Environmental Sustainability Through Green Human Resource Management Practices: An Analyses Of Industries Of Lahore, Pakistan

Mohi ud Din[1] , Aqeel Ahmad[2]

[1]*Faculty of Management Sciences, UCP Business School, University of Central Punjab, Lahore.*
L1F20PHDM0005@ucp.edu.pk
[2]*Faculty of Management Sciences, UCP Business School, University of Central Punjab, Lahore.*
aqeel.a@ucp.edu.pk

Abstract

This study aims at exploring the role of green HR practices as a contributor to the solution of environmental degradation in developing economies like Pakistan through developing pro-environmental behavior in employees. The study has been conducted in the industrial sector of Lahore Pakistan. Data was collected through a survey questionnaire from 273 respondents that comprise HR managers, Leaders, and other employees. The analyses were performed using SmartPLS 4.0. The reliability statistics and structural equation modeling were applied. The findings suggest that green HR practices positively and significantly impact environmental sustainability. It further reveals that employees' pro-environmental behavior partially mediates the relationship between green HR practices and environmental sustainability. Hence, green HR practices along with employees' pro-environmental behavior have the strongest impact on environmental sustainability. This is a unique study in the context of Pakistan that explores the importance of green HR practices to achieve the goals of environmental sustainability by developing environmentally friendly behavior among employees of the organization. This study would add the body of knowledge to the literature on sustainability that would help organizations of developing economies particularly Lahore, Pakistan which is under extreme environmental threat nowadays to reduce environmental degradation issues to a great extent. Future studies may explore different dimensions of the concept with the different mediator(s) and moderator(s) in different geographical context.

Keywords: Green HR practices, Employees' pro-environmental behavior, environmental sustainability.

Introduction

The phrase 'going green' is getting popular in this modern era. It refers to adopting eco-friendly activities to save the environment form pollution or other environmental harms. Furthermore, it means reducing the use of carbon. The use of carbon has enormously increased over the last few decades because of rapid industrialization and a boom in technological progress. It has adversely affected the world environment. That is why 'going green' has taken attention in the world(Gazzola et al., 2019; Hermawan et al., 2018). Pakistan is one of the countries in Asia where environmental issues have become a life threat to its inhabitants (Waseem et al., 2014). This can be assessed by the fact that one of its cities, Lahore, has been the top most polluted city in Asia in 2022 ("World's Most Polluted Cities in 2022 - PM2.5 Ranking | AirVisual," 2022). According to the Environment Protection

Department of Punjab (Pakistan), the rapid increase in pollution in the city area is because of rapid industrialization and urbanization (PunjabGovt., 2020). A clean and pollution-free environment has become the need of the hour to save the lives of all livings on the earth on one hand and to keep our future generation healthy and strong on the other hand. That's why, laws have been made in different countries around the world for taking steps to save the environment, and the business organizations taking their social responsibility have thought it fit to shift their production to eco-friendly products to save the environment on one hand and to gain competitive advantage on the other hand(Zhang & Du, 2020). Organizations around the globe have a clear focus on sustaining the environment through CSR activities and eco-friendly activities. Keeping in view the changing environmental conditions of the world, United Nations has issued environmental sustainability goals to combat this issue, particularly in developing countries (Zhang et al., 2021). In this scenario, it lays emphasis on the organizations to take their responsibility to combat this issue. For this, green HR practices can help to improve the situation. The green HR practices commonly called environment-saving activities if used properly may develop pro-environmental behaviors among employees to achieve environmental sustainability goals (Jerónimo et al., 2020). This situation calls for the serious attention of the authorities, scholars and practitioners to provide a solid solution of this issue through their valuable contributions to the research work to achieve the environmental sustainability goals. Hence, this study will work as a tool to uncover the hidden secret of applying green HR practices for developing employees' green behavior to achieve environmental sustainability goals.

Industrial sector of Pakistan and green HRM
Pakistan's industry has been tremendously increased since it carved out on the map of the world in 1947. Sixty five percent of its industry is located in Punjab, a province of Pakistan, that include textile, tannery, chemical and engineering, transportation and iron and steel etc. (GOP, 2021). The industrial sector of Pakistan is very important for its economic growth and stability. It contributed 18.8% to GDP during FY 2021(Statista, 2022) and provided 25.79% employment during FY 2020 (WorldBank, January 2023) to the people of Pakistan. Major industries of Pakistan include textile, chemicals, Leather and tanneries, automobiles, sports and surgical instruments. Pakistan's economy comprises of three sectors i.e. agriculture, industry and service sector. The second largest sector is industry. It is considered the backbone of Pakistan's economy. With the increase in industry, industrial waste i.e. dust, smoke, fumes and toxic gas emission increase rapidly and pollute environment. According to Environment Protection Department of Govt. of Pakistan, rapid industrialization causes a lot to squalor environment. Therefore, some laws have been made by the Govt. of Punjab to protect the environment from harmful activities of the organizations that have to be strictly followed by the industrial units and non-compliance of these laws will lead to penalty or fine to the concerned organizations (Punjab.Govt, 2017; PunjabGovt, 2020). Ban on polythene bags and launch of Punjab Green Development Program were the initiatives of Punjab Govt. in this context (Punjab.Govt., 2021; PunjabGovt., 2002). Hence, the industrial organizations have started partaking to the green activities that would ultimately lead this region to environmental sustainability.

Purpose and significance of this study
This study will serve its purpose in many ways and it will be significant for several reasons. Firstly, the findings of this study will be helpful to the HR practitioners to achieve the environment sustainability goals of United Nations 2015. Secondly, this study will provide a

solution to the issue of environmental degradation caused by industries in developing nations like Pakistan through the best use of green HR practices. Thirdly, this study will be significant for identifying the mediating role of employees' pro-environmental behavior towards environmental sustainability. Fourthly, this study would guide industrialists the importance of green HR practices for sustainable development.

Literature Review

Traditional HR Practices

Ulrich and Dulebohn (2015) claim that HRM started transforming from simple 'administrative maintenance function' to 'core business function' at the start of 1980s because HR professionals began to experience this shift for improved efficiency requirement of the business organizations. They further add that there are different factors that caused this transformation i.e. "globalization and international competition, de-regulation, employment legislation, decreased unionization, demographic changes, and the shift from manufacturing to a knowledge and service-based economy". The reason behind this transformation was the use of new emerged term i.e. human resource management (HRM) or Human Resource (HR). Rani and Mishra (2014) defines HRM as "a set of different but interconnected activities, functions, and process that are aimed at attracting, developing, and maintaining a firm's human resources". On the other hand, HR practices are termed as the processes and techniques used by HR professionals to improve business results and performance. These include hiring, training, compensation, performance appraisal, and career development (Jayne & Dipboye, 2004; Ramlall, 2003). Breaugh (2013) defines hiring as process of choosing new employees or potential candidates by an employer out of the one who applied for a specific post. Wexley (1984) defines employee training as "planned effort by an

Fifthly, this study would prove itself a successful move from traditional HRM practices to green HRM practices in attaining environmental sustainability. Sixthly, this study would highlight the role of industries towards environmental sustainability. Finally, the results of this study would be generalizable to the developing nations having the same economic and geographical background.

organization to facilitate the learning of job-related behavior on the part of its employees". Gerhart (2008) defines compensation as the sum of fixed and variable pay to influence employees' current motivational state. Aggarwal et al. (2013) defines performance appraisal as "a technique that involves evaluation input from multiple levels within the firm as well as external sources".

Green HR practices and Environmental Sustainability

As the boost in the industrialization took place, it gave rise to the pollutants in the environment around the globe. Air pollution, water pollution and land pollution increased to a dangerous level. This raised a serious concern to the authorities to take action for saving environment for a healthy future (Magsi, 2014; Rahman & Alam, 2022). As a result, United Nations took this matter seriously and added environmental sustainability among one of its sustainability goals of 2030 (Arora & Mishra, 2019). Now, the question arises, who can play a role in sustaining environment? As discussed earlier, industrialization has caused the environmental degradation through discharging harmful pollutants in open environment, the main responsibility lies on the shoulders of authorities of the industries to take measures for this. In this regard, HR professionals can play their part by using green HR practices (Rimanoczy & Pearson, 2010). Some of these practices include green hiring, green training, green reward and green empowerment etc. Green hiring refers to as the activities or process of adding to your current

employees with paperless environment that helps to save environment by avoiding the cutting of trees that use in paper making process (Darendeli et al., 2022). Green training refers to as teaching the skills to the employees through which they can boost the greening in the organization (Xie & Zhu, 2020). Green reward refers to as the monetary or non-monetary benefits awarded to employees associated on compliance of green activities in the organization e.g. reducing the waste and focus on recycling (Massoud et al., 2008). Green empowerment refers to as the activities regarding technical, financial and motivational support to the employees by the authorities for sustainable development (Tariq et al., 2014). As green hiring, green training, green reward and green empowerment practices are performed by HR professionals, they come under the umbrella of green Human Resource Management (GHRM). GHRM deals with promoting the sustainability of environment (Ramzan et al., 2020). The notion going green is becoming very attractive in the business world because it helps the organizations to reduce cost and increase revenue. It is also a source of competitive advantage in the competitive world. Green Human Resource Management (GHRM) has also got due attention since last two decades among the scholars and business organizations due to natural calamities, pandemics and our own environment destructive activities (Ali Rahoo & Ali Khan, 2020). As in the case of Lahore Pakistan, the city has been constantly top listed air pollutant country in the world. It faced the severe issue of smog that made human being to inhale fresh air. Owing to this issue, the Govt. of Pakistan took some strict steps and put an emphasis on the organizations to do their best to keep the environment clean and healthy. Now, every business community around the world has realized the importance of going green and its duty to keep the environment clean and healthy. According to Chaudhary (2020), GHRM can play a vital role in every type of business to overcome

environmental issues by using green HR practices by giving their employees eco-friendly awareness, green training, green hiring and green performance management and compensation. According to Ojo et al. (2020) and as per the findings of Jehan et al. (2020), green HR practices are positively associated to environmental sustainability.

Employees' pro-environmental Behavior

According to Afsar and Umrani (2020), employees' pro-environmental behavior of employees refers to the environment protecting behavior of employees based on pro-social nature and discretionary nature. Pro-social behavior includes those activities of employees that are concerned with individual and organizational welfare whereas discretionary behavior includes those activities that are not duty-bound on the employees rather employees adopt these activities discretionary. According to Ahmad et al. (2021), behavior matters a lot to achieve sustainability goals. In this context, HR professional can develop a required behavior among employees through training, reward and empowerment (Malik & Garg, 2020; Zhang et al., 2019). When employees tend to show their behavior towards environment positively, they are surely contributing to save environment from degradation (Iqbal et al., 2018; Kong et al., 2021). This shows that the relationship of employee behavior with the environment sustainability links green HR practices with it (Cop et al., 2020). Hence, it mediates the relationship of green HR practices and environmental sustainability.

Environmental Sustainability

According to Hueting (2010), "a situation in which natural environmental functions are safeguarded for future generations". In common words, environment sustainability may be defined as saving environment from harmful activities such as emitting carbon dioxide in open air, discharging harmful chemicals in the water

and causing to blow up the temperature of earth. With every passing day, technological advancements, urbanization and industrialization have shattered the dreams of sustainable human growth. Rapid industrialization with minimum efforts to save environment has destroyed the environment (Parveen et al., 2019). Therefore, the environment is getting worse than worse because little efforts have been done so far to secure it. Environment degradation is not only the issue of developing nations but developed nations are also facing this serious issue (Solarin, 2018). The developed nations have financial and non-financial resources to tackle this issue but the developing nations do not have these resources. That's why environmental condition is worse in developing countries like Pakistan. Hence, they have to focus on their human resource to develop pro-environmental behavior among employees to reduce the side effects of environment polluting activities rather than investing on imported machinery and equipment. According to Bag et al. (2021), human resource is a key resource in developing economies to achieve sustainability in industry. In this context, green HR practices can play a significant role in developing employees' pro-environmental behavior and to sustain environment. As per the findings of Gilal et al.

Research Model

The research model comprises one independent variable i.e. green HR practices the practices include green recruitment, green training, green reward and green empowerment, one dependent variable i.e. environmental sustainability and one mediating variable i.e. employees' pro-

Research Framework

(2019) , environmental sustainability depends significantly and positively on green HR practices.

The Theoretical Background for Modelling

AMO (Ability, Motivation, Opportunity) theory by Appelbaum et al. (2000) is underpinning theory of this study. According to this theory, ability, motivation and opportunity can influence employee behavior. Based on this notion, environment sustainable HR practices commonly called as green HR practices can be used to tend employees towards developing eco-friendly behavior. Many past studies also provide the same theoretical basis as is used for the modelling of this research work (Ansari et al., 2021; Gill et al., 2021; Naz et al., 2022; Nisar et al., 2021; Saeed et al., 2019). According to these studies, green HR practices develop environmental behavior among the employees of the organizations that subsequently helps to maintain environmental sustainability. This study aims at testing the said relationship in the industrial sector of Pakistan to find if there exists a positive relationship between green HR practices and environmental sustainability through employees' pro-environmental behavior.

environmental behavior. The model delineates mediating pro-environmental behavior of employees between green HR practices and environmental sustainability. The researcher's purpose is to identify the impact of green HR practices on environmental sustainability through creating environmental behavior among employees. Hence, the proposed model is as under

Proposed Research Framework
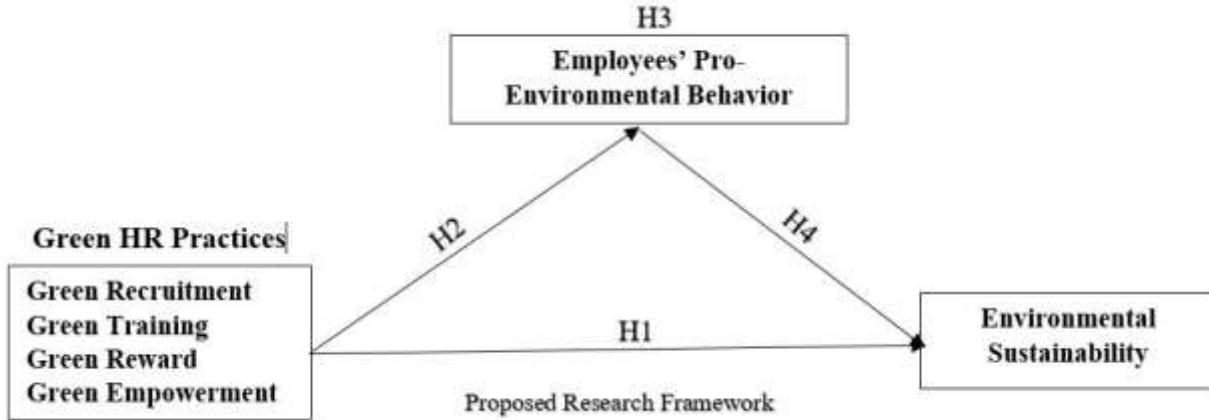
Reliability Statistics

The following table no.1 shows the reliability statistics. It shows the results of Cronbach alpha for GHRP=0.812, EPB=0.823 and ES=0.833. The overall value of Cronbach alpha is 0.887. The minimum acceptable value of Cronbach alpha is 0.6 (Sekaran & Bougie, 2016). Moreover, it shows that the AVE value of EPB, ES and GHRP is greater than .5 that also falls in the acceptable region. Hence, all the values meet the criteria for reliability of the instrument.

Table No. 1

	Cronbach's alpha	rho_A	Composite reliability	Average variance extracted (AVE)
EPB	0.823	0.844	0.872	0.537
ES	0.833	0.836	0.882	0.600
GHRP	0.812	0.812	0.877	0.640

Data Collection and Analysis

Instrument/Data Collection Tool

The survey questionnaire has been used for this study to collect data. It has been drawn from past researches (Ren et al., 2018; Singh et al., 2020; Tosti-Kharas et al., 2017). The questionnaire comprises of two parts i.e. demographics and items for variables of the study. It used five points Likert scale ranging from strongly disagree to strongly agree. There were total 39 items in the questionnaire to operationalize the variables, fifteen for green HR practices, seventeen for environmental sustainability and seven for employees' pro-environmental behavior which were reduced to fourteen items after applying factor analysis.

Participants

The target population of this study is the industries of Lahore, Pakistan and the unit of analysis is the individuals from the industries including HR manager, leader and other employees. The researcher distributed questionnaires personally to the 300 respondents using purposive sampling technique as to get maximum corrected response of 273 respondents i.e. sample size. The researcher took an appointment from the respondents' HR department of different organizations of Lahore before visiting the industry. On the designated

day, the researcher visited the organizations, met the respondents personally, distributed the questionnaires to the actual respondents, explained wherever they found difficulty in responding to the statements of questionnaire and extreme care was taken in the whole process. This was all done to make the data collection error-free.

Descriptive Analysis

The respondents were 11.4% HR managers, 28.6% leaders and 60% other employees. There were 60% respondents from manufacturing concerns and 40% were from service sector. More than 55% respondents out of which 80% were male and 20 % were female had more than four years of experience. This gives prima facie evidence that most of the respondents were experienced and well aware of the green HR practices and environmental knowledge. Furthermore, the researcher explained to the respondents the concept of green HR practices where needed.

Data analysis tool

The researcher used latest version of SmartPLS i.e. 4.0 to run the analysis. PLS-SEM was used for regression analysis and mediation analyses. Factor analysis was used to reduce the item scale and Cronbach alpha was run for reliability test.

Results

The following table no. 2 shows the results of path analysis. The direct and indirect relationships among the variables have been shown. Mediation analysis was performed to assess the mediating role of employees' pro-

environmental behavior (EPB) on the linkage between green HR practices (GHRP) and environmental sustainability (ES). The results reveal that direct effect of GHRP on ES is positive and significant (β=.244, p<.01) that leads to accept H1. These results are in line with the past studies (Saeed et al., 2019; Yong et al., 2020). The results also show positive and significant impact of GHRP on EPB (β=.982, p<.01) and EPB on ES (β=.753, p<.01) respectively that lead to accept H2 and H4. Past studies are in line with the acceptance of H2 and H4 (Ansari et al., 2021; Chaudhary, 2020; Robertson & Barling, 2013). When a mediator i.e. employees' pro-environmental behavior is included between GHRP and ES the results show positive and significant relationship of GHRP on ES through EPB (β=.739, p<.01). Here, the direct effect of GHRP on ES is less than the indirect effect when EPB is included between GHRP and ES. When EPB was included, it reduced the direct effect. Therefore, partial mediation exists between GHRP and ES. Hence, it leads to accept H3 of the study. Past researchers prove that the results of this study are in line with their findings (Elshaer et al., 2021; Nisar et al., 2021).

R square value shows to what extent dependent variable explains independent variable. Here, R square for EPB is .964 that means GHRP causes variance in EPB to 96.4% that is strong explanation by the variable whereas the R square value of ES is .988 that means GHRP causes variance in ES through EPB to 98.8% that is also strong explanation. Hence, this proves that GHRP strongly improves environmental sustainability through developing EPB among employees of the industrial organizations.

Table: 2

Total Effect			Direct Effect GHRP>ES		Indirect effect of GHRP on ES		
	Coefficient	P value	Coefficient	P value		Coefficient	P value
EPB -> ES	0.753	.000	0.753	.000	**GHRP -> EPB -> ES**	0.739	.000
GHRP -> EPB	0.982	.000	0.982	.000			

GHRP -> ES	0.983	.000	0.244	.000			
	R-square						
EPB	0.964						
ES	0.988						

Conclusion

The objective of the study was to empirically test the impact of green HR practices on environmental sustainability with the mediating role of employees' pro-environmental behavior in the industrial sector of Pakistan. The findings of the study made it possible to fulfill this objective. The findings suggest that green HR practices have positive and significant impact on environmental sustainability. Moreover, GHRP has positive and significant impact on EPB and EPB has positive and significant impact on ES. It means that HR professionals can enhance EPB and level of ES by focusing GHRP. The findings further explore the mediating role of EPB and confirms its partial mediation. The total effect of GHRP on ES with the existence of EPB is β=.983 that suggests that GHRP and EPB collectively can enhance ES to 98%. All hypotheses have been accepted as direct and indirect relationships of independent, dependent and mediating variables are significant and have positive impact. Moreover, the study also claims that green HRM practices impacts environmental sustainability positively and significantly through developing employees' pro-environmental behavior. The findings of the study contributes to the literature of green HR practices and environmental sustainability. This study adds up the role of employees' pro-environmental behavior in achieving sustainability goals of the organizations. Hence, the findings would be helpful to the HR professionals of developing economies like Pakistan to achieve its sustainability goals.

Future Research

As discussed earlier, environment sustainability has become a hot issue these days around the world. Many scholars are working on this construct. This study explores some dimensions of this issue. Firstly, this study uses green hiring, green training, green reward and green empowerment practices. Future studies may explore the effect of other green HR practices in the same context. Secondly, this study uses employees' pro-environmental behavior as a mediator. In future research, other mediator(s) or moderator(s) can be used to explore other dimensions of the study. Thirdly, the sample has been taken from the industries of Lahore only and data has been collected from the employees of only these industries. Future studies may use other cities for data collection. Fourthly, this study is quantitative in nature. Future studies may use qualitative method to explore the same issue. Lastly, this study has been conducted in Pakistan that is a developing nation and data has been collected from one of its cities i.e. Lahore. Future research may focus some other nations having different background and culture.

References

1. Afsar, B., & Umrani, W. A. (2020). Corporate social responsibility and pro-environmental behavior at workplace: The role of moral reflectiveness, coworker advocacy, and environmental commitment. Corporate Social Responsibility Environmental Management, 27(1), 109-125.

2. Aggarwal, A., Thakur, G. S. M. J. I. J. o. E., & Technology, A. (2013). Techniques of performance appraisal-a review. 2(3), 617-621.

3. Ahmad, N., Ullah, Z., Arshad, M. Z., waqas Kamran, H., Scholz, M., Han, H. J. S. P., & Consumption. (2021). Relationship between corporate social responsibility at the micro-level and environmental performance: The mediating role of employee pro-environmental behavior and the moderating role of gender. 27, 1138-1148.

4. Ali Rahoo, L., & Ali Khan, M. (2020). Analysis of green HR practices in information technology industries of Pakistan. Disaster Recovery Bus.Contin, 11(1), 2105-2113. https://www.researchgate.net/publication/342509796

5. Ansari, N. Y., Farrukh, M., Raza, A. J. C. S. R., & Management, E. (2021). Green human resource management and employees pro-environmental behaviours: Examining the underlying mechanism. 28(1), 229-238.

6. Appelbaum, E., Bailey, T., Berg, P., Kalleberg, A. L., & Bailey, T. A. (2000). Manufacturing advantage: Why high-performance work systems pay off. Cornell University Press.

7. Arora, N. K., & Mishra, I. (2019). United Nations Sustainable Development Goals 2030 and environmental sustainability: race against time. In (Vol. 2, pp. 339-342): Springer.

8. Bag, S., Yadav, G., Dhamija, P., & Kataria, K. K. J. J. o. C. P. (2021). Key resources for industry 4.0 adoption and its effect on sustainable production and circular economy: An empirical study. 281, 125233.

9. Breaugh, J. A. (2013). Employee recruitment. Annual review of psychology, 64, 389-416.

10. Chaudhary, R. (2020). Green human resource management and employee green behavior: an empirical analysis. Corporate Social Responsibility Environmental Management, 27(2), 630-641.

11. Cop, S., Alola, U. V., Alola, A. A. J. B. S., & Environment, t. (2020). Perceived behavioral control as a mediator of hotels' green training, environmental commitment, and organizational citizenship behavior: A sustainable environmental practice. 29(8), 3495-3508.

12. Darendeli, A., Law, K. K., & Shen, M. J. R. o. A. S. (2022). Green new hiring. 27(3), 986-1037.

13. Elshaer, I. A., Sobaih, A. E. E., Aliedan, M., & Azazz, A. M. J. S. (2021). The effect of green human resource management on environmental performance in small tourism enterprises: mediating role of pro-environmental behaviors. 13(4), 1956.

14. Gazzola, P., Del Campo, A. G., & Onyango, V. (2019). Going green vs going smart for sustainable development: Quo vadis? Journal of cleaner production, 214, 881-892.

15. Gerhart, B. (2008). Compensation. In The Routledge Companion to Strategic Human Resource Management (pp. 238-258). Routledge.

16. Gilal, F. G., Ashraf, Z., Gilal, N. G., Gilal, R. G., Channa, N. A. J. C. S. R., & Management, E. (2019). Promoting environmental performance through green human resource management practices in higher education institutions: A moderated mediation model. 26(6), 1579-1590.

17. Gill, A., Ahmad, B., & Kazmi, S. (2021). The effect of green human resource management on environmental performance: The mediating role of employee eco-friendly behavior. Management Science Letters, 11(6), 1725-1736.

18. GOP. (2021). Exporters' Competitiveness and resilience to COVID-19 Evidence from Pakistan. International Trade center & UKaid

19. Hermawan, A., Aisyah, I. S., Gunardi, A., & Putri, W. Y. (2018). Going green: Determinants of carbon emission disclosure in manufacturing companies in Indonesia. International Journal of Energy Economics and Policy, 8(1), 55.

20. Hueting, R. (2010). Why environmental sustainability can most probably not be attained with growing production. Journal of Cleaner Production, 18(6), 525-530.

21. Iqbal, Q., Hassan, S. H., Akhtar, S., Khan, S. J. W. J. o. S., Technology, & Development, S. (2018). Employee's green behavior for environmental sustainability: A case of banking sector in Pakistan.

22. Jayne, M. E., & Dipboye, R. L. (2004). Leveraging diversity to improve business performance: Research findings and recommendations for organizations. Human Resource Management

23. 43(4), 409-424. (Published in Cooperation with the School of Business Administration, The University of Michigan in alliance with the Society of Human Resources Management

24. Jehan, Y., Hussain, D., Batool, M., Imran, M., Rasaizadi, A., Askari, M., . . . Hayat, N. J. I. J. o. H. C. i. U. M. (2020). Effect of green human resource management practices on environmental sustainability. 5(2), 153-164.

25. Jerónimo, H. M., Henriques, P. L., Lacerda, T. C. d., da Silva, F. P., & Vieira, P. R. (2020). Going green and sustainable: The influence of green HR practices on the organizational rationale for sustainability. Journal of Business Research, 112(June), 413-421. https://doi.org/10.1016/j.jbusres.2019.11.036

26. Kong, L., Sial, M. S., Ahmad, N., Sehleanu, M., Li, Z., Zia-Ud-Din, M., & Badulescu, D. J. S. (2021). CSR as a potential motivator to shape employees' view towards nature for a sustainable workplace environment. 13(3), 1499.

27. Magsi, H. (2014). Industrialization, environment and pollution. The diplomatic insight, 7, 24-36.

28. Malik, P., & Garg, P. (2020). Learning organization and work engagement: the mediating role of employee resilience. International Journal of Human Resource Management, 31(8), 1071-1094. https://doi.org/10.1080/09585192.2017.1396549

29. Massoud, J. A., Daily, B. F., Bishop, J. W. J. I. J. o. E., Workplace, & Employment. (2008). Reward for environmental performance: Using the Scanlon Plan as catalyst to green organisations. 4(1), 15-31.

30. Naz, S., Jamshed, S., Nisar, Q. A., & Nasir, N. (2022). Green HRM, psychological green climate and pro-environmental behaviors: An efficacious drive towards environmental performance in China. In Key Topics in Health, Nature, and Behavior (pp. 95-110). Springer.

31. Nisar, Q. A., Haider, S., Ali, F., Jamshed, S., Ryu, K., & Gill, S. S. J. J. o. C. P. (2021). Green human resource

management practices and environmental performance in Malaysian green hotels: The role of green intellectual capital and pro-environmental behavior. 311, 127504.

32. Ojo, A. O., Tan, C. N.-L., & Alias, M. (2020). Linking green HRM practices to environmental performance through pro-environment behaviour in the information technology sector. Social Responsibility Journal.

33. Parveen, S., Khan, A. Q., Farooq, S. J. R. o. E., & Studies, D. (2019). The causal nexus of urbanization, industrialization, economic growth and environmental degradation: Evidence from Pakistan. 5(4), 721-730.

34. Punjab.Govt. (2017). Policy on controlling Smog Lahore: Environment Protection Department

35. Punjab.Govt. (2021). BRIEF ON PUNJAB GREEN DEVELOPMENT PROGRAM (PGDP). Lahore: Environment Protection Department

36. PunjabGovt. (2020). DEVELOPMENT BUDGET OF ADP SCHEMES OF EPD PUNJAB Lahore: Environment Protection Department

37. PunjabGovt. (2002). Punjab Polythene Bags Ordinance. Lahore: The Punjab Gazette

38. PunjabGovt. (2020). Industries Commerce and Investment Industries and Commerce Division

39. Rahman, M. M., & Alam, K. (2022). Impact of industrialization and non-renewable energy on environmental pollution in Australia: Do renewable energy and financial development play a mitigating role? Renewable Energy.

40. Ramlall, S. J. (2003). Measuring human resource management's effectiveness in improving performance. People Strategy 26(1), 51.

41. Rani, S., & Mishra, K. (2014). Green HRM: Practices and strategic implementation in the organizations. International Journal on Recent Innovation Trends in Computing Communication2(11), 3633-3639.

42. Ren, S., Tang, G., & E. Jackson, S. (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

43. Rimanoczy, I., & Pearson, T. (2010). Role of HR in the new world of sustainability. Industrial Commercial Training 42(1), 11-17.

44. Robertson, J. L., & Barling, J. (2013). Greening organizations through leaders' influence on employees' pro-environmental behaviors. Journal of organizational behavior, 34(2), 176-194.

45. Saeed, B. B., Afsar, B., Hafeez, S., Khan, I., Tahir, M., Afridi, M. A. J. C. S. R., & Management, E. (2019). Promoting employee's proenvironmental behavior through green human resource management practices. 26(2), 424-438.

46. Sekaran, U., & Bougie, R. (2016). Research methods for business: A skill building approach. john wiley & sons.

47. Singh, S. K., Giudice, M. D., Chierici, R., & Graziano, D. (2020). Green innovation and environmental performance: The role of green transformational leadership and green human resource management. Technological Forecasting and Social Change, 150(October 2019), 119762-119762. https://doi.org/10.1016/j.techfore.2019.119762

48. Solarin, S. A. A.-M., Usama. (2018). Influence of foreign direct investment on

indicators of environmental degradation. Environmental Science Pollution Research, 25(25), 24845-24859.

49. Statista. (2022). Pakistan: Distribution of gross domestic product (GDP) across economic sectors from 2011 to 2021. Statista. https://www.statista.com/statistics/3832 56/pakistan-gdp-distribution-across-economic-sectors/

50. Tariq, S., Jan, F., & Ahmad, M. S. (2014). Green employee empowerment: a systematic literature review on state-of-art in green human resource management. Quality & Quantity, 50. https://doi.org/10.1007/s11135-014-0146-0

51. Tosti-Kharas, J., Lamm, E., & Thomas, T. E. (2017). Organization OR Environment? Disentangling Employees' Rationales Behind Organizational Citizenship Behavior for the Environment. Organization and Environment, 30(3), 187-210. https://doi.org/10.1177/1086026616668 381

52. Ulrich, D., & Dulebohn, J. H. (2015). Are we there yet? What's next for HR? Human Resource Management Review, 25(2), 188-204.

53. Waseem, A., Arshad, J., Iqbal, F., Sajjad, A., Mehmood, Z., & Murtaza, G. J. B. r. i. (2014). Pollution status of Pakistan: a retrospective review on heavy metal contamination of water, soil, and vegetables. 2014.

54. Wexley, K. N. (1984). Personnel training. Annual review of psychology, 35(1), 519-551.

55. World's Most Polluted Cities in 2022 - PM2.5 Ranking | AirVisual. (2022). In.

56. WorldBank. (January 2023). Pakistan - Employment In Industry (% Of Total Employment). Trading Economics. https://tradingeconomics.com/pakistan/e mployment-in-industry-percent-of-total-employment-wb-data.html

57. Xie, X., & Zhu, Q. (2020). Exploring an innovative pivot: How green training can spur corporate sustainability performance. Business Strategy the Environment 29(6), 2432-2449.

58. Yong, J. Y., Yusliza, M. Y., Ramayah, T., Chiappetta Jabbour, C. J., Sehnem, S., Mani, V. J. B. S., & Environment, t. (2020). Pathways towards sustainability in manufacturing organizations: Empirical evidence on the role of green human resource management. 29(1), 212-228.

59. Zhang, D., & Du, P. (2020). How China "Going green" impacts corporate performance? Journal of cleaner production, 258, 120604.

60. Zhang, L., Godil, D. I., Bibi, M., Khan, M. K., Sarwat, S., & Anser, M. K. (2021). Caring for the environment: How human capital, natural resources, and economic growth interact with environmental degradation in Pakistan? A dynamic ARDL approach. Science of the Total Environment, 774, 145553-145553. https://doi.org/10.1016/j.scitotenv.2021. 145553

61. Zhang, Y., Luo, Y., Zhang, X., & Zhao, J. J. S. (2019). How green human resource management can promote green employee behavior in China: A technology acceptance model perspective. 11(19), 5408.