.556$) the relationship between GHRM and EC is

significant. The effect of GIL on GC was ($t=4.837$, $p=0.000$, $LLCI=0.145$, $ULCI=0.456$) significant and positive (table 13).

The effect of GHRM on GC ($t=3.63$, $p=0.000$, $LLCI=0.126$, $ULCI=0.456$) was also significant and positive. The effect of EC on GC ($t=2.423$, $p=0.011$, $LLCI=0.0035$, $ULCI=0.2564$) was positive and significant. The interaction term GHRM x EC showed ($t=2.550$, $p=0.011$, $LLCI=0.002$, $ULCI=0.016$) that EC moderates the relationship between GHRM and GC. So H9 was supported (table 14).

For H10, the relationship between GHRM and EC was tested to check their impact on GKS. The model summary showed that ($R\text{-sq.}=0.5416$, $p=0.000$) the relationship between GHRM and EC -to impact GKS was significant (table 15).

The effect of GIL on GKS showed ($t=4.1967$, $p=0.0001$, $LLCI=0.1435$, $ULCI=0.4267$) that the relationship was positive and significant. The effect of GHRM on GKS showed that ($t=4.1654$, $p=0.0001$, $LLCI=0.145$, $ULCI=0.4075$) the relationship is positive and significant. The effect of EC on GKS was ($t=3.1682$, $p=0.0001$, $LLCI=0.0054$, $ULCI=0.246$) positive and significant.

The interaction term GHRM x EC showed that ($t=2.6666$, $p=0.0111$, $LLCI=0.004$, $ULCI=0.018$) EC moderates the relationship between GHRM and GKS so H10 was supported (table 16).

Table 11. Model summary for interaction term GIL x EC

<i>R</i>	<i>R- sq</i>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>P</i>
0.7413	0.5497	0.1507	118.3257	4	465	0

Table 12. Effects of GIL and EC on GHRM

	<i>Coeff</i>	<i>Se</i>	<i>t</i>	<i>P</i>	<i>LLCI</i>	<i>ULCI</i>
Constant	68.962	29.039	2.375	0.018	11.9	126.025
GIL	0.2947	0.0721	4.0873	0.0001	0.1423	0.4269
EC	0.125	0.0565	2.21223	0.0421	0.0037	0.2435
Int_1	0.358	0.075	4.7733	0.0001	0.1685	0.468

Note: GIL=Green inclusive leadership, EC=Environmental consciousness

Table 13. Model summary for interaction term GHRM x EC

R	R- sq	MSE	F	df1	df2	p
0.746	0.556	0.1278	96.1766	4.000	465.000	0.000

Table 14. Effects of GHRM and EC on GC

	<i>Coeff</i>	<i>Se</i>	<i>t</i>	<i>P</i>	<i>LLCI</i>	<i>ULCI</i>
Constant	21.683	4.645	4.668	0	12.555	30.812
GIL	0.267	0.055	4.837	0	0.145	0.426
GHRM	0.159	0.048	3.63	0	0.126	0.456
EC	0.126	0.052	2.423	0.011	0.0035	0.2564
Int_1	0.009	0.004	2.55	0.011	0.002	0.016

Note: GIL=Green inclusive leadership, GHRM= Green human resource management, EC=Environmental consciousness

Table 15. Model summary for interaction term GHRM x EC

<i>R</i>	<i>R- sq.</i>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>P</i>
0.736	0.5416	0.1185	98.167	3	466	0

Table 16. Effects of GHRM and EC on GKS

	<i>Coeff</i>	<i>Se</i>	<i>t</i>	<i>P</i>	<i>LLCI</i>	<i>ULCI</i>
Constant	15.589	3.859	4.04	0	8.007	23.172
GIL	0.256	0.061	4.1967	0.0001	0.1435	0.4267
GHRM	0.287	0.0689	4.1654	0.0001	0.145	0.4045
EC	0.1356	0.0428	3.1682	0.0001	0.0054	0.2452
Int_1	0.008	0.003	2.6666	0.011	0.004	0.018

Note: GIL=Green inclusive leadership, GHRM= Green human resource management, EC=Environmental consciousness

Table 17. Summary of hypotheses status

<i>Hypothesis</i>	<i>Status</i>
H1	Accepted
H2	Accepted
H3	Accepted
H4	Accepted
H5	Accepted
H6	Accepted
H7	Accepted
H8	Accepted
H9	Accepted
H10	Accepted

4.13 Chapter Summary

This chapter discussed the data analysis of the gathered data in detail. The chapter discussed the preliminary assumptions of the data, confirmatory factor analysis and structural equation modeling of the proposed hypothesis. The hypotheses were tested in this chapter.

CHAPTER 5

DISCUSSION

This chapter entails the discussion and conclusion achieved by the data analysis. The theoretical and practical implications are also discussed in this chapter. This chapter highlights the limitation faced by the author during this study and suggests the future research avenues. This research was based on several purposes. One of the purposes was to investigate the direct effect of green inclusive leadership on green creativity and green knowledge sharing. The other objective was to find the link between green inclusive leadership and the mediator green human resource management. The effect of the mediator on green creativity and green inclusive leadership was another aim of the study. The study was meant to find out the impact of the moderator that is environmental consciousness on the independent and dependent variables.

This study claimed that green inclusive leadership positively impacts green creativity. According to literature leader's support for employees' pro environmental behavior guarantees that they are allowed to contribute in eco-friendly behaviors and create the pro environmental initiatives. Such actions influence the psychology of the employees and they get motivated to showcase green behaviors (Priyankara et al., 2018). Inclusive leadership effects creativity and innovativeness (Amabile & Pratt, 2016; Carmeli et al., 2010; Choi et al., 2015; Javed et al., 2019) because such type of leaders showcase the activities that make them available and accessible for the employees (Carmeli et al., 2010), and encourage them so that they can propose new, out of the box and thoughtful ideas (Altunoglu & Bulgurcu Gurel, 2015; Sanders et al., 2010).

The relationship between these two variables was measured in SEM and the values were ($t=5.775$, $p=0.000$) which were in the range so the H1 was supported and it was in line with the literature that green inclusive leadership is positively linked with green creativity.

According to this study green inclusive leadership is significantly linked to green knowledge sharing. Prior literature says that knowledge management is known to influence many performance outcomes (Bhatti et al., 2022). Employees can generate "collaborative" knowledge through the sharing of their professional knowledge with colleagues (Teh & Yong, 2011; Jabbour & de Sousa Jabbour, 2016; Song et al.). Exchanging facts, expertise, and know-how to solve problems; establishing and implementing novel approaches, regulations, or practices (Chen et al., 2018). Knowledge is developed in the workplace when employees exchange it with other employees. GIL, an example of inclusionary leadership, has been characterized as leadership methods that are open, available, and capable of achieving environmental goals using these concepts as a basis (Bhutto et al., 2021). when inclusive leaders develop a connection based on trust with people, attend to their needs, and are always accessible to them, employees satisfy their need for affiliation (Carmeli et al., 2010; Hollander, 2009; Nembhard & Edmondson, 2006). Knowledge sharing is not automatic, it depends on the behavior of the leaders (Srivasta et al,2006). The relationship between these two variables was in line with the literature that gave ($t=5.458$, $p=0.000$). So H2 was supported.

The hypothesis was claimed by this research that GIL and GHRM are positively linked. Past studies say that in an organization, leaders and HRM practices impact the behaviors and actions of the workmen. When there is green inclusive leadership in an organization the employees get more transparent and detailed information about the ecological objectives and goals. Human resource management connects the organization with employees. Green inclusive leadership helps to employees to develop clearer environmental objectives in the organization. When the green human resource practices that are staff recruitment, training, compensation designs, performance appraisals are implemented within the organization, employees will be committed to preserve the

environment by displaying protection clues to the environment. Both leadership and management provide the environmental clues to the employees that stresses over the protection of the environment. When there is green inclusive leadership, employees perceive the organization as green. The leadership style determines the organizational image. Green Inclusive leadership fosters the green and environmental protection culture of an organization. HRM and organizational culture are intertwined (Al-Bahussin & Garaihy,2013). The values for H3 were ($t=4.215$, $p=0.002$) that depicts that the statistical data and literature were aligned.

Four hypotheses were claimed about the mediator GHRM. According to these claims GHRM is positively linked with both the dependent variables that are GC and GKS. GHRM also mediates the relationship between GIL and GC, GIL and GKS respectively. When the HR department of the organization makes the pro-environment policies and emphasizes on giving attention to eco- friendly development then the employees will give importance to the green principals implemented by the organization. The operations of employee performance appraisals, salary design link green environment responsibility to employee performance and salary, that will encourage the green environmental protection practices that are promoted by green inclusive leadership (Quan, Tian & Qiu,2022).

The organizations that have the awareness about the environmental issues should encourage GC. The researchers argue that the workplaces can promote GHRM to encourage GCRT (Jia et al., 2018; Ogbeibu et al., 2020). Past studies have established that green training is an essential element that is used to make the employees aware and motivated towards enhancing their responsibilities in conserving the environment that ultimately leads to motivate them to learn equivalent expertise (Y. J. Kim et al., 2020; S. Ren et al., 2018). HRM emphasizes on enhancing the skills, knowledge and expertise of the employees, it helps the employees to utilize their skills and contribute towards

the organization. HRM most evidently determines how employees transfer their knowledge (Bhatti et al., 2020). This research associates HRM with GKS.

Not only the leaders have the power to influence the subordinates but human resource management system have the responsibility to recruit, select, evaluate and promote employees so that the policies developed by human resource management can affect the attitude and action of the employees at work. The hypotheses H4, H5, H6, H7 supported the literature because the values were as follows ($t=3.35$, $p=0.039$), ($t=2.42$, $p=0.040$), ($t=5.000$, $p=0.000$), ($t=5.000$, $p=0.000$).

Three hypotheses claimed the moderating role of EC. H8 claimed that EC has a moderating role between GIL and GHRM. H9 claimed that EC moderates the relationship between GIL and GC. H10 claimed that EC moderates the relationship between GIL and GKS. According to the literature conscious leaders are considered more effective and productive (Harris and Kuhnert.,2008). Furthermore, the consciousness of the leader improves the leader-member relationships (Reb et al.,2014). Consciousness of the leader improves the employee outcomes. A conscious leader knows exactly how to lead the employees in the organization (Saragih et al., 2020). According to Mazzi et al. (2016) the alignment of GHRM with ecological administration is important because it motivates employees to develop knowledge and attitude that helps in environmental knowledge. According to Kim (2017) “in case of ecological regulations the dormant way of management inclines towards the less feedback of the environment and by time they tend to ignore the ecological issues, so for the development of innovativeness green creativity is a vital factor for ecological conservation.

Conscientious individuals know what are their duties towards society. They have the responsibility consciousness that enhances their interest for environmental sustainability and since

conscientiousness is related to environmental consciousness so it is proposed that environmental consciousness strengthens green knowledge sharing (Kaynak& Eski, 2014).

The values for H8 ($t=4.7733$, $p=0.0001$, $LLCI=0.1685$, $ULCI=0.468$) supported the hypothesis and proved that this hypothesis was in line with the literature. Similarly, the values for H9 ($t=2.550$, $p=0.011$, $LLCI=0.002$, $ULCI=0.016$) showed that the hypothesis was in alignment with the literature. The value for H10 ($t=2.6666$, $p=0.011$, $LLCI=0.004$, $ULCI=0.018$) showed that the result was in line with the literature.

5.6 Theoretical Implications

This study contributes scholarly in which the organizational sustainability has been discussed. It discusses the areas of sustainability that have not been given much attention. Prior studies have discussed GHRM practices that help in better employee conduct (Mishra et al., 2014; Ramus et al., 2007) but this study discusses such phenomena in context of developing countries like Pakistan where the concept of GHRM is still not explored enough. Human Resource is an under-researched field in Pakistan (Aycaan et al.,2000); Rahman ,2012). The theoretical implications of this study are as follows:

- This study uses the term creativity in context of sustainability because there was a need to explain this term in other contexts as it has always been used arbitrarily (Saleh & Brem,2023). This study improves the apprehension of the term creativity in the context of sustainability. It increases the theoretical understanding of creativity.
- It has been noticed that green inclusive leadership is linked with creativity and knowledge sharing with variable such as perceived GOC and green service recovery performance (Aboramadan , Crawford & Türkmenoğlu,2022) but they have not been studied with the

relation of environmental consciousness. This study links environmental consciousness with green inclusive leadership.

- Another observation is that environmental consciousness has been studied with green consumption (Lin & Niu,2018), intellectual capital management (Huang & Kung, 2011), and behavioral intentions (Martínez, Herrero & Gómez, 2018) but consciousness has not been studied with green inclusive leadership and GHRM, so this study closes this gap to find the relationship between these three variables.
- The research work about consciousness in leaders has not gain much attention (Saragih et al., 2020). So, this study expands the understanding about the consciousness in leaders with the support of social exchange theory.
- Since the combined relationship of GIL, GC and GKS have been study in European (Italy) context (Aboramadan, Crawford & Türkmenoğlu,2022). While in Pakistan the effect of GIL on knowledge sharing has been studied only in academic context (San, Latif & Vaio ,2022). So, this study discusses the relationship in Pakistani IT industry.

5.7 Practical Implications

This study has the following managerial implications:

- Organizations need to plan the execution of the green inclusive leadership. They need to enhance the knowledge of the leadership regarding the environmental protection. They need to allow the leaders so that they can accept different and novel ideas about the environmental protection. Leaders should also improve their way of communicating with the employees. This study helps in understanding the role of leader and what can he do to help his subordinates.
- Organizations need to adopt GHRM in developing countries like Pakistan that are suffering from disastrous climate change so that the green behaviors of the employees must be encouraged. Organizations need to learn how to align their HRM practices with environmental protection policies and this study helps in this matter.
- Selection and recruitment need to be done on the basis of employee's environmental values. Training and development should be incorporated in GHRM practices about how to display and develop pro-environmental behavior. Rewards and compensations should be based on the environmental performance. Performance management and appraisals should consider the green practices of the employees.
- This study helps in establishing concepts of green consciousness and pro-environmental concepts among employees that helps employees participate in green operations such as green creativity and green knowledge sharing.
- Organizations need to encourage the knowledge sharing about environmental concerns.

5.8 Limitations and Future Research

This study has some limitations that can be resolved by future researchers. The first limitation is that this study concentrates only on how GIL effects the individualistic behavior of the employees. It only takes account the individual perspective. Future studies must concentrate on the group perspective and how does green inclusive leadership effect employee's team behavior. It should be studies on organizational level as well.

Second, the questionnaire has certain limitations. It had a limited scope. The future researchers should increase the demographic information and the number of representatives to generalize the findings.

Third limitation is that this study did not consider the cultural elements that facilitate the motivation for displaying the green behavior so future studies should expand this study into the cultural factors. Values, belief system, education, collectivism and individualism are the main factors of the culture. They affect the way a person thinks. People with conservative belief system may not encourage creativity and knowledge sharing but people who believe in experiments and innovation may encourage green behaviors. Education also plays an important role in shaping the mindset of a person. Similarly, collectivism and individualism impact the way people collaborate with each other and it also affects they create and share ideas.

Fourth limitation is that this study did not consider the demographic characteristics and their effect on green behavior so the future studies should focus on this aspect.

Future researchers should study other green behaviors such as green work values (Hameed et al., 2020) and green self-efficacy (Chen et al., 2014).

Sixth limitation is that this study is cross-sectional that studied the behavioral aspect at one point in time so future researchers are suggested to replicate this study on longitudinal or experimental basis so that the changes in behavior can be assessed.

5.9 Conclusion

This research was aimed to find the repercussions of green inclusive leadership on employee behavior such as green creativity and green knowledge sharing. Green human resource management was used as the mediator while environmental consciousness was used as the moderator. The hypotheses were based on social exchange theory that says that the social exchange between people causes them to reciprocate. Similarly, when the organization or the management provides the resources to the employees, they feel the sense of reciprocity so that they can pay back something to the organization. The data was collected from various software houses because the study wanted to examine the impact of the above-mentioned variables in the IT industry. The preliminary assumptions about the data that included reliability, validity, homoscedasticity, multicollinearity, normal distribution was checked before factor analysis. To check if the model is in alignment with the data Structural Equation Modeling was done in SmartPLS4 that displayed the explicit and implicit associations between independent, dependent and mediator. Moderation analysis was done in SPSS using the Hayes process. Green creativity is the dependent variable of this study that is developing the novel ideas about the green and ecofriendly operations and procedures. When the leader encourages new ideas and promotes the green and pro- environment notions it stirs up the workmen to discuss their thoughts and it develops green creativity among the employees. Similarly, when the leader encourages and appraises the employees for their green ideas, they tend to share it with other co-workers that leads to green knowledge sharing. GKS is another dependent variable of this study. Not only the leaders but the human resource policies are

also responsible for creating green creativity and green knowledge sharing. The green human resource policies such as recruitment and selection, training and development, appraisals, rewards and compensation associated green responsibility to the salary and performance of the employees then it develops the green behaviors among employees such as green creativity and green knowledge sharing and such policies are only developed when there is a green inclusive leadership. Environmental consciousness plays an important role as a moderator. When the leader is aware of the environmental duties, he encourages the GHRM in the organization and similarly the mindful employees follow the GHRM policies to pay their contributions towards the conservation of the environment. The study showed that the IT industry in Pakistan is trying to pay its part towards the protection of the environment.

5.10 Chapter Summary

This chapter discussed the findings of the analysis and drew a conclusion based on these findings. The practical and theoretical implications were discussed in this chapter as well. This chapter highlighted the limitations.

6. References

- Abdul-Jalal, H., Toulson, P., & Tweed, D. (2013). Knowledge sharing success for sustaining organizational competitive advantage. *Procedia Economics and Finance*, 7, 150-157.
- Abbas, J. (2020a). Impact of total quality management on corporate sustainability through the mediating effect of knowledge management. *Journal of Cleaner Production*, 244, 118806.
- Aboramadan, M., Crawford, J., Türkmenoğlu, M. A., & Farao, C. (2022). Green inclusive leadership and employee green behaviors in the hotel industry: Does perceived green organizational support matter? *International Journal of Hospitality Management*, 107, 103330.
- Abukhait, R. M., Bani-Melhem, S., & Zeffane, R. (2019). Empowerment, knowledge sharing and innovative behaviours: Exploring gender differences. *International Journal of Innovation Management*, 23(01), 1950006.
- Abu-Mostafa, Y. S. (1995). Hints. *Neural computation*, 7(4), 639-671.
- Afsar, B., & Badir, F. Y., & Bin Saeed, B. (2014). *Transformational leadership and innovative work*.
- Afsar, B., Badir, Y., & Saeed, B. (2014). Transformational leadership and innovative work behavior. *Industrial Management & Data Systems*, 114(8), 1270–1300. <https://doi.org/10.1108/IMDS-05-2014-0152>
- Aguiar Castillo, L., Rufo Torres, J., De Saa Pérez, P., & Pérez Jiménez, R. (2018). How to encourage recycling behaviour? The case of WasteApp: a gamified mobile application. *Sustainability (Switzerland)*.

- Ahmad, I., Donia, M. B., & Shahzad, K. (2019). Impact of corporate social responsibility attributions on employees' creative performance: The mediating role of psychological safety. *Ethics & Behavior*, 29(6), 490-509.
- Ahmad, S. (2015). Green human resource management: Policies and practices. *Cogent business & management*, 2(1), 1030817.
- Aklamanu, A., Degbey, W. Y., & Tarba, S. Y. (2016). The role of HRM and social capital configuration for knowledge sharing in post-M&A integration: a framework for future empirical investigation. *The International Journal of Human Resource Management*, 27(22), 2790-2822.
- Al-Bahussin, S. A., & El-Garaihy, W. H. (2013). The impact of human resource management practices, organisational culture, organisational innovation and knowledge management on organisational performance in large Saudi organisations: structural equation modeling with conceptual framework. *International Journal of Business and management*, 8(22), 1.
- Alfred, A. M., & Adam, R. F. (2009). Green management matters regardless. *Academy of Management Perspectives*, 23(3), 17-26.
- Ali, A., Wang, H., & Boekhorst, J. A. (2023). A moderated mediation examination of shared leadership and team creativity: a social information processing perspective. *Asia Pacific Journal of Management*, 40(1), 295-327.
- Ali, F., Kim, W. G., Li, J., & Cobanoglu, C. (2018). A comparative study of covariance and partial least squares based structural equation modelling in hospitality and tourism research. *International Journal of Contemporary Hospitality Management*, 30(1), 416-435.

- Ali, S. M. (2021). How Lahore became the world's most polluted place. *Foreign Policy*.
- Almahamid, S., Awwad, A., & McAdams, A. C. (2010). Effects of organizational agility and knowledge sharing on competitive advantage: an empirical study in Jordan. *International Journal of Management*, 27(3), 387.
- Altunoglu, A. E., & Bulgurcu Gurel, E. B. (€ 2015). Effects of leader–member exchange and perceived organizational support on organizational innovation: The case of Denizli Technopark. *Procedia - Social and Behavioral Sciences*, 207, 175–181.
<https://doi.org/10.1016/j.sbspro.2015.10.170>
- Alvarado, R., Ponce, P., Criollo, A., Córdova, K., & Khan, M.K. (2018). Environmental degradation and real per capita output: new evidence at the global level grouping countries by income levels. *Journal of Cleaner Production*.
- Aamir, A., Jan, S. U., Qadus, A., Nassani, A. A., & Haffar, M. (2021). Impact of knowledge sharing on sustainable performance: Mediating role of employee's ambidexterity. *Sustainability*, 13(22), 12788.
- Amabile, T. M. (1988). A model of creativity and innovation in organizations. *Research in organizational behavior*, 10(1), 123-167.
- Amabile, T. M. (1988). A model of creativity and innovation in organizations. *Research in organizational behavior*, 10(1), 123-167.
- Amabile, T. M. (1996). *Creativity in Context*. Boulder, CO: *Westview Press*.
- Amabile, T. M. (1997). Motivating creativity in organizations: On doing what you love and loving what you do. *California management review*, 40(1), 39-58.

- Amabile, T. M., & Pratt, M. G. (2016). The dynamic componential model of creativity and innovation in organizations: Making progress, making meaning. *Research in organizational behavior*, 36, 157-183.
- Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of management journal*, 39(5), 1154-1184.
- Amjad, F., Abbas, W., Zia-UR-Rehman, M., Baig, S. A., Hashim, M., Khan, A., & Rehman, H. U. (2021). Effect of green human resource management practices on organizational sustainability: the mediating role of environmental and employee performance. *Environmental Science and Pollution Research*, 28, 28191-28206.
- and measurement error: algebra and statistics. *Journal of Marketing Research*, 382-388.
- Anderson, N., Potočnik, K., & Zhou, J. (2014). Innovation and creativity in organizations: A state-of-the-science review, prospective commentary, and guiding framework. *Journal of management*, 40(5), 1297-1333.
- Anser, M. K., Shafique, S., Usman, M., Akhtar, N., & Ali, M. (2021). Spiritual leadership and organizational citizenship behavior for the environment: an intervening and interactional analysis. *Journal of Environmental Planning and Management*, 64(8), 1496-1514.
- Antonakis, J. (2001). *The validity of the transformational, transactional, and laissez-faire leadership model as measured by the Multifactor Leadership Questionnaire (MLQ 5X)*. Walden University.
- Antonides, G., & Van Raaij, W. F. (1998). Consumer behaviour: A European perspective.

Applied Psychology: An International Review, 49(1), 192-221.

Argote, L., & Guo, J. M. (2016). Routines and transactive memory systems: Creating, coordinating, retaining, and transferring knowledge in organizations. *Research in Organizational Behavior*, 36, 65-84.

Arnold, R., Schiffer, M., & Chevalier, K. (2011). Faktor Google-Wie deutsche Unternehmen Google einsetzen. *Study by IW Cologne*.

Arthur, J. B., & Huntley, C. L. (2005). Ramping up the organizational learning curve: Assessing the impact of deliberate learning on organizational performance under gainsharing. *Academy of Management Journal*, 48(6), 1159-1170.

Arulrajah, A. A., Opatha, H. H. D. N. P., & Nawaratne, N. N. J. (2015). Green human resource management practices: A review.

Arulrajah, A. A., Opatha, H., & Nawaratne, N. (2016). Green human resource management practices: A review. *Sri Lankan Journal of Human Resource Management*, 5(1).

Avolio, B. J., Bass, B. M., & Jung, D. I. (1999). Re-examining the components of transformational and transactional leadership using the Multifactor Leadership. *Journal of occupational and organizational psychology*, 72(4), 441-462.

Avolio, B., & Bass, B. (2004). Multifactor leadership questionnaire: Manual leader form. *Rater, and Scoring Key for Mlq (form 5x-short)*.

Awan, U., Sroufe, R., & Kraslawski, A. (2019). Creativity enables sustainable development: Supplier engagement as a boundary condition for the positive effect on green innovation. *Journal of Cleaner Production*, 226, 172-185.

- Aycan, Z., Kanungo, R.N., Mendonca, M., Yu, K., Deller, J., Stahl, G., & Khurshid, A. (2000).
- Bai, C., & Sarkis, J. (2010). Green supplier development: analytical evaluation using rough set theory. *Journal of cleaner production*, 18(12), 1200-1210.
- Bai, C., Kusi-Sarpong, S., & Sarkis, J. (2017). An implementation path for green information technology systems in the Ghanaian mining industry. *Journal of Cleaner Production*, 164, 1105-1123.
- Baloch, Q. B. (2013). Writing of Research Proposal. *Abasyn Journal of Social Sciences*, 4(1), 121–137.
- Barczak, G., Lassk, F., & Mulki, J. (2010). Antecedents of team creativity: An examination of team emotional intelligence, team trust and collaborative culture. *Creativity and innovation management*, 19(4), 332-345.
- Baron, C., & Cayer, M. (2011). Fostering post-conventional consciousness in leaders: why and how? *Journal of Management Development*, 30(4), 344-365.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, 51(6), 1173.
- Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: a meta-analysis. *Personnel psychology*, 44(1), 1-26.
- Bass, B. M. (1960). Leadership, psychology, and organizational behavior.
- Bass, B. M. (1974). Bass and Stogdill's Handbook of Leadership: Theory, research and Managerial Applications (Third Ed.). New York: *The Free Press*.

- Bass, B. M. (1990). From transactional to transformational leadership: Learning to share the vision. *Organizational dynamics*, 18(3), 19-31.
- Bass, B. M. (1999). Two decades of research and development in transformational leadership. *European journal of work and organizational psychology*, 8(1), 9-32.
- Bass, B. M., & Avolio, B. J. (1990). The implications of transactional and transformational leadership for individual, team, and organizational development. *Research in organizational change and development*, 4(1), 231-272.
- Bass, B. M., & Avolio, B. J. (Eds.). (1994). Improving organizational effectiveness through transformational leadership. sage.
- Bass, B. M., & Bass Bernard, M. (1985). Leadership and performance beyond expectations.
- Bass, B. M., & Stogdill, R. M. (1990). Bass & Stogdill's handbook of leadership: Theory, research, and managerial applications. *Simon and Schuster*
- Batmanglich, & Cameron, A. (2015). Why Leaders Fail Ethically: A Paradigmatic Evaluation of Leadership. Switzerland. *Springer International Publishing*
- Baum, E., & Haussler, D. (1988). What size net gives valid generalization? *Advances in neural information processing systems*, 1.
- Beck, S., & Mahony, M. (2018). The IPCC and the new map of science and politics. *Wiley Interdisciplinary Reviews: Climate Change*, 9(6), e547.
- Bentler, P.M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107,

- Berger, I. E., & Corbin, R. M. (1992). Perceived consumer effectiveness and faith in others as moderators of environmentally responsible behaviors. *Journal of public policy & marketing*, 11(2), 79-89.
- Bhatti, S. H., Hussain, M., Santoro, G., & Culasso, F. (2023). The impact of organizational ostracism on knowledge hiding: analysing the sequential mediating role of efficacy needs and psychological distress. *Journal of Knowledge Management*, 27(2), 485-505.
- Bhatti, S.H., Zakariya, R., Vrontis, D., Santoro, G. and Christofi, M. (2020), “High-performance work systems, innovation and knowledge sharing”, *Employee Relations: The International Journal*, doi: 10.1108/ER-10-2019-0403.
- Bhutto, S. A., & Auranzeb, Z. (2016). Effects of green human resources management on firm performance: An empirical study on Pakistani Firms. *European Journal of Business and Management*, 8(16), 119-125.
- 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.
- Bibi, P., Ahmad, A., & Majid, A. H. (2018). HRM practices and employee retention: The moderating effect of work environment. In F. Ali, S. Mostafa Rasoolimanesh, & C. Cobanoglu (Eds.), *Applying partial least squares in tourism and hospitality research* (pp. 129–152). *Emerald Publishing Limited*.
- Blau, P. (2017). *Exchange and power in social life*. Routledge.

- Booyesen, L. (2013). The development of inclusive leadership practice and processes. *Diversity at work: The practice of inclusion*, 296-329.
- Bos-Nehles, A. C., & Meijerink, J. G. (2018). HRM implementation by multiple HRM actors: A social exchange perspective. *The International Journal of Human Resource Management*, 29(22), 3068–3092.
- Bourke, J., & Espedido, A. (2019). Why inclusive leaders are good for organizations, and how to become one. *Harvard Business Review*, 29(03), 2019.
- Bollen, K. A., & Long, J. S. [Eds.] *Testing structural equation models*. Newbury Park, CA: Sage, 136-162
- Brachos, D., Kostopoulos, K., Soderquist, K. E., and Prastacos, G. (2007). Knowledge Effectiveness, Social Context and Innovation. *J. Knowl. Manag.* 11 (5), 31–44. doi:10.1108/13673270710819780
- Brauer, B., Ebermann, C., & Kolbe, L. M. (2016). An acceptance model for user-centric persuasive environmentally sustainable is.
- Brown, J. S., & Duguid, P. (1991). Organizational learning and communities-of-practice: Toward a unified view of working, learning, and innovation. *Organization science*, 2(1), 40-57.
- Brown, M. E., & Mitchell, M. S. (2010). Ethical and unethical leadership: Exploring new avenues for future research. *Business ethics quarterly*, 20(4), 583-616.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit.
- Bruhn, M. (1978). The social awareness of consumers: explanation attempts and results of an empirical study in Germany (doctoral thesis). University of Muenster, Muenster

- Buysse, K., & Verbeke, A. (2003). Proactive environmental strategies: A stakeholder management perspective. *Strategic management journal*, 24(5), 453-470.
- Byrne, B. M. (2012). Structural Equation Modeling with Mplus: Basic concepts, applications, and programming. *Routledge*
- Byrne, B. M. (2013). Structural Equation Modeling with AMOS: Basic concepts, applications, and programming. *Routledge*.
- Cabrera, A., Collins, W. C., & Salgado, J. F. (2006). Determinants of individual engagement in knowledge sharing. *The International Journal of Human Resource Management*, 17(2), 245-264.
- Cabrera, E. F., & Cabrera, A. (2005). Fostering knowledge sharing through people management practices. *The international journal of human resource management*, 16(5), 720-735.
- Calia, R. C., Guerrini, F. M., & de Castro, M. (2009). The impact of Six Sigma in the performance of a Pollution Prevention program. *Journal of cleaner production*, 17(15), 1303-1310.
- Cao, M., Zhao, Y., & Zhao, S. (2023). How CEOs' inclusive leadership fuels employees' well-being: a three-level model. *The International Journal of Human Resource Management*, 34(11), 2305-2330.
- Carmeli, A., Reiter-Palmon, R., & Ziv, E. (2010). Inclusive leadership and employee involvement in creative tasks in the workplace: The mediating role of psychological safety. *Creativity Research Journal*, 22(3), 250-260.

- Cheema, S., Afsar, B., & Javed, F. (2020). Employees' corporate social responsibility perceptions and organizational citizenship behaviors for the environment: The mediating roles of organizational identification and environmental orientation fit. *Corporate Social Responsibility and Environmental Management*, 27(1), 9-21.
- Cheema, S., Afsar, B., Al-Ghazali, B. M., & Maqsoom, A. (2020). Retracted: How employee's perceived corporate social responsibility affects employee's pro-environmental behaviour? The influence of organizational identification, corporate entrepreneurship, and environmental consciousness. *Corporate Social Responsibility and Environmental Management*, 27(2), 616-629.
- Chen, F., Curran, P. J., Bollen, K. A., Kirby, J., & Paxton, P. (2008). An empirical evaluation of the use of fixed cut-off points in RMSEA test statistic in structural equation models. *Sociological Methods & Research*, 36(4), 462- 494
- Chen, Y. S., Chang, T. W., Lin, C. Y., Lai, P. Y., & Wang, K. H. (2016). The influence of proactive green innovation and reactive green innovation on green product development performance: The mediation role of green creativity. *Sustainability*, 8(10), 966.238-246.
- Chen, H., Baptista Nunes, M., Ragsdell, G., & An, X. (2018). Extrinsic and intrinsic motivation for experience grounded tacit knowledge sharing in Chinese software organisations. *Journal of Knowledge Management*, 22(2), 478-498.
- Chen, M. H., Wang, H. Y., & Wang, M. C. (2018). Knowledge sharing, social capital, and financial performance: The perspectives of innovation strategy in technological clusters. *Knowledge Management Research & Practice*, 16(1), 89-104.

- Chen, Y. S. (2010). The drivers of green brand equity: green brand image, green satisfaction, and green trust. *Journal of Business ethics*, 93, 307-319.
- Chen, Y. S., & Chang, C. H. (2013). The determinants of green product development performance: Green dynamic capabilities, green transformational leadership, and green creativity. *Journal of business ethics*, 116, 107-119.
- Chen, Y. S., Chang, C. H., & Lin, Y. H. (2014). Green transformational leadership and green performance: The mediation effects of green mindfulness and green self-efficacy. *Sustainability*, 6(10), 6604-6621.
- Cheng, E. W. (2001). SEM being more effective than multiple regressions in parsimonious model testing for management development research. *Journal of management development*, 20(7), 650-667
- Cheng, J. H., Huang, J. K., Zhao, J. F., & Wu, P. (2019). Open Innovation: The role of organizational learning capability, collaboration and knowledge sharing. *International Journal of Organizational Innovation*, 1(3).
- Chennamaneni, A. (2006). Determinants of knowledge sharing behaviors: Developing and testing an integrated theoretical model. The University of Texas at Arlington.
- Cherian, J., & Jacob, J. (2012). A study of green HR practices and its effective implementation in the organization: A review. *International journal of business and Management*, 7(21), 25.
- Choi, S. B., Tran, T. B. H., & Kang, S. W. (2017). Inclusive leadership and employee well-being: The mediating role of person-job fit. *Journal of Happiness Studies*, 18, 1877-1901.

- Choi, S. B., Tran, T. B. H., & Park, B. I. (2015). Inclusive leadership and work engagement: Mediating roles of affective organizational commitment and creativity. *Social Behavior and Personality: an international journal*, 43(6), 931-943.
- Choi, Suk Bong, Thi Bich Hanh Tran, and Byung Il Park. "Inclusive leadership and work engagement: Mediating roles of affective organizational commitment and creativity." *Social Behavior and Personality: an international journal* 43, no. 6 (2015): 931-943.
- Chrobot-Mason, D., Ruderman, M. N., & Nishii, L. H. (2014). Leadership in a diverse workplace. In D. V. Day (Ed.), *The Oxford handbook of leadership and organizations* (pp. 683– 708). Oxford University Press. <http://doi.org/10.1093/oxfordhb/9780199755615.013.034>
- Collins, C. J., & Smith, K. G. (2006). Knowledge exchange and combination: The role of human resource practices in the performance of high-technology firms. *Academy of management journal*, 49(3), 544-560.
- Copeland, N. (1942). 'Psychology and the soldier. Harrisburg, PA: Military Service Publishing.
- Bass, BM (1990). *Bass and Stogdill's handbook of leadership: Theory, research and management applications*.
- Crawford, J. A., Dawkins, S., Martin, A., & Lewis, G. (2020). Putting the leader back into authentic leadership: Reconceptualising and rethinking leaders. *Australian Journal of Management*, 45(1), 114-133.

- Creswell, J. W. (2007). *Qualitative inquiry and research design: choosing among five approaches.* (L. C. Shaw, K. Greene, D. Santoyo, & J. Robinson, Eds.) (2nd ed.). Thousand Oaks: *Sage Publications, Inc*
- Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative and Mixed Approaches.* (V. Knight & S. Connelly, Eds.) (3rd ed.). *Los Angeles: Sage Publications, Inc.*
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management, 31(6), 874–900.*
- Cropanzano, R., Rupp, D. E., & Byrne, Z. S. (2003). The relationship of emotional exhaustion to work attitudes, job performance, and organizational citizenship behaviors. *Journal of Applied Psychology, 88(1), 160*
- Crosby, L. A., Gill, J. D., & Taylor, J. R. (1981). Consumer/voter behavior in the passage of the Michigan container law. *Journal of marketing, 45(2), 19-32.*
- Cross, R. L., & Parker, A. (2004). *The hidden power of social networks: Understanding how work really gets done in organizations. Harvard Business Press.*
- Cryer, P. (2000). *The research student's guide to success.* (2nd ed.) Buckingham.: Open University Press
- Cummings, J. N. (2004). Work groups, structural diversity, and knowledge sharing in a global organization. *Management science, 50(3), 352-364.*
- Czarnitzki, D., & Wastyn, A. (2009). Does professional knowledge management improve innovation performance at the firm level? *ZEW-Centre for European Economic Research Discussion Paper, (09-067).*

- Dahiya, R. (2020). Do organizational sustainability policies affect environmental attitude of employees? The missing link of green work climate perceptions. *Business Strategy & Development*, 3(3), 395-403.
- Daily, B. F., & Huang, S. C. (2001). Achieving sustainability through attention to human resource factors in environmental management. *International Journal of operations & production management*.
- Damodaran, L., & Olphert, W. (2000). Barriers and facilitators to the use of knowledge management systems. *Behaviour & Information Technology*, 19(6), 405-413.
- Darr, E. D., & Kurtzberg, T. R. (2000). An investigation of partner similarity dimensions on knowledge transfer. *Organizational behavior and human decision processes*, 82(1), 28-44.
- Data Analysis. (6th ed.) Upper Saddle River, NJ: Prentice-Hall.
- Davenport, T. H., & Prusak, L. (1998). Working knowledge: How organizations manage what they know. Boston, MA: *Harvard Business School Press*
- Davis, D., Allen, J., & Cosenza, R. M. (1988). Segmenting local residents by their attitudes, interests, and opinions toward tourism. *Journal of travel research*, 27(2), 2-8.
- Day, D. and Antonakis, J., 2011. "The nature of leadership", Sage Publications, Inc., Thousand Oaks, CA, USA.
- Day, D. V., & Antonakis, J. (Eds.). (2012). The nature of leadership (2nd ed.). Thousand Oaks, CA: SAGE. Thousand Oaks, CA: SAGE

- Deinert, A., Homan, A. C., Boer, D., Voelpel, S. C., & Gutermann, D. (2015). Transformational leadership sub-dimensions and their link to leaders' personality and performance. *The Leadership Quarterly*, 26(6), 1095-1120.
- Dembkowski, S., & Hanmer-Lloyd, S. (1994). The environmental value-attitude-system model: A framework to guide the understanding of environmentally-conscious consumer behaviour. *Journal of marketing management*, 10(7), 593-603.
- Detert, J. R., & Burris, E. R. (2007). Leadership behavior and employee voice: Is the door really open? *Academy of management journal*, 50(4), 869-884.
- Dezi, L., Ferraris, A., Papa, A., & Vrontis, D. (2019). The role of external embeddedness and knowledge management as antecedents of ambidexterity and performances in Italian SMEs. *IEEE Transactions on Engineering Management*, 68(2), 360-369.
- Dezi, L., Ferraris, A., Papa, A., & Vrontis, D. (2019). The role of external embeddedness and knowledge management as antecedents of ambidexterity and performances in Italian SMEs. *IEEE Transactions on Engineering Management*, 68(2), 360-369.
- Deshpandé, R., Farley, J. U., & Webster Jr, F. E. (1993). Corporate culture, customer orientation, and innovativeness in Japanese firms: a quadrad analysis. *Journal of marketing*, 57(1), 23-37.
- Dienesch, R. M. S., & Liden, R. C. (1986). Leader-member exchange model of leadership: A critique and further development. *Academy of Management Review*, 11, 618-634.
<https://doi.org/10.5465/amr.1986.4306242>

- Dumont, J., Shen, J., & Deng, X. (2017). Effects of green HRM practices on employee workplace green behavior: The role of psychological green climate and employee green values. *Human resource management, 56*(4), 613-627.
- Dunlap, R. E., & Van Liere, K. D. (1978). The “new environmental paradigm”. *The journal of environmental education, 9*(4), 10-19.
- Easterby-Smith, M., Thorpe, R., & Jackson, P. R. (2012). *Management research*. Sage.
- Eckstein, D., Künzel, V., Schäfer, L. & Wings, M. (2019). Global climate risk index 2020. Who suffers most from extreme weather events? Wether-related loss events in 2018 and 1999 to 2018. Germanwatch. Bonn, Berlin, Germany. Retrieved October 6, 2022, from <https://www.germanwatch.org/en/17307>
- Ehnert, I., & Ehnert, I. (2009). *Sustainable human resource management*. Physica-Verlag.
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology, 71*(3), 500–507.
- El-Kassar, A. N., & Singh, S. K. (2019). Green innovation and organizational performance: The influence of big data and the moderating role of management commitment and HR practices. *Technological forecasting and social change, 144*, 483-498.
- Employee Development in the Context of Performance Appraisal in Public Universities
- Epstein, M., & Roy, M. (1997). Using ISO 14000 for improved organizational learning and environmental management. *Environmental Quality Management, 7*, 21-30.
[http://dx.doi.org/10.1002/\(ISSN\)1520-6483](http://dx.doi.org/10.1002/(ISSN)1520-6483)

- Fan, X., Thompson, B. and Wang, L. (1999). Effects of sample size, estimation methods, and model specification on structural equation modeling fit indexes. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 56-83
- Farrell, A. M., & Rudd, J. M. (2009). Factor analysis and discriminant validity: a brief review of some practical issues. *Proceedings of the 2009: Anzmac*
- Fernández, E., Junquera, B., & Ordiz, M. (2003). Organizational culture and human resources in the environmental issue: a review of the literature. *International Journal of Human Resource Management*, 14(4), 634-656.
- Fisher, D., & Torbert, W. (1991). Transforming managerial practice: Beyond the achiever stage. *Research in organizational change and development*, 5, 143-173.
- Florea, L., Cheung, Y. H., & Herndon, N. C. (2013). For all good reasons: Role of values in organizational sustainability. *Journal of business ethics*, 114, 393-408.
- Flynn, B. B., Sakakibara, S., Schroeder, R. G., Bates, K. A., & Flynn, E. J. (1990). Empirical research methods in operations management. *Journal of operations management*, 9(2), 250-284.
- Fong, C. Y., Ooi, K. B., Tan, B. I., Lee, V. H., & Yee-Loong Chong, A. (2011). HRM practices and knowledge sharing: an empirical study. *international Journal of Manpower*, 32(5/6), 704-723.
- Forester, J., & Clegg, S. R. (1991). Burns, JM (1978). Leadership. New York: Harper and Row. *Leadership Quarterly*, 2(1).

- Forman, M., & Jørgensen, M. S. (2001). Green supply chain management strategies-experiences from the Danish textile sector.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables
- Foss, N. J., & Pedersen, T. (2002). Transferring knowledge in MNCs: The role of sources of subsidiary knowledge and organizational context. *Journal of International Management*, 8(1), 49-67.
- Foxall, G. (1984). Evidence for attitudinal-behavioural consistency: Implications for consumer research paradigms. *Journal of Economic Psychology*, 5(1), 71-92.
- Fulk, J., Flanagin, A. J., Kalman, M. E., Monge, P. R., & Ryan, T. (1996). Connective and communal public goods in interactive communication systems. *Communication Theory*, 6(1), 60-87.
- Fürst, G., & Grin, F. (2018). A comprehensive method for the measurement of everyday creativity. *Thinking Skills and Creativity*, 28, 84-97.
- George, D., & Mallery, M. (2003). Using SPSS for Windows step by step: a simple guide and reference.
- Ghauri, P. N. and Grønhaug, K. (2005). Research methods in business studies: A practical guide. Pearson Education.
- Gong, Y., Cheung, S. Y., Wang, M., & Huang, J. C. (2012). Unfolding the proactive process for creativity: Integration of the employee proactivity, information exchange, and psychological safety perspectives. *Journal of management*, 38(5), 1611-1633.
- goodness of fit. *Psychological Bulletin*, 107, 247-255.

- Gope, S., Elia, G., & Passiante, G. (2018). The effect of HRM practices on knowledge management capacity: a comparative study in Indian IT industry. *Journal of Knowledge Management*.
- Gould-Williams, J., & Davies, F. (2005). Using social exchange theory to predict the effects of HRM practice on employee outcomes: An analysis of public sector workers. *Public management review*, 7(1), 1-24.
- Govindarajulu, N., & Daily, B. F. (2004). Motivating employees for environmental improvement. *Industrial management & data systems*, 104(4), 364-372.
- Govindarajulu, N., & Daily, B. F. (2004). Motivating employees for environmental improvement. *Industrial management & data systems*, 104(4), 364-372.
- Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic management journal*, 17(S2), 109-122.
- Graves, L. M., & Sarkis, J. (2018). The role of employees' leadership perceptions, values, and motivation in employees' proenvironmental behaviors. *Journal of cleaner production*, 196, 576-587.
- Griffin, A., & Page, A. L. (1996). PDMA success measurement project: recommended measures for product development success and failure. *Journal of product innovation management*, 13(6), 478-496.
- Grunert, S. C., & Juhl, H. J. (1995). Values, environmental attitudes, and buying of organic foods. *Journal of economic psychology*, 16(1), 39-62.

- Guerci, M., Montanari, F., Scapolan, A., & Epifanio, A. (2016). Green and nongreen recruitment practices for attracting job applicants: exploring independent and interactive effects. *The International Journal of Human Resource Management*, 27(2), 129-150.
- Gull, S., & Idrees, H. (2022). Green training and organizational efficiency: mediating role of green competencies. *European Journal of Training and Development*, 46(1/2), 105-119.
- Gupta, H. (2018). Assessing organizations performance on the basis of GHRM practices using BWM and Fuzzy TOPSIS. *Journal of environmental management*, 226, 201-216.
- Gürlek, M., & Koseoglu, M. A. (2021). Green innovation research in the field of hospitality and tourism: The construct, antecedents, consequences, and future outlook. *The Service Industries Journal*, 41(11-12), 734-766.
- Haftu, G. G. (2019). Information communications technology and economic growth in Sub-Saharan Africa: A panel data approach. *Telecommunications Policy*, 43(1), 88-99.
- Hair, J. F., Anderson, R. E., Babin, B. J., & Black, W. C. (2010). *Multivariate data analysis: A global perspective* (Vol. 7).
- Hair, J. F., Black, B., Babin, B., Anderson, R. E. and Tatham, R. L. (2006a). *Multivariate data analysis* (Vol. 6).
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (Vol. 6).
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (Vol. 6).

- Hair, J. F., Ringle, C. M., & Sarstedt, M., 2013. Partial Least Squares Structural Equation Modeling: Rigorous Applications, Better Results and Higher Acceptance. *Long Range Planning*, 46(1-2), pp. 1- 12. doi: 10.1016/j.lrp.2013.01.001.
- Hair, J. F., Tatham, R. L., Anderson, R. E. and Black, W. (2006b). Multivariate data analysis. (Vol. 6), Pearson Prentice Hall Upper Saddle River, NJ.
- Halbesleben, J. R., Novicevic, M. M., Harvey, M. G., & Buckley, M. R. (2003). Awareness of temporal complexity in leadership of creativity and innovation: A competency-based model. *The Leadership Quarterly*, 14(4-5), 433-454.
- Hameed, Z., Khan, I. U., Islam, T., Sheikh, Z., & Naeem, R. M. (2020). Do green HRM practices influence employees' environmental performance? *International Journal of Manpower*.
- Hansen, M. T. (2002). Knowledge networks: Explaining effective knowledge sharing in multiunit companies. *Organization science*, 13(3), 232-248.
- Harris, L. S., & Kuhnert, K. W. (2008). Looking through the lens of leadership: A constructive developmental approach. *Leadership & Organization Development Journal*.
- Harvey, G., Williams, K., & Probert, J. (2013). Greening the airline pilot: HRM and the green performance of airlines in the UK. *The International Journal of Human Resource Management*, 24(1), 152-166.
- Haykin, S. S. (2009). Neural networks and learning machines/Simon Haykin.
- Heidary Dahooie, J., Afrazeh, A., & Mohammad Moathar Hosseini, S. (2011). An activity-based framework for quantification of knowledge work. *Journal of Knowledge Management*, 15(3), 422-444.

- Hemphill, J. K. (1949). Situational factors in leadership. Ohio State University. *Bureau of Educational Research Monograph*.
- Hendriks, P. (1999). Why share knowledge? The influence of ICT on the motivation for knowledge sharing. *Knowledge and process management*, 6(2), 91-100.
- Hidding, G. J., & Catterall, S. M. (1998). Anatomy of a learning organization: turning knowledge into capital at Andersen Consulting. *Knowledge and Process Management*, 5(1), 3-13.
- Hiller Connell, K. Y. (2011). Exploring consumers' perceptions of eco-conscious apparel acquisition behaviors. *Social Responsibility Journal*, 7(1), 61-73.
- Hinds, P. J., Patterson, M., & Pfeffer, J. (2001). Bothered by abstraction: The effect of expertise on knowledge transfer and subsequent novice performance. *Journal of applied psychology*, 86(6), 1232.
- Hines, J. M., Hungerford, H. R., & Tomera, A. N. (1987). Analysis and synthesis of research on responsible environmental behavior: A meta-analysis. *The Journal of environmental education*, 18(2), 1-8.
- Hirak, R., Peng, A. C., Carmeli, A., & Schaubroeck, J. M. (2012). Linking leader inclusiveness to work unit performance: The importance of psychological safety and learning from failures. *Leadership Quarterly*, 23(1), 107-117. <https://doi.org/10.1016/j.leaqua.2011.11.009>
- Hollander, E. (2012). Inclusive leadership: The essential leader-follower relationship. *Routledge*
- Hollander, E.P., 2009. Inclusive Leadership: The Essential Leader-follower Relationship. *Routledge/Taylor & Francis Group*

- Holtom, B. C., Mitchell, T. R., Lee, T. W., & Eberly, M. B. (2008). 5 turnover and retention research: a glance at the past, a closer review of the present, and a venture into the future. *The Academy of Management Annals*, 2(1), 231-274.
- Horng, J. S., Tsai, C. Y., Yang, T. C., & Liu, C. H. (2016). Exploring the relationship between proactive personality, work environment and employee creativity among tourism and hospitality employees. *International Journal of Hospitality Management*, 54, 25-34.
- House, R. J. (1977). A theory of charismatic leadership. *Leadership: The cutting edge*.
- Howell, J. M., & Hall-Merenda, K. E. (1999). The ties that bind: The impact of leader-member exchange, transformational and transactional leadership, and distance on predicting follower performance. *Journal of applied psychology*, 84(5), 680.
- Hsu, S.-H. (2012). Effects of Competitive Strategy, Knowledge Management and E-Business Adoption on Performance. *J. Hum. Resour. Adult Learn.* 8 (2), 42
- Hu, L. & Bentler, P. (1999). Cut-off criteria for fit indices in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modelling*, 6, 1-55.
- Hunt, S. D., & Morgan, R. M. (1995). The comparative advantage theory of competition. *Journal of marketing*, 59(2), 1-15.
- Huang, C. L., & Kung, F. H. (2011). Environmental consciousness and intellectual capital management: Evidence from Taiwan's manufacturing industry. *Management decision*.
- Iacobucci, D., Saldanha, N., & Deng, X. (2007). A meditation on mediation: evidence that structural equations models perform better than regressions. *Journal of Consumer Psychology*, 17(2), 139-153

- Islam, M. A., Mendy, J., Haque, A. A., & Rahman, M. (2022). Green human resource management practices and millennial employees' retention in small and medium enterprises: The moderating impact of creativity climate from a developing country perspective. *Business Strategy & Development*, 5(4), 335-349.
- Jabbour, C. J. C., & de Sousa Jabbour, A. B. L. (2016). Green human resource management and green supply chain management: Linking two emerging agendas. *Journal of cleaner production*, 112, 1824-1833.
- Jabbour, C. J. C., & Santos, F. C. A. (2008). The central role of human resource management in the search for sustainable organizations. *The International Journal of Human Resource Management*, 19(12), 2133-2154.
- Jabbour, C. J. C., Santos, F. C. A., & Nagano, M. S. (2008). Environmental management system and human resource practices: is there a link between them in four Brazilian companies? *Journal of Cleaner Production*, 16(17), 1922-1925.
- Jabbour, C. J. C., Sarkis, J., de Sousa Jabbour, A. B. L., Renwick, D. W. S., Singh, S. K., Grebinevych, O., ... & Godinho Filho, M. (2019). Who is in charge? A review and a research agenda on the 'human side' of the circular economy. *Journal of cleaner production*, 222, 793-801.
- Jackson, S. E., & Seo, J. (2010). The greening of strategic HRM scholarship. *Organization Management Journal*, 7(4), 278-290.
- Jackson, S. E., Chuang, C. H., Harden, E. E., & Jiang, Y. (2006). Toward developing human resource management systems for knowledge-intensive teamwork. In *Research in*

personnel and human resources management (Vol. 25, pp. 27-70). Emerald Group Publishing Limited.

Jackson, S. E., Renwick, D. W., Jabbour, C. J., & Muller-Camen, M. (2011). State-of-the-art and future directions for green human resource management: Introduction to the special issue. *German Journal of Human Resource Management*, 25(2), 99-116.

Jackson, S. E., Schuler, R. S., & Jiang, K. (2014). An aspirational framework for strategic human resource management. *The Academy of Management Annals*, 8(1), 1–56.

Jahanger, A., Usman, M., & Balsalobre-Lorente, D. (2022). Autocracy, democracy, globalization, and environmental pollution in developing world: fresh evidence from STIRPAT model. *Journal of Public Affairs*, 22(4), e2753.

Jaiswal, N. K., & Dhar, R. L. (2015). Transformational leadership, innovation climate, creative self-efficacy and employee creativity: A multilevel study. *International journal of hospitality management*, 51, 30-41.

Javed, B., Naqvi, S. M. M. R., Khan, A. K., Arjoon, S., & Tayyeb, H. H. (2019). Impact of inclusive leadership on innovative work behavior: The role of psychological safety. *Journal of Management & Organization*, 25(1), 117-136.

Jeruto, R., Kwasira, J., Chelule, J., & Rop, W. (2017). The influence of green training and development PRACTICE on environmental sustainability in selected service based STATE corporations in KENYA. *Journal of Human Resource and Leadership*, 2(6), 89-100.

- Jia, J., Liu, H., Chin, T., & Hu, D. (2018). The continuous mediating effects of GHRM on employees' green passion via transformational leadership and green creativity. *Sustainability, 10*(9), 3237.
- Jiang, Z. (2020). Research on the impact of inclusive leadership on team knowledge sharing—a multi-level model test with two-dimensional identity as the mediator. *Academic Journal of Engineering and Technology Science, 3*(7), 23-36.
- Jolly, P. M., & Lee, L. (2021). Silence is not golden: Motivating employee voice through inclusive leadership. *Journal of Hospitality & Tourism Research, 45*(6), 1092-1113.
- Jonassen, D. (2001). Can you train employees to solve problems?. *Performance Improvement, 40*(9), 18-24.
- Jonker, J., & Pennink, B. (2010). The essence of research methodology: A concise guide for master and PhD students in management science. *Springer Science & Business Media*.
- Jöreskog, K. G., & Sörbom, D. (1984). LISREL-VI user's guide 3rd edn. IN: *Scientific Software, Mooresville*.
- Judge, T. A., & Piccolo, R. F. (2004). Transformational and transactional leadership: a meta-analytic test of their relative validity. *Journal of applied psychology, 89*(5), 755.
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika, 39*, 31–36.
- Kamal, M., Usman, M., Jahanger, A., & Balsalobre-Lorente, D. (2021). Revisiting the role of fiscal policy, financial development, and foreign direct investment in reducing environmental pollution during globalization mode: evidence from linear and nonlinear panel data approaches. *Energies, 14*(21), 6968.

- Kang, G. D., & James, J. (2007). Revisiting the concept of a societal orientation: conceptualization and delineation. *Journal of Business Ethics*, 73(3), 301-318.
- Kankanhalli, A., Tan, B. C., & Wei, K. K. (2005). Contributing knowledge to electronic knowledge repositories: An empirical investigation. *MIS quarterly*, 113-143.
- Kapil, K. (2015b). Green HRM: Trends & Prospects. *International Journal of Management Research*, 3(1), 43-55.
- Kapil, P. (2015a). Green HRM-Engaging Human Resource in reducing carbon footprint and enhancing environment sustainability: A case study-based approach. *International Journal of Engineering Technology Science and Research*, 2(1), 5-14.
- Karin, S., Matthijs, M., Nicole, T., Sandra, G., & Claudia, G. (2010). How to support innovative behaviour? The role of LMX and satisfaction with HR practices. *Technology and investment*, 2010.
- Kasemsap, K. (2018). The roles of information technology and knowledge management in project management metrics. In *Global business expansion: Concepts, methodologies, tools, and applications* (pp. 1191-1221). IGI Global.
- Katalyst Labs. (2022). 10 Sustainability Startups in Pakistan. Retrieved from <https://katalystlabs.pk/10-sustainability-startups-in-pakistan/>
- Kaur, B., & Kaur, M. (2022). Association amid inclusive leadership and employee involvement in creativity: Psychological safety as a mediator. *Journal of New Zealand Studies*, NS34.

- Kautish, P., & Sharma, R. (2019). Value orientation, green attitude and green behavioral intentions: an empirical investigation among young consumers. *Young Consumers, 20*(4), 338-358.
- Kautish, P., & Sharma, R. (2021). Study on relationships among terminal and instrumental values, environmental consciousness and behavioral intentions for green products. *Journal of Indian Business Research, 13*(1), 1-29.
- Kaynak, R., & Ekşi, S. (2014). Effects of personality, environmental and health consciousness on understanding the anti-consumptional attitudes. *Procedia-Social and Behavioral Sciences, 114*, 771-776.
- Kaynak, R., & Ekşi, S. (2014). Effects of personality, environmental and health consciousness on understanding the anti-consumptional attitudes. *Procedia-Social and Behavioral Sciences, 114*, 771-776.
- Khan, I., Zakari, A., Zhang, J., Dagar, V., & Singh, S. (2022). A study of trilemma energy balance, clean energy transitions, and economic expansion in the midst of environmental sustainability: new insights from three trilemma leadership. *Energy, 248*, 123619.
- Khazanchi, S., & Masterson, S. S. (2011). Who and what is fair matters: A multi-foci social exchange model of creativity. *Journal of Organizational behavior, 32*(1), 86-106.
- Kim, W. G., Mcginley, S., Choi, H., & Agmapisarn, C. (2020). Hotels' environmental leadership and employees' organizational citizenship behavior. *International Journal of Hospitality Management, 87*, 102375. <https://doi.org/10.1016/j.ijhm.2019.10237>.

- Kim, Y. (2017). Consumer responses to the food industry's proactive and passive environmental CSR, factoring in price as CSR tradeoff. *Journal of business ethics, 140*, 307-321.
- Kim, Y. J., Kim, W. G., Choi, H. M., & Phetvaroon, K. (2019). The effect of green human resource management on hotel employees' eco-friendly behavior and environmental performance. *International Journal of Hospitality Management, 76*, 83-93.
- Kinnear, T. C., Taylor, J. R., & Ahmed, S. A. (1974). Ecologically concerned consumers: who are they? Ecologically concerned consumers can be identified. *Journal of marketing, 38*(2), 20-24.
- Kjaerheim, G. (2005). Cleaner production and sustainability. *Journal of cleaner production, 13*(4), 329-339.
- Ko, J., & Hur, S. (2014). The impacts of employee benefits, procedural justice, and managerial trustworthiness on work attitudes: Integrated understanding based on social exchange theory. *Public Administration Review, 74*(2), 176–187.
- Koenig, H. G. (2012). Religion, spirituality, and health: The research and clinical implications. *International Scholarly Research Notices, 2012*. <https://doi.org/10.5402/2012/278730>
- Kothari, C. R. (1990). *Research Methodology: Methods and Techniques* (2nd ed.). New Delhi: New Age International (P) Ltd.
- Kremer, H., Villamor, I., & Aguinis, H. (2019). Innovation leadership: Best-practice recommendations for promoting employee creativity, voice, and knowledge sharing. *Business Horizons, 62*(1), 65-74.

- Kriem, M. S. (2009). Mobile telephony in Morocco: A changing sociality. *Media, culture & society*, 31(4), 617-632.
- Kuhnert, K. W. (1994). Transforming leadership: Developing people through delegation.
- Kuhnert, K. W., & Lewis, P. (1987). Transactional and transformational leadership: A constructive/developmental analysis. *Academy of Management review*, 12(4), 648-657.
- Kumar, R. (2005). *Research Methodology: A step-by-step guide for beginners*. Sage publications.
- Kumar, S., & Barua, M. K. (2022). A modeling framework of green practices to explore their interrelations as a conduit to policy. *Journal of Cleaner Production*, 335, 130301.
- Kuvaas, B., & Dysvik, A. (2010). Exploring alternative relationships between perceived investment in employee development, perceived supervisor support and employee outcomes. *Human Resource Management Journal*, 20(2), 138-156.
- Lawler, E. J., Thye, S. R., & Yoon, J. (2008). Social exchange and micro social order. *American sociological review*, 73(4), 519-542.
- Lee, J. A., & Holden, S. J. (1999). Understanding the determinants of environmentally conscious behavior. *Psychology & Marketing*, 16(5), 372-392.
- Li, W., Bhutto, T. A., Xuhui, W., Maitlo, Q., Zafar, A. U., & Bhutto, N. A. (2020). Unlocking employees' green creativity: The effects of green transformational leadership, green intrinsic, and extrinsic motivation. *Journal of Cleaner Production*, 255, 120229.
- Liebowitz, J. (2010). The role of HR in achieving a sustainability culture. *Journal of sustainable development*, 3(4), 50-57.

- Lin, C. P. (2007b). To share or not to share: Modeling tacit knowledge sharing, its mediators and antecedents. *Journal of business ethics*, 70(4), 411-428.
- Lin, S. T., & Niu, H. J. (2018). Green consumption: Environmental knowledge, environmental consciousness, social norms, and purchasing behavior. *Business Strategy and the Environment*, 27(8), 1679-1688.
- Lin, Y. H., & Chen, Y. S. (2017). Determinants of green competitive advantage: the roles of green knowledge sharing, green dynamic capabilities, and green service innovation. *Quality & Quantity*, 51, 1663-1685.
- Lin, Y. H., & Chen, Y. S. (2017). Determinants of green competitive advantage: the roles of green knowledge sharing, green dynamic capabilities, and green service innovation. *Quality & Quantity*, 51, 1663-1685.
- Loi, R., Chan, K. W., & Lam, L. W. (2014). Leader–member exchange, organizational identification, and job satisfaction: A social identity perspective. *Journal of Occupational and Organizational psychology*, 87(1), 42-61.
- Lopes, C. M., Scavarda, A., Hofmeister, L. F., Thome, A. M. T., & Vaccaro, G. L. R. (2017). An analysis of the interplay between organizational sustainability, knowledge management, and open innovation. *Journal of Cleaner Production*, 142, 476-488.
<https://doi.org/10.1016/j.jclepro.2016.10.083>
- MacKenzie, S. B., Podsakoff, P. M., & Rich, G. A. (2001). Transformational and transactional leadership and salesperson performance. *Journal of the academy of Marketing Science*, 29, 115-134.

- MacMoore, B.V. (1927). The May Conference on Leadership. *The Personnel Journal*, 6.
- Madianou, M. (2014). Smartphones as polymedia. *Journal of Computer-Mediated Communication*, 19(3), 667-680.
- Mandip, G. (2012). Green HRM: People management commitment to environmental sustainability. *Research Journal of Recent Sciences*, ISSN, 2277, 2502.
- Marrocu, E., & Paci, R. (2011). They arrive with new information. Tourism flows and production efficiency in the European regions. *Tourism Management*, 32(4), 750-758.
- Marsh, H. W., & Hocevar, D. (1985). Application of confirmatory factor analysis to the study of self-concept: First-and higher order factor models and their invariance across groups. *Psychological bulletin*, 97(3), 562.
- Martínez García de Leaniz, P., Herrero Crespo, Á., & Gómez López, R. (2018). Customer responses to environmentally certified hotels: The moderating effect of environmental consciousness on the formation of behavioral intentions. *Journal of Sustainable Tourism*, 26(7), 1160-1177.
- Masri, H. A., & Jaaron, A. A. (2017). Assessing green human resources management practices in Palestinian manufacturing context: An empirical study. *Journal of cleaner production*, 143, 474-489.
- Mayer, D. M., Kuenzi, M., & Greenbaum, R. L. (2010). Examining the link between ethical leadership and employee misconduct: The mediating role of ethical climate. *Journal of business ethics*, 95, 7-16.

- Mazzi, A., Toniolo, S., Mason, M., Aguiari, F., & Scipioni, A. (2016). What are the benefits and difficulties in adopting an environmental management system? The opinion of Italian organizations. *Journal of Cleaner Production*, 139, 873-885.
- McDonald, R. P. & Marsh, H. W. (1990). Choosing a multivariate model: Noncentrality and
- McIntosh, M. J. (2009). Determinants of environmentally conscious consumer behaviors: Measuring the value consumer environmentalism and predicting behavioral intention to purchase environmentally friendly products. University of Massachusetts Amherst.
- Merron, K., Fisher, D. and Torbert, W. (1987), "Meaning making and management action",. *Group & Organization Studies*, Vol. 12 No 3, pp. 274-86.
- Mesmer-Magnus, J. R., & DeChurch, L. A. (2009). Information sharing and team performance: a meta-analysis. *Journal of applied psychology*, 94(2), 535.
- Meyer, L. S., Gamst, G., & Guarino, J. (2006). Analysis of Variance Designs: A Conceptual and Computational Approach with SPSS and SAS.
- Milfont, T.L. (2007), cited in Tan, B.C. (2011), "The roles of knowledge, threat, and PCE on green purchase behaviour", *International Journal of Business Management*, Vol. 6 No. 12, pp. 14-26
- Milliman, J., & Clair, J. (1996). Best environmental HRM practices in the US. In W. Wehrmeyer (Ed.), *Greening People: Human Resource and Environmental Management* (pp. 49-74). Sheffield, UK: *Greenleaf Publishing*
- Mishra, S. K. (2014). Linking perceived organizational support to emotional labour. *Personnel Review*, 43(6), 845–860.

- Mishal, A., Dubey, R., Gupta, O. K., & Luo, Z. (2017). Dynamics of environmental consciousness and green purchase behaviour: an empirical study. *International Journal of Climate Change Strategies and Management*, 9(5), 682-706.
- Mitchell, R., Boyle, B., Parker, V., Giles, M., Chiang, V., & Joyce, P. (2015). Managing inclusiveness and diversity in teams: How leader inclusiveness affects performance through status and team identity. *Human Resource Management*, 54(2), 217-239.
- Mittal, S., & Dhar, R. L. (2016). Effect of green transformational leadership on green creativity: A study of tourist hotels. *Tourism Management*, 57, 118-127.
- Mittal, S., & Dhar, R. L. (2016). Effect of green transformational leadership on green creativity: A study of tourist hotels. *Tourism Management*, 57, 118-127.
- Mittal, S., & Dhar, R. L. (2016). Effect of green transformational leadership on green creativity: A study of tourist hotels. *Tourism Management*, 57, 118-127.
- Monhemius, K. G. (1992). Environmentally Conscious Purchase Behavior of Consumers.
- Morschheuser, B., Hamari, J., Werder, K., & Abe, J. (2017). How to gamify? A method for designing gamification.
- Mostafa, M. M. (2007). Gender differences in Egyptian consumers' green purchase behaviour: the effects of environmental knowledge, concern and attitude. *International journal of consumer studies*, 31(3), 220-229.
- Mousa, S. K., & Othman, M. (2020). The impact of green human resource management practices on sustainable performance in healthcare organisations: A conceptual framework. *Journal of Cleaner Production*, 243, 118595.

- Mousa, S. K., & Othman, M. (2020). The impact of green human resource management practices on sustainable performance in healthcare organisations: A conceptual framework. *Journal of Cleaner Production*, 243, 118595.
- Mulvaney, B. (2018). *A Phenomenological Study of Marzano's 21 Leadership Responsibilities Practiced by Title I High School Principals in Southeast Texas With High Student Achievement*. Lamar University-Beaumont.
- Mura, M., Lettieri, E., Radaelli, G., & Spiller, N. (2013). Promoting professionals' innovative behaviour through knowledge sharing: the moderating role of social capital. *Journal of Knowledge Management*.
- Nancy, M. D. (2000). *Common Knowledge: How Companies Thrive by Sharing What They Know* (1st ed.). Boston, MA: *Harvard Business School Press*
- Naru, A. S., & Rehman, A. (2020). Impact of job insecurity and work overload on employee performance with the mediating role of employee stress: A case of Pakistan's fast-food industry. *International Journal of Human Resource Studies*, 10(1), 304-331.
- Nembhard, I. M., & Edmondson, A. C. (2006). Making it safe: The effects of leader inclusiveness and professional status on psychological safety and improvement efforts in health care teams. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 27(7), 941-966.
- Nguyen, T. H. H., Elmagrhi, M. H., Ntim, C. G., & Wu, Y. (2021). Environmental Performance, Sustainability, Governance and Financial Performance: Evidence from Heavily Polluting Industries in China. *Business Strategy and the Environment*, 30(5), 2313–2331.
<https://doi.org/10.1002/bse.2748>

- Nishii, L. H. (2013). The benefits of climate for inclusion for gender-diverse groups. *Academy of Management Journal*, 56(6), 1754–1774. <http://doi.org/10.5465/amj.2009.0823>
- Nizam, H. A., Zaman, K., Khan, K. B., Batool, R., Khurshid, M. A., Shoukry, A. M., ... & Gani, S. (2020). Achieving environmental sustainability through information technology: “Digital Pakistan” initiative for green development. *Environmental Science and Pollution Research*, 27, 10011-10026.
- Nonaka, I., & Takeuchi, H. (1995). *The Knowledge Creating Company*: Oxford University Press. *New York*, 995.
- Northouse, P. G. (2016). *Leadership: theory and practice*/Peter Northouse.
- Norton, T. A., Zacher, H., & Ashkanasy, N. M. (2014). Organisational sustainability policies and employee green behaviour: The mediating role of work climate perceptions. *Journal of Environmental Psychology*, 38, 49-54.
- Obaid, T. (2015). The impact of green recruitment, green training and green learning on the firm performance: conceptual paper. *International Journal of Applied Research*, 1(12), 951-953.
- OECD. (2000). *Information technology outlook*. OECD Library. Retrieved from https://www.oecd-ilibrary.org/science-and-technology/information-technology-outlook-2000_it_outlook-2000-en (Accessed October 17, 2018).
- of Khyber Pakhtunkhwa. National University of Modern Languages Islamabad Pakistan.
- Ogbeibu, S., Emelifeonwu, J., Senadjki, A., Gaskin, J., & Kaivo-Oja, J. (2020). Technological turbulence and greening of team creativity, product innovation, and human resource

management: Implications for sustainability. *Journal of Cleaner Production*, 244, 118703.
<https://doi.org/10.1016/j.jclepro.2019.118703>

Ogbeibu, S., Emelifeonwu, J., Senadjki, A., Gaskin, J., & Kaivo-oja, J. (2020). Technological turbulence and greening of team creativity, product innovation, and human resource management: Implications for sustainability. *Journal of Cleaner Production*, 244, 118703.

Ohio State University: *Bureau of Educational Research and Service*.

Ojo, A. O., & Raman, M. (2019). Role of green HRM practices in employees' pro-environmental IT practices. In *New Knowledge in Information Systems and Technologies: Volume 1* (pp. 678-688). Springer International Publishing.

Ojo, A. O., Raman, M., & Downe, A. G. (2019). Toward green computing practices: A Malaysian study of green belief and attitude among Information Technology professionals. *Journal of cleaner production*, 224, 246-255.

Ones, D. S. Dilchert S.(2012a). Employee green behaviors. *Managing human resources for environmental sustainability*, 85-116.

Ones, D. S. Dilchert S.(2012a). Employee green behaviors, in *Managing Human Resources for Environmental Sustainability*, eds Jackson SE, Ones DS, Dilchert S.(San Francisco, CA: Jossey-Bass, 85-116.

Opatha, H. H. P. (2013). Green human resource management a simplified introduction.

- Oppong-Tawiah, D., Webster, J., Staples, S., Cameron, A. F., de Guinea, A. O., & Hung, T. Y. (2020). Developing a gamified mobile application to encourage sustainable energy use in the office. *Journal of Business Research*, *106*, 388-405.
- Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel psychology*, *48*(4), 775-802.
- Osborne, J., & Waters, E. (2002). Four assumptions of multiple regressions that researchers
- Osterloh, M., & Frey, B. S. (2000). Motivation, knowledge transfer, and organizational forms. *Organization science*, *11*(5), 538-550.
- Otto, F. E., Zachariah, M., Saeed, F., Siddiqi, A., Kamil, S., Mushtaq, H., ... & Clarke, B. (2023). Climate change increased extreme monsoon rainfall, flooding highly vulnerable communities in Pakistan. *Environmental Research: Climate*, *2*(2), 025001.
- Oyedokun, O. O. (2019). Green human resource management practices and its effect on the sustainable competitive edge in the Nigerian manufacturing industry (Dangote) (Doctoral dissertation, Dublin Business School).
- Paillé, P., Boiral, O., & Chen, Y. (2013). Linking environmental management practices and organizational citizenship behaviour for the environment: a social exchange perspective. *The International Journal of Human Resource Management*, *24*(18), 3552-3575.
- Patel, R. I., Metchev, S. A., & Heinze, A. (2014). A sensitive identification of warm debris disks in the solar neighborhood through precise calibration of saturated WISE photometry. *The Astrophysical Journal Supplement Series*, *212*(1), 10.

Pedhazur, E. J. (1997). *Multiple Regression in Behavioural Research: Explanation and Prediction*.
Harcourt Brace College Publishers

Peng, J., Zhang, G., Fu, Z., & Tan, Y. (2014). An empirical investigation on organizational innovation and individual creativity. *Information Systems and e-Business Management*, 12, 465-489.

Pham, N. T., Thanh, T. V., Tučková, Z., & Thuy, V. T. N. (2020). The role of green human resource management in driving hotel's environmental performance: Interaction and mediation analysis. *International Journal of Hospitality Management*, 88, 102392.

Phillips, L. (2007). Go green to gain the edge over rivals. *People Management*, 23(9), 1-9.

Pinzone, M., Guerci, M., Lettieri, E., & Huisingh, D. (2019). Effects of 'green' training on pro-environmental behaviors and job satisfaction: Evidence from the Italian healthcare sector. *Journal of Cleaner Production*, 226, 221-232.

Pless, N., Maak, T., 2004. Building an inclusive diversity culture: principles, processes and practice. *J. Bus. Ethics* 54 (2), 129–147. <https://doi.org/10.1007/s10551-004-9465-8>

Portela, D. M. P. (2012). Contributo das técnicas de análise fatorial para o estudo do programa ocupação científica de jovens nas férias (Doctoral dissertation).

Prasad, R. S. (2013). Green HRM-partner in sustainable competitive growth. *Journal of Management Sciences and Technology*, 1(1), 15-18.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879-891.

- Priyankara, H. P. R., Luo, F., Saeed, A., Nubuor, S. A., & Jayasuriya, M. P. F. (2018). How does leader's support for environment promote organizational citizenship behaviour for environment? A multi-theory perspective. *Sustainability, 10*(1), 271
- Provasnek, A. K., Sentic, A., & Schmid, E. (2017). Integrating eco- innovations and stakeholder engagement for sustainable development and a social license to operate. *Corporate Social Responsibility and Environmental Management, 24*, 173–185.
- Przychodzen, W., Gómez-Bezares, F., & Przychodzen, J. (2018). Green information technologies practices and financial performance—the empirical evidence from German publicly traded companies. *Journal of Cleaner Production, 201*, 570-579.
- Pudaruth, S., Juwaheer, T. D., & Seewoo, Y. D. (2015). Gender-based differences in understanding the purchasing patterns of eco-friendly cosmetics and beauty care products in Mauritius: a study of female customers. *Social responsibility journal, 11*(1), 179-198.
- Pulakos, E. D., Dorsey, D. W., & Borman, W. C. (2003). Hiring for knowledge-based competition. In S. E. Jackson, M. A. Hitt & A. S. Denisi (Eds.), *Managing knowledge for sustained competitive advantage: Designing strategies for effective human resource management (pp. 155-176)*. San Francisco, CA: Jossey-Bass
- 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*.
- 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*.

- 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.
- Rafferty, A. E., & Griffin, M. A. (2004). Dimensions of transformational leadership: Conceptual and empirical extensions. *The leadership quarterly*, 15(3), 329-354.
- Rahman, W. (2012). The Relationship of Attitudinal and Behavioural Outcomes with
- Ramus, C. A. (2001). Organizational support for employees: Encouraging creative ideas for environmental sustainability. *California management review*, 43(3), 85-105.
- Ramus, C. A. (2002). Encouraging innovative environmental actions: what companies and managers must do. *Journal of world business*, 37(2), 151-164.
- Ramus, C. A., & Killmer, A. B. (2007). Corporate greening through prosocial extrarole behaviours—a conceptual framework for employee motivation. *Business Strategy and the Environment*, 16(8), 554-570.
- Ramus, C. A., & Steger, U. (2000). The roles of supervisory support behaviors and environmental policy in employee “Ecoinitiatives” at leading-edge European companies. *Academy of Management journal*, 43(4), 605-626.
- Randel, A. E., Dean, M. A., Ehrhart, K. H., Chung, B., & Shore, L. (2016). Leader inclusiveness, psychological diversity climate, and helping behaviors. *Journal of Managerial Psychology*, 31(1), 216-234.
- Randel, A. E., Galvin, B. M., Shore, L. M., Ehrhart, K. H., Chung, B. G., Dean, M. A., & Kedharnath, U. (2018). Inclusive leadership: Realizing positive outcomes through

- belongingness and being valued for uniqueness. *Human Resource Management Review*, 28(2), 190-203.
- Razab, M. F., Udin, Z. M., & Osman, W. N. (2015). Understanding the role of GHRM towards environmental performance. *Journal of Global Business and Social entrepreneurship (GBSE)*, 1(2), 118-125.
- Reb, J., Chaturvedi, S., Narayanan, J., & Kudesia, R. S. (2018). Leader mindfulness and employee performance: A sequential mediation model of LMX quality, interpersonal justice, and employee stress. *Journal of Business Ethics*, 1-19
- Ren, S., Tang, G., & Jackson, S. E. (2018). Green human resource management research in emergence: A review and future directions. *Asia Pacific Journal of Management*, 35(3), 769–803. <https://doi.org/10.1007/s10490-017-9532-1>
- Renwick, D. S. W., Jabbour, C. J. C., Muller-Camen, M., Wilkinson, A., Renwick, D. W. S., Jabbour, C. J. C., & MullerCamen, M. (2016). Contemporary developments in green (environmental) HRM scholarship. *The International Journal of Human Resource Management*, 27(2), 114–128. <https://doi.org/10.1080/09585192.2015.1105844>
- Renwick, D. W., Redman, T., & Maguire, S. (2013). Green human resource management: A review and research agenda. *International journal of management reviews*, 15(1), 1-14.
- Rieckmann, K. R. (2016). Self-perceived leadership styles of male and female superintendents in Wisconsin public schools (Doctoral dissertation, Edgewood College).
- Roberts, J. A. (1996). Green consumers in the 1990s: Profile and implications for advertising. *Journal of business research*, 36(3), 217-231.

- Rost, J. C. (1991). *Leadership for the twenty-first century*. Greenwood Publishing Group.
- Rubel, M. R. B., Kee, D. M. H., & Rimi, N. N. (2021). High commitment human resource management practices and hotel employees' work outcomes in Bangladesh. *Global Business and Organizational Excellence*, 40(5), 37-52.
- Rubel, M. R. B., Kee, D. M. H., & Rimi, N. N. (2021a). The influence of green HRM practices on green service behaviors: the mediating effect of green knowledge sharing. *Employee Relations: The International Journal*, 43(5), 996-1015.
- Rubel, M. R. B., Rimi, N. N., Yusliza, M. Y., & Kee, D. M. H. (2018). High commitment human resource management practices and employee service behaviour: Trust in management as mediator. *IIMB Management Review*, 30(4), 316-329.
- Ryan, J. (2006). Inclusive leadership and social justice for schools. *Leadership and Policy in schools*, 5(1), 3-17.
- Saeed, B. B., Afsar, B., Hafeez, S., Khan, I., Tahir, M., & Afridi, M. A. (2019). Promoting employee's proenvironmental behavior through green human resource management practices. *Corporate Social Responsibility and Environmental Management*, 26(2), 424–438.
- Saifi, S., & Yeung, J. (2018, May 22). Heatwave kills at least 65 in Pakistan. CNN. Retrieved September 20, 2022, from <https://www.cnn.com/2018/05/22/asia/pakistan-heat-wave-wxc-intl/index.html>
- Saini, P., & Shukla, K. K. (2016). Green recruitment: A new tool of cost cutting (conceptual study). *International Journal of Scientific and Innovative Research*, 4(1), 195-198.

- Saleh, R., & Brem, A. (2023). Creativity for sustainability: An integrative literature review. *Journal of Cleaner Production*, 135848.
- Sammalisto, K., & Brorson, T. (2008). Training and communication in the implementation of environmental management systems (ISO 14001): a case study at the University of Gävle, Sweden. *Journal of Cleaner Production*, 16(3), 299-309.
- Sammarra, A., Profili, S., Maimone, F., & Gabrielli, G. (2017). Enhancing knowledge sharing in age-diverse organizations: The role of HRM practices. In *Age Diversity in the Workplace* (Vol. 17, pp. 161-187). Emerald Publishing Limited.
- Sanchez, M.J. and Lafuente, R. (2010), “Defining and measuring environmental consciousness”, *Revista Internacional de Sociología (RIS)*, Vol. 68 No. 3, pp. 731-755.
- Sanders, K., Moorkamp, M., Torka, N., Groeneveld, S., & Groeneveld, C. (2010). How to support innovative behaviour? The role of LMX and satisfaction with HR practices. *Technology and Investment*, 01(01), 59–68. <https://doi.org/10.4236/ti.2010.11007>
- Sanyal, L. (2017). Green Human Resource Management: Policies and Practices. *African International Journal of Research in Management*, 9(5), 43-55.
- Saragih, J., Pratama, I., Wardati, J., Silalahi, E. F., & Tarigan, A. (2020). Can organizational justice dimensions mediate between leader mindfulness and leader-member exchange quality: an empirical study in Indonesia pharmaceutical firms. *Systematic Reviews in Pharmacy*, 11(2), 545-554.

- Sathyapriya, J., Kanimozhi, R., & Adhilakshmi, V. (2013). Green HRM-Delivering high performance HR systems. *International Journal of Marketing and Human Resource Management*, 4(2), 19-25.
- Saunders, L. W., McCoy, A. P., Kleiner, B. M., Lingard, H., Cooke, T., Mills, T., ... & Wakefield, R. (2016). International benchmarking for performance improvement in construction safety and health. *Benchmarking: An International Journal*, 23(4), 916-936.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*. Pearson education.
- Schahn, J., & Holzer, E. (1990). Studies of individual environmental concern: The role of knowledge, gender, and background variables. *Environment and behavior*, 22(6), 767-786.
- Schlegelmilch, B. B., Bohlen, G. M., & Diamantopoulos, A. (1996). The link between green purchasing decisions and measures of environmental consciousness. *European journal of marketing*, 30(5), 35-55.
- Schlegelmilch, B. B., Bohlen, G. M., & Diamantopoulos, A. (1996). The link between green purchasing decisions and measures of environmental consciousness. *European journal of marketing*, 30(5), 35-55.
- Schreiber, J. B., Nora, A., Stage, F. K., Barlow, E. A., & King, J. (2006). Reporting structural equation modeling and confirmatory factor analysis results: A review. *The Journal of educational research*, 99(6), 323-338.

- Schwepker Jr, C. H., & Cornwell, T. B. (1991). An examination of ecologically concerned consumers and their intention to purchase ecologically packaged products. *Journal of Public Policy & Marketing, 10*(2), 77-101.
- Seeman, M. (1960). Social status and leadership: The case of the school executive.
- Sekaran, U., & Bougie, R. (2003). *Research Methods For Business, A Skill Building Approach*, John Willey & Sons. Inc. New York, 29.
- Senge, P. (1998). Sharing Knowledge: You can't own knowledge, so why not share it?. *Executive Excellence, 15*, 11-12.
- Shah, F. A., & Rasli, A. (2015). A Meta Analytic Review of the Relationship of Gender Discrimination with Organizational Justice, Different Justice Theories and Job Related Outcomes. *Journal of Multidisciplinary Engineering Science and Technology, 2*(1), 379-392.
- Shalley, C. E. (2008). Creating roles: What managers can do to establish expectations for creative performance. *Handbook of organizational creativity*, 147-164.
- Shalley, C. E., & Gilson, L. L. (2004). What leaders need to know: A review of social and contextual factors that can foster or hinder creativity. *The leadership quarterly, 15*(1), 33-53.
- Shalley, C. E., Zhou, J., & Oldham, G. R. (2004). The effects of personal and contextual characteristics on creativity: Where should we go from here?. *Journal of management, 30*(6), 933-958.

- Sharma, K., & Bansal, M. (2013). Environmental consciousness, its antecedents and behavioural outcomes. *Journal of Indian Business Research*, 5(3), 198-214.
- Sharma, K., & Bansal, M. (2013). Environmental consciousness, its antecedents and behavioural outcomes. *Journal of Indian Business Research*, 5(3), 198-214.
- Sharma, R., & Gupta, N. (2015). Green HRM: An Innovative Approach to Environmental Sustainability Symposium conducted at the meeting of the *Twelfth AIMS International Conference on Management*.
- Sharma, R., & Gupta, N. (2015, January). Green HRM: An innovative approach to environmental sustainability. In *Proceeding of the Twelfth AIMS International Conference on Management* (pp. 2-5).
- Sheehan, M. (2016). Leadership style and behaviour, employee knowledge-sharing and innovation probability. In *Human Resource Management, Innovation and Performance* (pp. 179-196). London: Palgrave Macmillan UK.
- should always test. *Practical assessment, research & evaluation*, 8(2), 1-9.
- Shrum, L. J., McCarty, J. A., & Lowrey, T. M. (1995). Buyer characteristics of the green consumer and their implications for advertising strategy. *Journal of advertising*, 24(2), 71-82.
- Simonton, D. K. (1994). *Greatness: Who makes history and why*. Guilford Press.
- Singh, S. K., Chen, J., Del Giudice, M., & El-Kassar, A. N. (2019). Environmental ethics, environmental performance, and competitive advantage: Role of environmental training. *Technological Forecasting and Social Change*, 146, 203-211.

- Skinnarland, K. I. T., Oslo, I. A., & Sharp, P. (2014). Knowledge Sharing (KS), organizational learning and competitive advantage in a Scandinavian Hotel Company. In *Proceedings of Organizational Learning and Knowledge Conference, Hull University Business School* (p. 101).
- Song, M., Yang, M. X., Zeng, K. J., & Feng, W. (2020). Green knowledge sharing, stakeholder pressure, absorptive capacity, and green innovation: Evidence from Chinese manufacturing firms. *Business Strategy and the Environment*, 29(3), 1517-1531.
- Sosa, M. E. (2011). Where do creative interactions come from? The role of tie content and social networks. *Organization Science*, 22(1), 1-21.
- Spender, J. C., & Grant, R. M. (1996). Knowledge and the firm: Overview. *Strategic management journal*, 17(S2), 5-9.
- Srivastava, A. P., & Shree, S. (2018). Examining the effect of employee green involvement on perception of corporate social responsibility: Moderating role of green training. *Management of Environmental Quality: An International Journal*, 30(1), 197-210.
- Srivastava, A., Bartol, K. M., & Locke, E. A. (2006). Empowering leadership in management teams: Effects on knowledge sharing, efficacy, and performance. *Academy of management journal*, 49(6), 1239-1251.
- Stanley, L. R., Lasonde, K. M., & Weiss, J. (1996). The relationship between environmental issue involvement and environmentally-conscious behavior: An exploratory study. *ACR North American Advances*.

- Staples, D. S., & Webster, J. (2008). Exploring the effects of trust, task interdependence and virtualness on knowledge sharing in teams. *Information systems journal*, 18(6), 617-640.
- Stern, P. C. (1992). Psychological dimensions of global environmental change. *Annual review of psychology*, 43(1), 269-302.
- Stern, P. C. (2000). Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, 56(3), 407-424. Retrieved from <http://dx.doi.org/10.1111/0022-4537.00175>
- Stieglitz, S., Potthoff, T., & Kißmer, T. (2017). Digital nudging am Arbeitsplatz. *HMD Praxis der Wirtschaftsinformatik*, 6(54), 965-976.
- Stogdill, R. M. (1948). Personal factors associated with leadership: A survey of the literature. *The Journal of psychology*, 25(1), 35-71.
- Straughan, R. D., & Roberts, J. A. (1999). Environmental segmentation alternatives: a look at green consumer behavior in the new millennium. *Journal of consumer marketing*, 16(6), 558-575.
- Sudin, S. (2011, June). Strategic green HRM: A proposed model that supports corporate environmental citizenship. In *International Conference on Sociality and Economics Development, IPEDR* (Vol. 10, pp. 79-83).
- Szulanski, G., Cappetta, R., & Jensen, R. J. (2004). When and how trustworthiness matters: Knowledge transfer and the moderating effect of causal ambiguity. *Organization science*, 15(5), 600-613.
- Tabachnick, B. G., & Fidell, L. S. (2001). Using multivariate statistics.

- Tan, B. C. (2011). The roles of knowledge, threat, and PCE on green purchase behaviour. *International Journal of Business and Management*, 6(12), 14-27.
- Tang, G., Chen, Y., Jiang, Y., Paillé, P., & Jia, J. (2018). Green human resource management practices: scale development and validity. *Asia pacific journal of human resources*, 56(1), 31-55.
- Tarrant, M. A., & Cordell, H. K. (1997). The effect of respondent characteristics on general environmental attitude-behavior correspondence. *Environment and behavior*, 29(5), 618-637.
- Tavanti, M. (2008). Transactional leadership. *Leadership: The key concepts*, 166-170.
- Taylor, R. M. (1999). Steps on the Path of Knowledge. Milne, P.(2000). Information professionals and the knowledge aware, intelligent organization. *Australian Library Journal*, 49(2), 139-151.
- Teh, P. L., & Yong, C. C. (2011). Knowledge sharing in IS personnel: Organizational behavior's perspective. *Journal of Computer Information Systems*, 51(4), 11-21.
- Testa, F., Gusmerottia, N. M., Corsini, F., Passetti, E., & Iraldo, F. (2016). Factors affecting environmental management by small and micro firms: The importance of entrepreneurs' attitudes and environmental investment. *Corporate Social Responsibility and Environmental Management*, 23(6), 373-385.
- Thornhill, S. (2006). Knowledge, innovation and firm performance in high-and low-technology regimes. *Journal of business venturing*, 21(5), 687-703.

- Tierney, P., Farmer, S. M., & Graen, G. B. (1999). An examination of leadership and employee creativity: The relevance of traits and relationships. *Personnel psychology*, 52(3), 591-620.
- Tracey, J. B., & Hinkin, T. R. (1996). How transformational leaders lead in the hospitality industry. *International Journal of Hospitality Management*, 15(2), 165-176.
- Tung, F. C. (2016). Does transformational, ambidextrous, transactional leadership promote employee creativity? Mediating effects of empowerment and promotion focus. *International Journal of Manpower*, 37(8), 1250-1263.
- Typhina, E. (2015). Eco-apps: Design to influence environmentally friendly behavior. *International Journal of E-Services and Mobile Applications (IJESMA)*, 7(1), 1-21.
- Tze San, O., Latif, B., & Di Vaio, A. (2022). GEO and sustainable performance: the moderating role of GTD and environmental consciousness. *Journal of Intellectual Capital*, 23(7), 38-67.
- Uhlener, L., van Stel, A., Meijaard, J., & Folkeringa, M. (2007). The relationship between knowledge management, innovation and firm performance: Evidence from Dutch SMEs. *Science and Analysis of Entrepreneurship in SMEs*, 1-26.
- Urban, D. (1986). What is environmental awareness? Explanation of a multidimensional attitude construct. *Zeitschrift für Soziologie*, October, 363-377
- Usman, M., Balsalobre-Lorente, D., Jahanger, A., & Ahmad, P. (2022). Pollution concern during globalization mode in financially resource-rich countries: do financial development,

- natural resources, and renewable energy consumption matter?. *Renewable Energy*, 183, 90-102.
- Van Liere, K. D., & Dunlap, R. E. (1981). Environmental concern: Does it make a difference how it's measured? *Environment and behavior*, 13(6), 651-676.
- Vrontis, D., Christofi, M., Battisti, E., & Graziano, E. A. (2021). Intellectual capital, knowledge sharing and equity crowdfunding. *Journal of Intellectual Capital*, 22(1), 95-121.
- Wagner, M. (2013). 'Green'human resource benefits: do they matter as determinants of environmental management system implementation? *Journal of business ethics*, 114, 443-456.
- Wang, J., Yang, J., & Xue, Y. (2017). Subjective well-being, knowledge sharing and individual innovation behavior: The moderating role of absorptive capacity. *Leadership & Organization Development Journal*.
- Wang, P., Rode, J. C., Shi, K., Luo, Z., & Chen, W. (2013). A workgroup climate perspective on the relationships among transformational leadership, workgroup diversity, and employee creativity. *Group & Organization Management*, 38(3), 334-360.
- Waqar, S. H., & Siddiqui, K. (2008). A study about the leadership styles of public and private school principals. *Journal of Elementary Education*, 18(1-2), 5-20.
- Waterman, R. H., & Peters, T. J. (1982). *In search of excellence: Lessons from America's best-run companies* (p. 360). New York: Harper & Row.

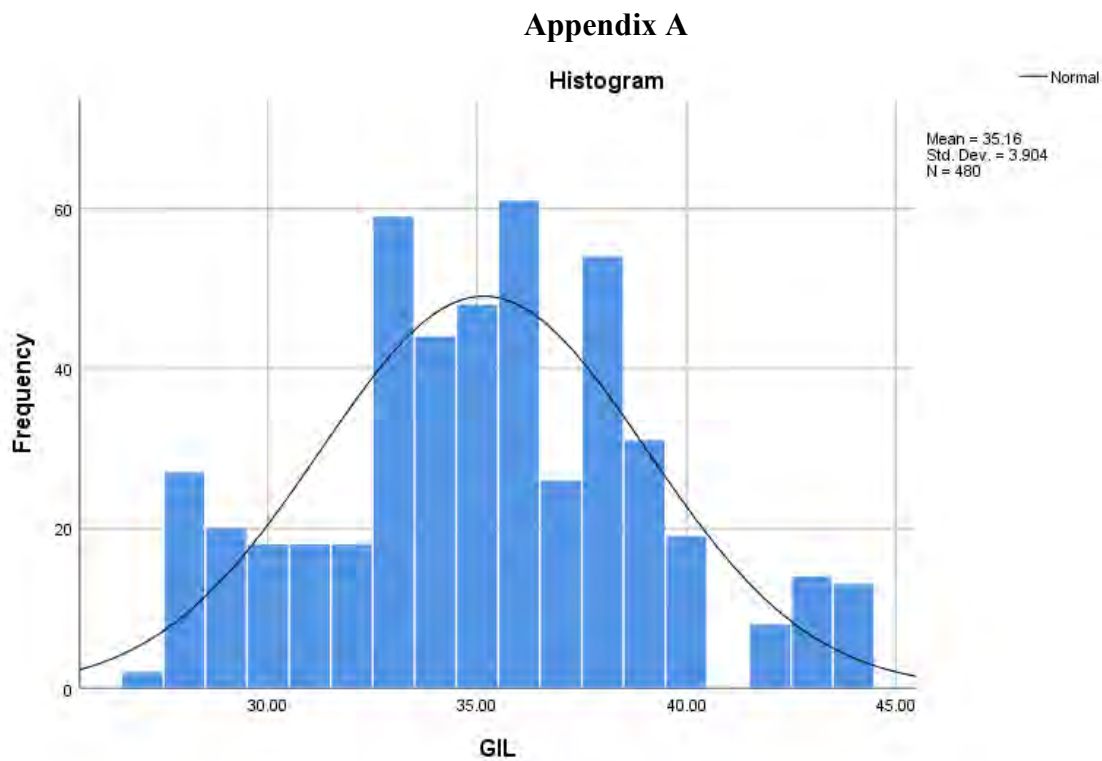
- Wayne, S. J., Shore, L. M., & Liden, R. C. (1997). Perceived organizational support and leader-member exchange: A social exchange perspective. *Academy of Management Journal*, 40(1), 82-111.
- Wehrmeyer, W. (1996). *Greening People: Human Resources and Environmental Management*. Sheffield: *Greenleaf Publishing*.
- Weigel, R., & Weigel, J. (1978). Environmental concern: The development of a measure. *Environment and behavior*, 10(1), 3-15.
- Wijnhoven, F. (1998). Knowledge logistics in business contexts: analyzing and diagnosing knowledge sharing by logistics concepts. *Knowledge and Process Management*, 5(3), 143-157.
- Wimmer, F. (1992), "Environmentally conscious consumer behavior", *Vahlen's Big Marketing Dictionary*, Vahlen, Munich, pp. 1167-1169
- Wimmer, F. (1992). Umweltbewußtes Verbraucherverhalten. *Vahlens großes Marketinglexikon*, 1167-1169.
- Wood, R. E., Goodman, J. S., Beckmann, N., & Cook, A. (2008). Mediation testing in management research a review and proposals. *Organizational Research Methods*, 11(2), 270-295.
- Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of Management Review*, 18, 293–321.
- Xing, Y., & Starik, M. (2017). Taoist leadership and employee green behaviour: A cultural and philosophical microfoundation of sustainability. *Journal of Organizational Behavior*, 38(9), 1302-1319.

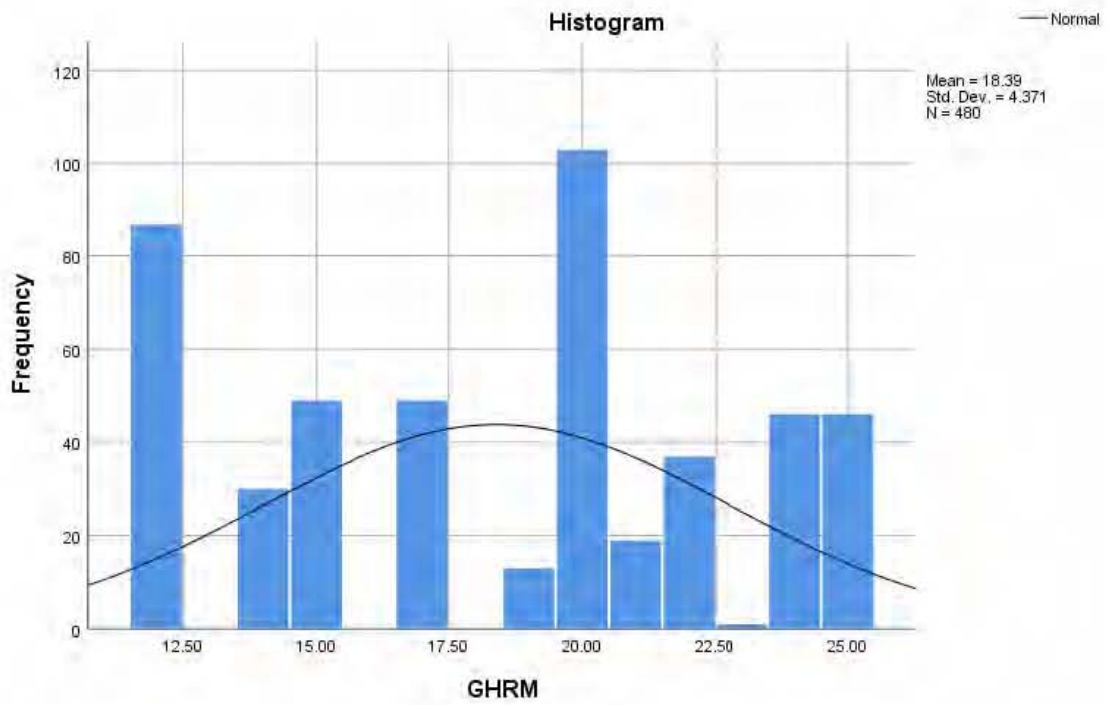
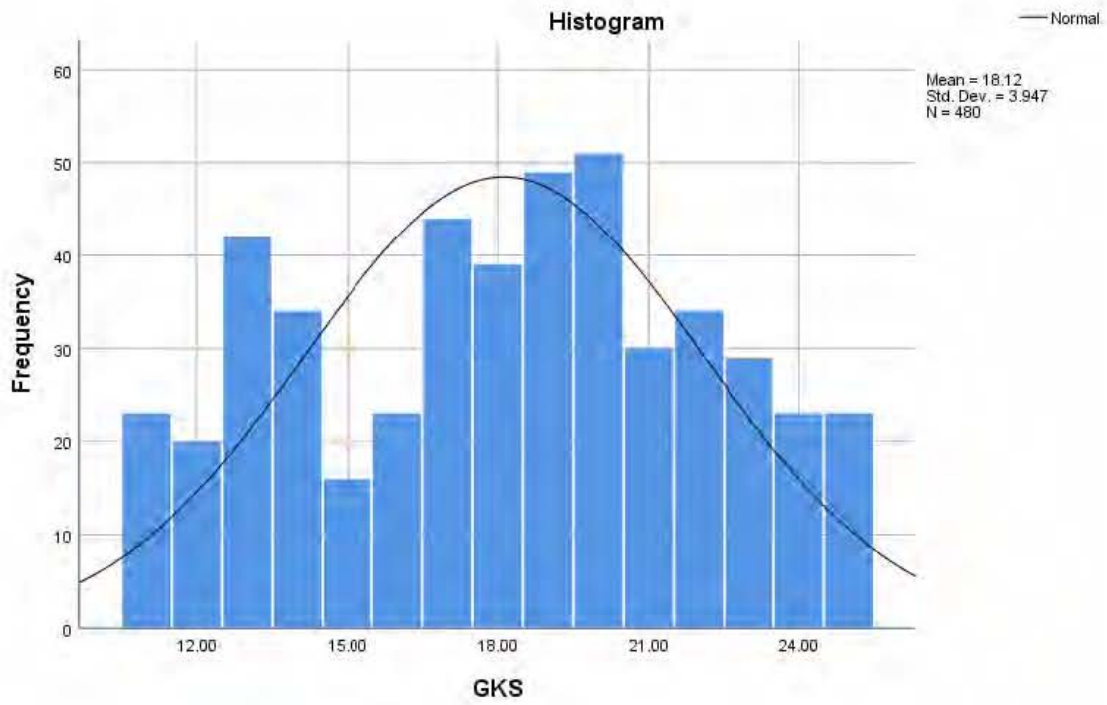
- Yafi, E., Tehseen, S., & Haider, S. A. (2021). Impact of green training on environmental performance through mediating role of competencies and motivation. *Sustainability, 13*(10), 5624.
- Ye, Q., Wang, D., & Guo, W. (2019). Inclusive leadership and team innovation: The role of team voice and performance pressure. *European Management Journal, 37*(4), 468-480.
- Yli-Renko, H., Autio, E., & Sapienza, H. J. (2001). Social capital, knowledge acquisition, and knowledge exploitation in young technology-based firms. *Strategic management journal, 22*(6-7), 587-613.
- Yong, J. Y., Yusliza, M. Y., Jabbour, C. J. C., & Ahmad, N. H. (2020). Exploratory cases on the interplay between green human resource management and advanced green manufacturing in light of the Ability-Motivation-Opportunity theory. *Journal of Management Development, 39*(1), 31-49.
- Yong, J. Y., Yusliza, M. Y., Ramayah, T., & Fawehinmi, O. (2019). Nexus between green intellectual capital and green human resource management. *Journal of cleaner production, 215*, 364-374.
- Yong, J. Y., Yusliza, M. Y., Ramayah, T., Chiappetta Jabbour, C. J., Sehnem, S., & Mani, V. (2020). Pathways towards sustainability in manufacturing organizations: Empirical evidence on the role of green human resource management. *Business Strategy and the Environment, 29*(1), 212-228.
- Yu, C., & Frenkel, S. J. (2013). Explaining task performance and creativity from perceived organizational support theory: Which mechanisms are more important?. *Journal of Organizational Behavior, 34*(8), 1165-1181.

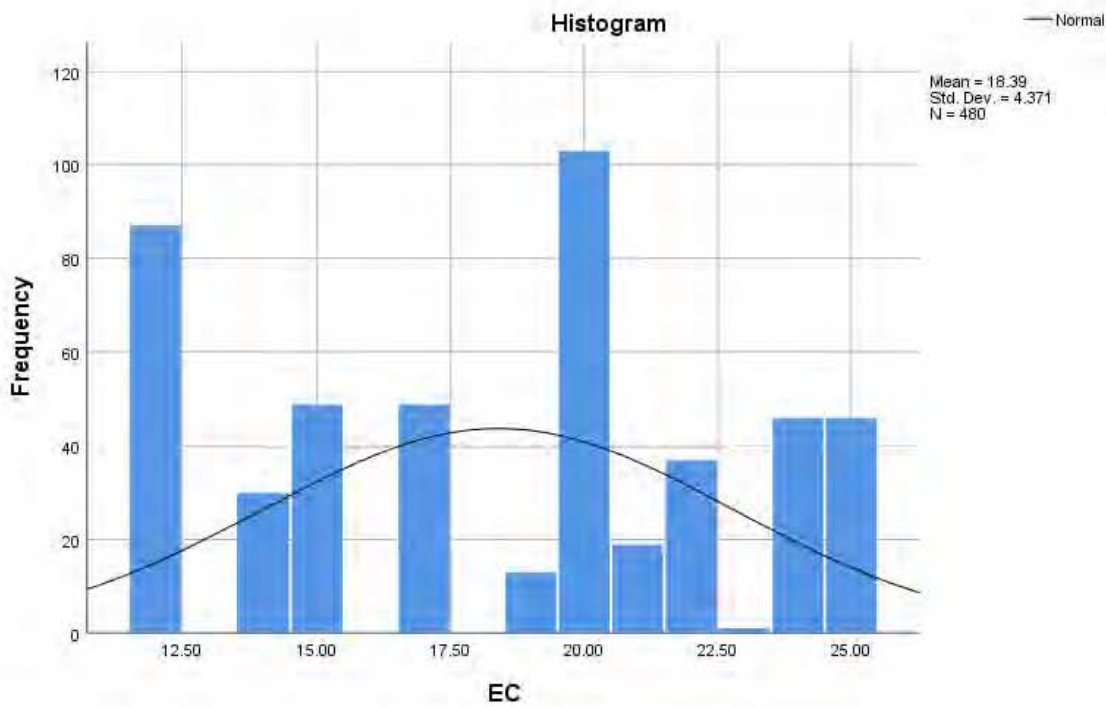
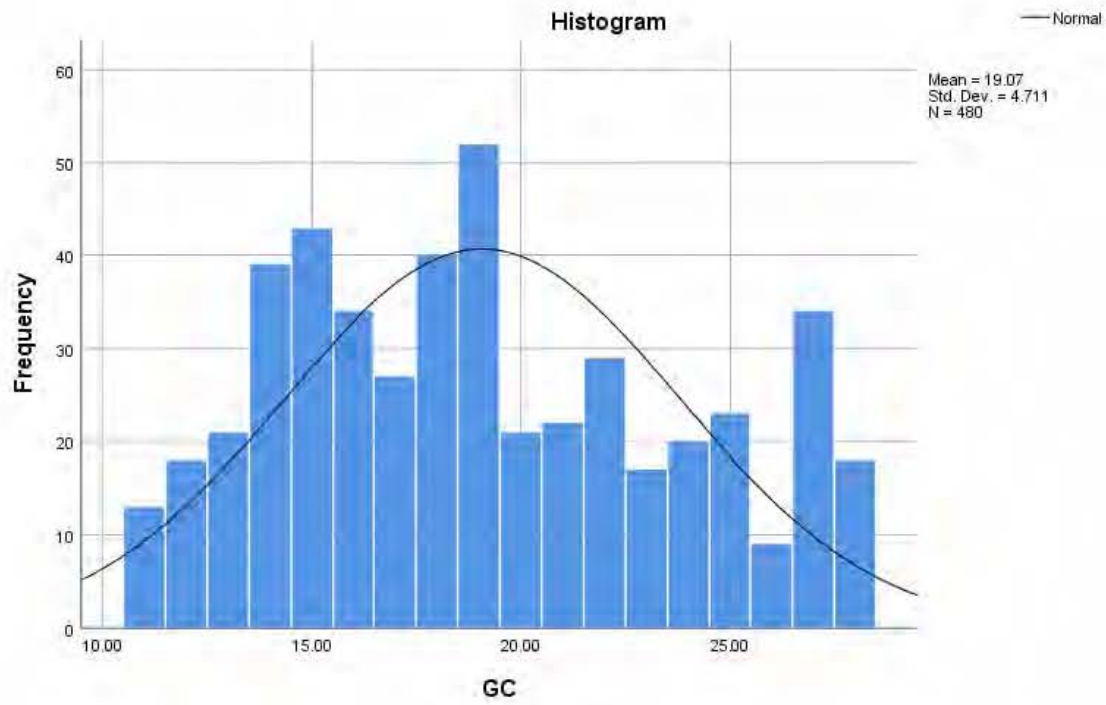
- Yucedag, C., Kaya, L. G., & Cetin, M. (2018). Identifying and assessing environmental awareness of hotel and restaurant employees' attitudes in the Amasra District of Bartin. *Environmental Monitoring and Assessment, 190*, 1-8.
- Yukl, G. A. (1981). Leadership in organizations. *Englewood Cliffs, NJ: Prentice-Hall*
- Yukl, G., & Van Fleet, D. D. (1992). Theory and research on leadership in organizations.
- Zailani, S., Govindan, K., Iranmanesh, M., Shaharudin, M. R., & Chong, Y. S. (2015). Green innovation adoption in automotive supply chain: the Malaysian case. *Journal of Cleaner Production, 108*, 1115-1122.
- Zaim, H., Muhammed, S., & Tarim, M. (2019). Relationship between knowledge management processes and performance: critical role of knowledge utilization in organizations. *Knowledge Management Research & Practice, 17*(1), 24-38.
- Zameer, H., Wang, Y., & Yasmeen, H. (2020). Reinforcing green competitive advantage through green production, creativity and green brand image: implications for cleaner production in China. *Journal of cleaner production, 247*, 119119.
- Zhang, B. Y., & Li, J. (2019). Design for environmental protection: measuring the appeal factors of green product for consumers. *Ekoloji, 28*(107), 1699-1707.
- Zelezny, L. C., & Schultz, P. W. (2000). Psychology of promoting environmentalism: Promoting environmentalism. *Journal of social issues, 56*(3), 365-371.
- Zibarras, L. D., & Coan, P. (2015). HRM practices used to promote pro-environmental behavior: a UK survey. *The International Journal of Human Resource Management, 26*(16), 2121-2142.

Zimmer, M. R., Stafford, T. F., & Stafford, M. R. (1994). Green issues: dimensions of environmental concern. *Journal of business research*, 30(1), 63-74.

Zoogah, D. B. (2011). The dynamics of Green HRM behaviors: A cognitive social information processing approach. *German Journal of Human Resource Management*, 25(2), 117-139.

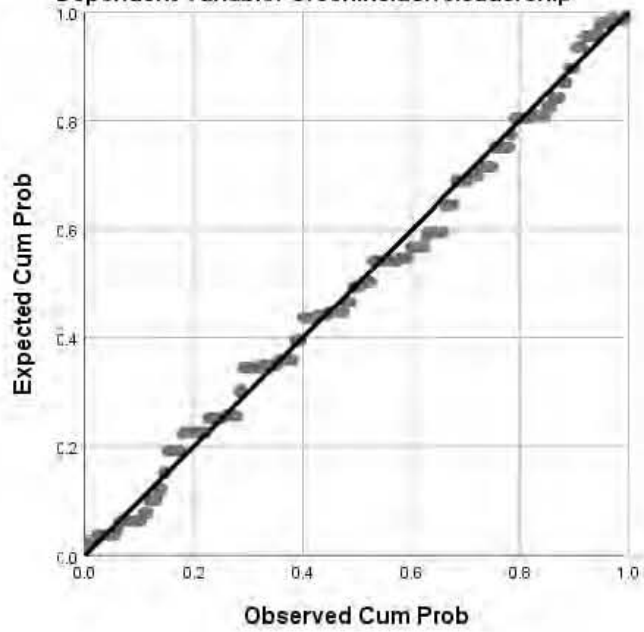






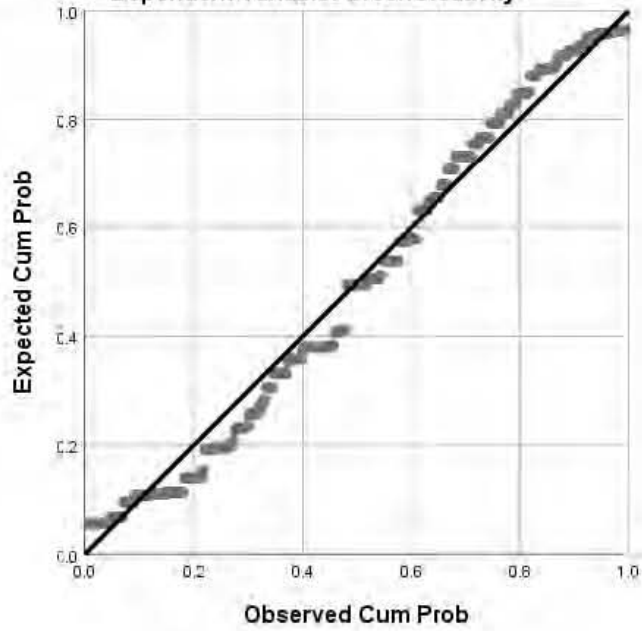
Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Greeninclusiveleadership



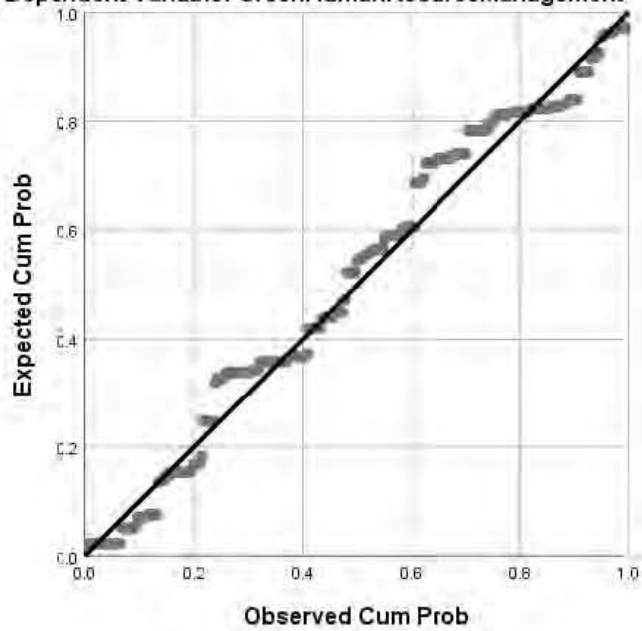
Normal P-P Plot of Regression Standardized Residual

Dependent Variable: GreenCreativity



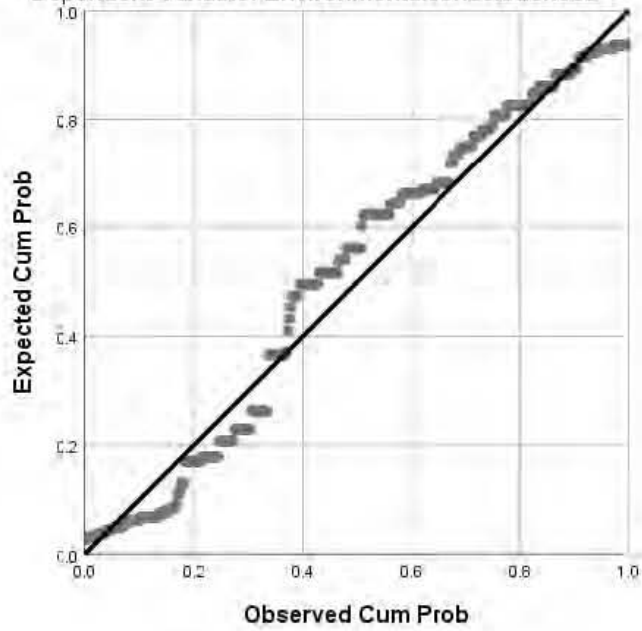
Normal P-P Plot of Regression Standardized Residual

Dependent Variable: GreenHumanRsourceManagement



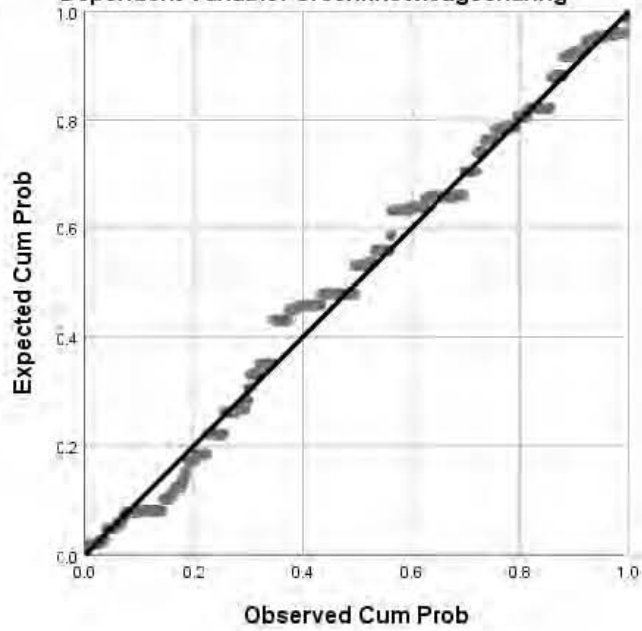
Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Environmentalconsciousness



Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Greenknowledgesharing



Multicollinearity

<i>Variable</i>	<i>Tolerance</i>	<i>VIF</i>
Green Inclusive Leadership	1	1
Green human resource management	1	1.01
Green Creativity	0.992	1.01
Green Knowledge Sharing	0.993	1.01
Environmental Consciousness	0.995	1

CFA calculation for GIL

<i>Goodness of fit</i>	<i>Acceptable level</i>	<i>Calculated measure</i>	<i>Status</i>	<i>Remarks</i>
RMR	< 0.05 shows good fit, But acceptable < 0.08 or equal to 0.08	0.023	Acceptable	
GFI	Less or equal to 1.000	0.968	Acceptable	
CFI	Less or equal to 1.000	0.968	Acceptable	Acceptable
RMSEA	Best fit when = 0.05, acceptable up to < 0.08 or equal to 0.08	0.074	Acceptable	
CMIN/DF	Between 2 to 5	2.568	Acceptable	

CFA calculations for GHRM

<i>Goodness of fit</i>	<i>Acceptable level</i>	<i>Calculated measure</i>	<i>Status</i>	<i>Remarks</i>
RMR	< 0.05 shows good fit, But acceptable < 0.08 or equal to 0.08	0.041	Acceptable	
GFI	Less or equal to 1.000	0.926	Acceptable	Acceptable
CFI	Less or equal to 1.000	0.98	Acceptable	
RMSEA	Best fit when = 0.05, acceptable up to < 0.08 or equal to 0.08	0.08	Acceptable	
CMIN/DF	Between 2 to 5	2.649	Acceptable	

CFA calculation for GC

<i>Goodness of fit</i>	<i>Acceptable level</i>	<i>Calculated measure</i>	<i>Status</i>	<i>Remarks</i>
RMR	< 0.05 shows good fit, But acceptable < 0.08 or equal to 0.08	0.91	Not acceptable	
GFI	Less or equal to 1.000	0.885	Not acceptable	
CFI	Less or equal to 1.000	0.987	Not acceptable	Not acceptable
RMSEA	Best fit when = 0.05, acceptable up to < 0.08 or equal to 0.08	0.272	Not acceptable	
CMIN/DF	Between 2 to 5	1.34	Not acceptable	

Revised CFA calculations for GC

<i>Goodness of fit</i>	<i>Acceptable level</i>	<i>Calculated measure</i>	<i>Status</i>	<i>Remarks</i>
RMR	< 0.05 shows good fit, But acceptable < 0.08 or equal to 0.08	0.012	Acceptable	
GFI	Less or equal to 1.000	0.992	Acceptable	
CFI	Less or equal to 1.000	0.996	Acceptable	Acceptable
RMSEA	Best fit when = 0.05, acceptable up to < 0.08 or equal to 0.08	0.066	Acceptable	
CMIN/DF	Between 2 to 5	2.832	Acceptable	

CFA calculations for GKS

<i>Goodness of fit</i>	<i>Acceptable level</i>	<i>Calculated measure</i>	<i>Status</i>	<i>Remarks</i>
RMR	< 0.05 shows good fit, But acceptable < 0.08 or equal to 0.08	0.009	Acceptable	
GFI	Less or equal to 1.000	0.997	Acceptable	
CFI	Less or equal to 1.000	0.999	Acceptable	Acceptable
RMSEA	Best fit when = 0.05, acceptable up to < 0.08 or equal to 0.08	0.077	Acceptable	
CMIN/DF	Between 2 to 5	3.105	Acceptable	

CFA calculations for EC

<i>Goodness of fit</i>	<i>Acceptable level</i>	<i>Calculated measure</i>	<i>Status</i>	<i>Remarks</i>
RMR	< 0.05 shows good fit, But acceptable < 0.08 or equal to 0.08	0.029	Acceptable	
GFI	Less or equal to 1.000	0.921	Acceptable	
CFI	Less or equal to 1.000	0.903	Acceptable	Not Acceptable
RMSEA	Best fit when = 0.05, acceptable up to < 0.08 or equal to 0.08	0.208	Not acceptable	
CMIN/DF	Between 2 to 5	3.11	Acceptable	

Revised CFA calculations for EC

<i>Goodness of fit</i>	<i>Acceptable level</i>	<i>Calculated measure</i>	<i>Status</i>	<i>Remarks</i>
RMR	< 0.05 shows good fit, But acceptable < 0.08 or equal to 0.08	0.004	Acceptable	
GFI	Less or equal to 1.000	0.999	Acceptable	
CFI	Less or equal to 1.000	1	Acceptable	Acceptable
RMSEA	Best fit when = 0.05, acceptable up to < 0.08 or equal to 0.08	0	Acceptable	
CMIN/DF	Between 2 to 5	3.11	Acceptable	

Appendix B



RESEARCH QUESTIONNAIRE

QUAID-I-AZAM UNIVERSITY, ISLAMABAD

SCHOOL OF MANAGEMENT SCIENCES

Dear Participant,

I am a researcher in the field of Management Sciences; my area of specialization is Human Resource Management. As a part of my MPhil thesis, I am conducting research on the impact of green inclusive leadership on employee green creativity and knowledge sharing through GHRM practices

I will be grateful if you help me by filling out the following questionnaire. I assure you that your responses will be kept confidential and will only be used for educational purposes. I appreciate your responses that best reflect your experiences in your job. Your responses will be valuable for my research. I thank you in advance for your time and cooperation.

Regards,

Vaniza Ahmad

Quaid-i- Azam School of Management Sciences,

Quaid-i-Azam University, Islamabad.

SECTION-1

Demographic Information

Gender	Male		Female	
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Age Group	18-25		26-35		36-45		46-50		50- Above	
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Qualification	Bachelor's Degree		Master's Degree		MPhil		Doctorate's Degree	
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Experience years	0-5		6-10		11-15		16-20		21-25		25- Above	
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Income	less than Rs. 15,000		Rs. 35,000 to Rs. 49,000		Rs. 50,000 to Rs. 74,000		Rs. 75,000 to Rs. 99,000		100,000 and Above	
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SECTION-2

- ❖ **To what extent do you agree/disagree with the following statements regarding the behavior of manager/supervisor in your organization? (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree)**

1.	The supervisor is open to hearing new environmental and green ideas	1	2	3	4	5
2.	The supervisor is attentive to new environmental opportunities to improve work process.	1	2	3	4	5
3.	The manager is open to discuss the desired goals and new ways to achieve them.	1	2	3	4	5
4.	The supervisor is always ready to listen to my environmental requests and suggestions.	1	2	3	4	5
5.	The supervisor is accessible for discussing emerging environmental problems.	1	2	3	4	5
6.	The manager is available for consultation on problems.	1	2	3	4	5
7.	The manager is an ongoing 'presence' in this team-someone who is readily available.	1	2	3	4	5
8.	The manager is available for professional questions I would like to confirm with him/her.	1	2	3	4	5
9.	The manager is accessible for discussing emerging problems.	1	2	3	4	5

- ❖ **To what extent do you agree/disagree with the following statements regarding the HR practices in your organization? (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree)**

10.	In my organization, job description specification includes environmental concerns.	1	2	3	4	5
11.	Environmental performance of the company attracts highly qualified employees.	1	2	3	4	5
12.	My organization selects applicants who are sufficiently aware of greening to fill job vacancies.	1	2	3	4	5
13.	Organization's recruitment messages include environmental behavior/commitment criteria.	1	2	3	4	5
14.	Jobs positions are designed to focus exclusively on environmental management aspects of the organizations.	1	2	3	4	5
15.	My organization provides environmental training to the organizational members to increase environmental awareness.	1	2	3	4	5
16.	My organization takes into account the needs of environmental issues when training requirement is analyzed.	1	2	3	4	5
17.	The organization follows induction programs that emphasize environmental issues concerns.	1	2	3	4	5

18.	Environmental training is a priority when compared to other types of company training.	1	2	3	4	5
19.	All training materials are available online for employee to reduce paper cost.	1	2	3	4	5
20.	My organization links suggestion schemes into reward system by Introducing rewards for innovative environmental initiative/performance.	1	2	3	4	5
21.	The company offers a non-monetary and monetary rewards based on the environmental achievements (sabbatical, leave, gifts, bonuses, cash, premiums, promotion).	1	2	3	4	5
22.	Environmental performance is recognized publicly (awards, dinner, and publicity) in my organization.	1	2	3	4	5
23.	Employees know their specific green targets, goals and responsibilities.	1	2	3	4	5
24.	Environmental behavior/targets and Contributions to environmental management are assessed and include in Performance indicators/appraisal and recorded.	1	2	3	4	5
25.	Roles of manages in achieving green outcomes included in appraisals.	1	2	3	4	5
26.	The organization provides regular feedback to the employees or teams to achieve environmental goals or improve their environmental performance.	1	2	3	4	5
27.	The company incorporates environmental management objectives and targets with the performance evaluation system of the organization.	1	2	3	4	5

❖ **To what extent do you agree/disagree with the following statements regarding your behavior in your organization? (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree)**

28.	I suggest new ways to achieve the environmental goals of my organization.	1	2	3	4	5
29.	I propose new green (ie, environmentally-oriented) ideas to improve the environmental performance of my organization.	1	2	3	4	5
30.	I promote and champion new green ideas (ie, environmentally-oriented) to others at work.	1	2	3	4	5
31.	I rethink and revise green (ie, environmentally-oriented) ideas at work.	1	2	3	4	5
32.	I find creative solutions to environmental problems at work.	1	2	3	4	5
33.	I make adequate plans for the implementation of new green ideas	1	2	3	4	5

❖ **To what extent do you agree/disagree that the following statements are true? (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree)**

34.	I enjoy sharing environment-friendly knowledge with colleagues.	1	2	3	4	5
35.	I always share green knowledge obtained from newspapers, magazines, journals, television and other sources.	1	2	3	4	5
36.	In my organization, people share expertise from work experience with each other.	1	2	3	4	5
37.	Sharing my knowledge with colleagues is pleasurable.	1	2	3	4	5
38.	I believe that knowledge sharing can benefit all parties involved.	1	2	3	4	5

- ❖ **To what extent do you agree/disagree that the following statements regarding yourself are true?
(1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree)**

39.	I am pleased to purchase green products.	1	2	3	4	5
40.	I believe consuming green product is really good for environment.	1	2	3	4	5
41.	Overall feeling I get about green products is always satisfying.	1	2	3	4	5
42.	Overall feeling I get about green products put me in environmentally safe mode.	1	2	3	4	5
43.	I feel good about green products.	1	2	3	4	5

Dear Participant, Thank you for your valuable responses.



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ABSTRACT

This research highlights the importance of green inclusive leadership in IT industry of Pakistan. This research aims to investigate what is the effect of green inclusive leadership on employee conduct such as green creativity and green knowledge sharing using green human resource management as a bridge between them and environmental consciousness as a moderator. The nature of the research is quantitative. The data was collected from various software houses in twin cities. 480 questionnaires utilizable questionnaires were collected. The data was analyzed using SPSS25 and SmartPLS4. SEM was done in SmartPLS and moderation was done in SPSS using the Hayes process. The findings supported the hypotheses. It was a cross-sectional study. The theoretical and practical implications, limitations and imputations for future research have been discussed in this research. According to the findings Green Inclusive Leadership is positively related to Green Creativity and Green Knowledge Sharing. Green Human Resource Management plays an important role in bridging the relationship between Green Inclusive Leadership, Green Creativity and Green Knowledge Sharing. Environmental Consciousness catalyzes the above-mentioned relationship.

Keywords: *Green Inclusive Leadership, Green Human Resource Management, Green Creativity, Green Knowledge Sharing, Environmental Consciousness, Social Exchange Theory*