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An Empirical Study on An Organized Industrial Zone: Investigating the Intermediary Function of Green Voice Behavior in the Connection between Green Human Resource Management and Environmental Performance

Sercan Edinsel¹

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Abstract

The aim of this study is to find the mediating role of green voice behavior (GVB) in the relationship between green human resource management (GHRM) and environmental performance (EP). In order to achieve the stated purpose, the study was conducted in Aydın organized industrial zone which encompasses 45 enterprises. Data were collected by questionnaire method. And structural equation model (SEM) used in this study. 517 men and 180 women answered the questionnaire and a total of 697 questionnaires were returned. And nearly the half of this questionnaires (348) answered by food products manufacturing companies. The analyses in the study were conducted with SPSS 26 and AMOS programs. The result of the study shows that green promotive behavior (GPromVB or PROM) and green prohibitive behavior (GProhVB or PROH) has a partially mediator effect in the relationship between GHRM and EP. And GHRM has a significant effect on EP. Given the interdisciplinary nature of the study, it contributes to the integration of environmental management and Human Resource Management (HRM) theories and more holistic understanding of how organizations can effectively manage their environmental initiatives through GHRM. Based on the findings of the study, it contributes to the generalizability and external validity of GHRM principles. Furthermore, this study demonstrates that the mediating role of GVB is consistent across different organizational contexts and provides a valuable theoretical foundation for practitioners in various sectors. These results have implications for understandings about mediating role of GVB.

Keywords: green human resource management, green voice behavior, environmental performance, green practices, sustainability

* For this study, Rectorate of Artvin Çoruh University, Ethics Committee's decision numbered 72839 and ethics committee approval dated 05.12.2022 were received.

¹ Dr., Guest Lecturer, OSTİM Technical University, FEAS, Business Administration, Turkey, sedinsel@gmail.com, Orcid: 0000-0003-2831-7504



Bir Organize Sanayi Bölgesi Üzerine Ampirik Bir Çalışma: Yeşil İnsan Kaynakları Yönetimi ve Çevresel Performans Arasındaki Bağlantıda Yeşil Ses Davranışının Aracılık İşlevinin İncelenmesi

Özet

Bu çalışmanın amacı, yeşil insan kaynakları yönetimi (YİKY) ile çevresel performans (EP) arasındaki ilişkide yeşil ses davranışının (YSD) aracılık rolünü tespit etmektir. Belirtilen amaca ulaşmak için, çalışma 45 işletmeyi kapsayan Aydın organize sanayi bölgesinde gerçekleştirilmiştir. Veriler anket yöntemi ile toplanmıştır. Çalışmada yapısal eşitlik modeli kullanılmıştır. 517 erkek ve 180 kadın anketi cevaplamış ve toplam 697 anket geri dönmüştür. Bu anketlerin yaklaşık yarısı (348) gıda ürünleri üreten firmalar tarafından cevaplanmıştır. Çalışmadaki analizler SPSS 26 ve AMOS programları ile gerçekleştirilmiştir. Çalışmanın sonucu, yeşil teşvik edici davranış (GPromVB veya PROM) ve yeşil yasaklayıcı davranışın (GProhVB veya PROH) GHRM ve EP arasındaki ilişkide kısmen aracı etkiye sahip olduğunu göstermektedir. Ve GHRM'nin EP üzerinde önemli bir etkisi vardır. Çalışmanın disiplinler arası doğası göz önüne alındığında, çevre yönetimi ve İnsan Kaynakları Yönetimi (İKY) teorilerinin entegrasyonuna ve kuruluşların çevresel girişimlerini GHRM aracılığıyla nasıl etkili bir şekilde yönetebileceklerinin daha bütünsel bir şekilde anlaşılmasına katkıda bulunmaktadır. Çalışmanın bulgularına dayanarak, GHRM ilkelerinin genellenebilirliğine ve dış geçerliliğine katkıda bulunmaktadır. Ayrıca bu çalışma, GVB'nin aracılık rolünün farklı örgütsel bağlamlarda tutarlı olduğunu göstermekte ve çeşitli sektörlerdeki uygulayıcılar için değerli bir teorik temel sağlamaktadır. Bu sonuçlar, GVB'nin aracılık rolüne ilişkin anlayışlar için çıkarımlara sahiptir.

Anahtar Kelimeler: yeşil insan kaynakları yönetimi, yeşil ses davranışı, çevresel performans, yeşil uygulamalar, sürdürülebilirlik



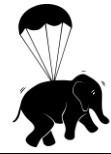
1. INTRODUCTION

In recent times, the growing environmental concerns have led to an increasing emphasis on GHRM in literature (Tanova and Bayighomog, 2022; Aftab and Veneziani, 2023). Particularly, various perspectives on the relationship between GHRM and EP have been explored (Bhatti et al., 2022; Al-Alawneh et al., 2023; Carballo-Penela et al., 2023). These relationships often suggest that a high degree of green-focused HR management contributes to enhancing EP (Ogiemwonyi et al., 2023). GVB is among the fundamental concepts aimed at promoting environmental sustainability and awareness, and it is considered a variable influencing the relationship between GHRM and EP. This research primarily delves into the mediating role of GVB in the relationship between GHRM and EP. GVB signifies individuals or organizations fulfilling their environmental responsibilities, behaving in an environmentally sensitive manner, and embracing principles of environmental sustainability. Therefore, this study aims to elucidate the mediating role of GVB in the relationship between GHRM and EP, focusing on the two key components of GVB: PROM (Tabrizi et al., 2023) and PROH (Nourafkan et al., 2023).

GHRM underscores the eco-centric handling of human resources, while EP reflects a company's environmentally conscious perspectives. Human resources play an active role in these processes. Resource Dependency Theory highlights how an organization's resources affect its competitive advantage (Chand and Tarei, 2021). Thus, the effective involvement of human resources in these processes is expected. PROM signifies employees and managers making positive contributions to improving workplace relationships and processes (Tabrizi et al., 2023). On the other hand, PROH involves employees identifying negative situations or environmental risks within their workplaces or organizations with the aim of promoting environmental sustainability (Nourafkan et al., 2023). Both concepts directly impact EP behaviorally. Determining the role of these two concepts in the relationship between GHRM and EP contributes to raising awareness for enhancing EP. Therefore, shedding light on this relationship and adding it to the literature highlights the significance of this research.

The methodology of this research primarily involves developing hypotheses that reveal relationships among variables and conducting analyses based on primary data. The research consists of four phases. In the first phase, the definition of variables and explanations of the relationships between them are established. The second phase involves determining the sampling area and collecting data. The third phase involves testing hypotheses through data analysis. The fourth phase involves identifying implications based on the obtained results.

The research sample comprises employees in industrial zones since companies in these areas make efforts to comply with environmental regulations, and employees contribute positively or negatively to these compliance efforts through their behaviors. Thus, understanding the effect of GVB of employees in industrial zones between GHRM and EP forms a primary focus of this study. The results of the research yielded two key findings. First, the levels of PROM among



employees partially mediate the relationship between GHRM and EP. Second, the levels of PROH among employees also partially mediate the relationship between GHRM and EP. Based on these findings, it is imperative to monitor and manage PROM and PROH levels to manage EP effectively.

This research contributes to the literature in several ways:

- It establishes that PROM and PROH levels among employees in industrial zones are precursors to determining EP levels, emphasizing the need for organizations to consider these variables in environmental management processes.
- It suggests that GVB of employees should be assessed within the scope of GHRM, and HR managers should pay attention to PROM and PROH levels during recruitment and performance evaluation processes.
- It highlights the importance of organizing training programs to improve PROM and PROH levels in the context of EP management. Overall, it suggests that focusing on green-focused HR management processes is crucial for EP management, in addition to product and process-oriented approaches.

This paper is structured into seven sections. Section 2 presents the conceptual framework. Section 3 explains the research model and hypotheses. Section 4 outlines the research methodology. Section 5 presents the results. Section 6 discusses and concludes the findings. Section 7 explains the implications and limitations.

2. CONCEPTUAL FRAMEWORK

In the conceptual framework section, the concepts of Green Human Resource Management, Green Voice Behavior and Environmental Performance will be explained.

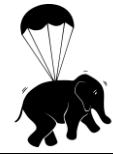
2.1. Conceptual Approach to Green Human Resource Management

The term GHRM refers to the strategic balancing of traditional HRM procedures with long-term goals for the environment-related sustainable growth of a business. It constitutes a multifaceted process that comprehends the principles of environmental sustainability, embraces these principles, and integrates them throughout the organization. GHRM takes direct responsibility for cultivating a workforce that is environmentally conscious while upholding green objectives and values in all facets of HRM (Masri and Jaroon, 2017). In essence, GHRM is described as a collection of policies, practices, and procedures aimed at creating environmentally conscious personnel inside a company, benefitting individuals, society, the environment, and the organization as an entire (Opatha and Arulrajah, 2014).

The literature on this topic is often associated with the integration of traditional HRM functions with green (Larasati, 2018; Peerzadah et al., 2018; Abdeen and Ahmed, 2019; Palguna, 2021). These functions are different at the various studies. In their studies Masri and Jaroon (2017) presents an empirical assessment and measurement of impact of GHRM practices in



manufacturing organizations on EP in Palestinian context. The research approach, using both qualitative and quantitative aspects, extracted six main GHRM practices (such as green recruitment and selection, green training and development, green performance management and appraisal, green reward and compensation, green employee empowerment and participation, and green management of organizational culture) used in manufacturing organizations from literature review and field data through conducting 17 semi-structured interviews with HR managers. The result of their study showed that there is a statistically positive and significant relationship at a significant level between the six GHRM practices and EP. Ali et al. (2020) study found the importance of GHRM ideas, practices, strategies, and difficulties in the business and other organizations. They found the importance of GHRM practices for a company such as green human resource planning, green human resource recruitment, green orientation, green human resource training and development, green performance appraisal system, green learning and development programs, green compensation and reward system and green employee relations. In their paper Alshaabani et al. (2021) explores the role of GHRM in predicting the green work engagement of employees of three big energy companies operating in Hungary. The result of their study showed that only green rewards, green training, and green performance management significantly predicted green work engagement. Kodua et al. (2022) aim to investigate the critical barriers to GHRM implementation among Ghanaian firms. Results showed that the economic barrier accounted for 23.3% of GHRM hindrances and the political and regulatory barrier (20.1%) came second, while the culture and education barrier (18.2%) ranked lowest. In their study Ari et al. (2020) use the AMO framework, social exchange theory, social information processing and reformulation of attitude theories, and the happy-productive thesis as the theoretical underpinnings. Their study proposes a conceptual model of GHRM. And also they link GHRM to organizationally valued pro-environmental behaviors such as task-related pro-environmental behaviors, proactive pro-environmental behaviors, green recovery performance, and GVB through the mediating roles of work engagement and job satisfaction. And also they highlight eight indicators of GHRM such as green selective staffing, green training, green empowerment, green rewards, green career opportunities, green teamwork, green work-life balance, and green participation in decision making. Ercantan and Eyüpoğlu (2022) aims to investigate the perceptions of prospective employees (university students) towards organizations practicing GHRM and how these perceptions could influence their future green behavior in the workplace. Results showed that GHRM had a direct influence on prospective employees' perceived green task-related and voluntary behaviors and an indirect influence via the mediation of psychological green climate perception. Faisal (2023) make a systematic review of GHRM. The study was undertaken for identifying various factors and measuring tools of GHRM. Result of this study showed that green recruitment and selection, green training and development, green compensation management, green performance management, green employee empowerment and participation, and green employee relations found as a measuring tool for GHRM.



Opatha (2013) defines "green" in the context of HRM as "the preservation and conservation of the natural environment, the prevention or reduction of environmental pollution, and the creation of green spaces that resemble natural environments." The primary objective of GHRM is to raise employees' awareness regarding the challenges of environmental management. This includes identifying necessary activities, understanding how to execute them effectively, and recognizing how they can contribute to environmental protection (Ali et al., 2020). Hence, it can be inferred that GHRM guides employees in engaging in GVB.

2.2. Conceptual Framework of Green Voice Behavior

GVB is based on the same conceptual and theoretical framework as Voice Behavior (VB). As known VB is defined as employees expressing their views or concerns about current and potential situations related to their work area or team, through an upward communication of their own will (Morrison, 2014). It also refers to employee responses to work, which includes talking about or raising issues at work (Mowbray et al., 2015). In addition to this, GVB, includes the sharing of opinions and suggestions of the employees regarding green practices in the organization. In other words, GVB differs than VB with the term "green". GVB is defined as making new proposals for green activities and also suggesting changes to designed standard procedures even if other employees disagree (Ari et al., 2020). In other words, GVB is defined as "employees' novel and innovative suggestions for the firm's environmental sustainability efforts and green initiatives even though other relevant parties show disagreement." (Tabrizi et al., 2023). It is a way that employees use to express their opinions on environmental issues so that they can be heard by the organization, and it is one of the organizational strategies in managing their views with the employee environment (Tyas and Puspa, 2023). It encourages certain behaviors like speaking up with proposals for environmental sustainability and questioning the status quo (Zacher and Rudolph, 2022), and it allows staff members to express their views and comments about the environment (Thabeta et al., 2023).

However, VB can also be defined as the expression of constructive ideas aimed at enhancing organizational processes, whether occurring informally (LePine and Van Dyne, 1998), or as a response intended to communicate disagreements, dissatisfaction, or grievances (Ünüvar and Demirtaş, 2021). In a similar vein, just as VB can encompass both promotive and prohibitive aspects (Van Dyne and LePine, 1998; Nourafkan et al., 2023), GVB can also encompass promotive and prohibitive elements (Tabrizi et al., 2023). For instance, when employees put forward new proposals to improve the EP of the organization, this can be referred to as PROM. Conversely, when employees' express concerns about work-related issues, events, or behaviors that undermine the firm's environmental sustainability efforts, this can be termed as PROH as defined by Nourafkan et al. (2023).

Task-related pro-environmental behaviors, proactive pro-environmental behavior, green recovery performance, and GVB can be grouped under pro-environmental behaviors (Bissing-Olson et al., 2013; Ari et al., 2020). Task-related pro-environmental behavior comprises



performing the formal activities or tasks mentioned in the job description in an environmentally friendly way (Norton et al., 2015). Proactive pro-environmental behaviors highlight “. . . the extent to which employees take initiative to engage in environmentally friendly behaviors that move beyond the realm of their required work tasks” (Bissing-Olson et al., 2013, p.158). So it's important to note that GVB is grouped under pro-environmental behaviors. In their study Ari et al. (2020) found out that work engagement and job satisfaction as the underlying mechanisms through which GHRM influences employees' pro-environmental behaviors. Aboramadan et al. (2022b) propose a research model to investigate the impact of green human resources management (GHRM) on nonprofit employees' green work-related outcomes, namely GVB, green knowledge-sharing behavior and green helping behavior. The results of their study showed that GHRM is positively associated with GVB, green knowledge-sharing behavior and green helping behavior. In their study Tabrizi et al. (2023) aimed to test the interrelationships of GHRM, job embeddedness (JEM), PROM and PROH on restaurant employees working in Northern Cyprus. And the findings of this study showed that GHRM increases restaurant employees's JEM. Employees with high level JEM exhibit elevated levels of PROM and PROH. Nourafkan et al. (2023) explores the interrelationships of corporate social responsibility, workplace spirituality, PROM, and PROH of hotel employees in Northern Cyprus. Results showed that employees' favourable perceptions of corporate social responsibility enhance feelings of workplace spirituality, PROM, and PROH. They collected data from hotel employees in two waves and their, which in turn leads to PROM and PROH at increade levels. In conclusion, workplace spirituality mediates the effect of corporate social responsibility on PROM and PROH.

In order to increase knowledge of the value of environmentally friendly actions, GVB works to educate workers about how to act sustainably at work and in the workplace environment. It is not sufficient for this awareness to merely exist within the workforce; the institution must also be motivated by the implementation of GHRM applications that may be utilized to boost environmental interest.

2.3. Conceptualization of Environmental Performance

EP refers to a person's, a group's, or a society's quantifiable results and effectiveness in terms of their effects on the environment and activities that support sustainability. According to Roscoe et al. (2019), it includes a range of programs and actions aimed at reducing environmental harm and promoting responsible resource use. Energy use, greenhouse gas emissions, waste production, water use, and biodiversity conservation efforts are just a few examples of the metrics that may be used to evaluate EP (Henri and Journeault, 2008). To attain a high level of EP, it necessitates a commitment to implementing sustainable practices, adopting cleaner technologies, and adhering to environmental regulations and standards. It also involves the continuous monitoring, evaluation, and enhancement of environmental management systems to ensure ongoing progress and reduce ecological footprints (Dubey, 2015; Patel et al., 2022).



GHRM and GVB have the potential to exert an important influence on EP. GHRM practices encompass the integration of environmental considerations into HRM strategies, promoting engagement among employees, recruitment of individuals with environmental awareness, performance management aligned with environmental objectives, and the provision of training and development opportunities (Gill et al., 2021). This, in turn, fosters a workforce equipped with knowledge about sustainability and actively involved in environmentally responsible practices (Nisar et al., 2021). Conversely, GVB encourages employees to proactively advocate for sustainability within the organization, promoting innovation, collaboration, and organizational learning (Trezise and Richardson, 2023). Through the sharing of ideas, concerns, and proposals for environmentally friendly alternatives, employees become catalysts for change and positively influence their peers, leading to a broader cultural shift towards sustainability. Collectively, GHRM and GVB empower organizations to enhance EP by harnessing the collective expertise, competencies, and dedication of their workforce, ultimately contributing to a more sustainable future (Tabrizi et al., 2023).

3. HYPOTHESIS DEVELOPMENT AND RESEARCH MODELS

This study analyzes the connections between components like GHRM, GVB, and EP using detailed conceptual frameworks for these constructs. It also refers to past research that looked at the connections between these concepts.

Yusoff et al. (2020) investigated the GHRM utilizing green hiring and selection, green training and development, green performance appraisal and green compensation. They asserted that there is a link between these variables and EP except green performance appraisal. Rawashdeh (2018) found a positive relationship between EP and the GHRM's techniques for recruitment and selection, training and development, and incentives. Roscoe et al. (2019) discovered a significant positive connection between GHRM and EP. According to Gilal et al. (2019), GHRM practice is favorably connected with EP ($r = .489^{**}$). Burlea-Schiopoiu et al. (2022) discover a link between GHRM practices and organizational performance in the tobacco business. Irani et al. (2022) say that GHRM practices have a positive impact on EP H5 ($\beta = 0.216, p < .003$)

H₁: GHRM has a significant effect on EP in organized industrial zone.

There are studies in the literature that investigate the relationship between GHRM and GVB (Ari et al., 2020; Aboramadan et al., 2022a; Tyas and Puspa 2023), but Tabrizi et al. (2023) investigated the links between GHRM, job embeddedness, PROM, and PROH. Their findings suggested that GHRM did not exhibit significant associations with GPromVB ($\beta = 0.080, p > 0.001, f^2 = 0.006, H4$) or GProhVB ($\beta = 0.145, p > 0.001, f^2 = 0.022, H5$). They concluded that different types of GHRM practices may not directly and substantially impact GVB. However, Sabokro et al. (2021) proposed a different perspective, asserting that GHRM does have a positive and statistically significant effect on Employees' Green Behavior (EGB) ($\beta = 0.134, 0.377, \text{ and } 0.320, p\text{-value} < 0.001$).

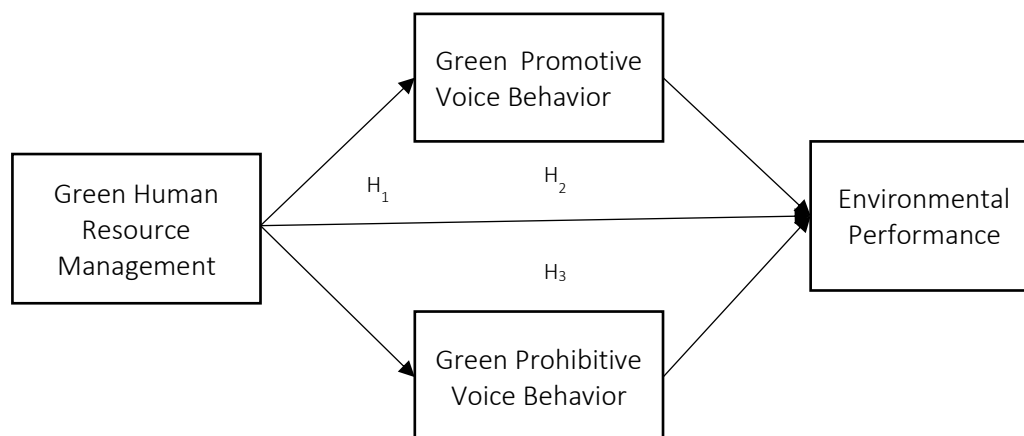


H₂: PROM has a mediating effect between GHRM and EP in organized industrial zone.

H₃: PROH has a mediating effect between GHRM and EP in organized industrial zone.

The research model of the hypotheses is presented in Figure 1.

Figure 1. Research model-1



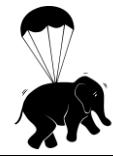
4. RESEARCH METHOD

4.1. Scales of the Research

In order to investigate the effects of GHRM on the EP of businesses operating within organized industrial zones, this empirical study concentrated on the mediating role of GVB, which includes both PROM and PROH. A questionnaire survey was used to acquire the data for this study. The six-item GHRM scale used in this investigation was modified from Dumont et al. (2016) and has a reliability value of 0.88 according to Cronbach's alpha. The GVB scale used had ten items, evenly divided between PROM and PROH, with Cronbach alpha reliability ratings of 0.87 and 0.86, respectively. It was taken from Liang et al. (2012). The EP scale, which consists of six items and has a Cronbach alpha reliability rating of 0.889, was adapted from Memon et al. (2022). Initial versions of the questionnaire were written in English. Two multilingual academics translated the questionnaire into Turkish, ensuring linguistic precision and clarifying any misunderstandings through further talks. A 5-point Likert scale was employed for all study variables, ranging from 1 (strongly disagree) to 5 (strongly agree).

4.2. Sampling

In this study, which investigates the relationship between GHRM, PROM, PROH, and EP in organized industrial zone companies, the research sample was drawn from employees working within the Aydın Organized Industrial Zone. Aydın Organized Industrial Zone is home to 45 registered companies (AOSB, 2023). The research was conducted using a questionnaire format, and the prepared questionnaires were electronically distributed to employees. A total of 697



valid responses were received. Data collection for the survey took place during the months of March and April in 2023. Business owners were contacted in January and February and the dates on which the questionnaire could be administered were determined. Within the scope of the determined dates, a timetable was prepared and the dates on which the enterprises would be visited were determined. Subsequently, the questionnaire was applied by going to the enterprises on the determined dates. The sample was selected using the convenience sampling method from companies, and based on a 95% confidence level, the 697 respondents were deemed to be sufficient for the study (Barlett et al., 2001). The use of this method is considered to be advantageous due to some specific characteristics of the organized industrial zone. Firstly, the employees in the organized industrial zone have limited time to devote to the survey due to their busy work schedule. And this technique enables the researchers to receive the timely response in comparison with the probability sampling techniques (Jager et al., 2017). Secondly, this method was preferred because the enterprises operating in the organized industrial zone are scattered (Bornstein et al., 2013). The third reason is that some employees were reluctant to participate in the survey, even though permission was obtained from the management. Finally, it was used specifically because it is both practical and convenient for both researchers and participants. Researchers collect data from readily available sources and participants find it convenient to participate in the study due to its accessibility (Sedgwick, 2013).

Table 1. Sampling

Gender	No	%	Industrial Area	No	%
Woman	180	26	Wood Manufacturing Industry	13	1.87
Man	517	74	Packaging Manufacturing Industry	23	3.30
Age	No	%	Ready Mixed Concrete Manufacturing Industry	27	3.87
18-30	190	27.30	Recycle Industry	24	3.44
31-40	212	30.40	Manufacturing of Food Products	348	49.93
41-50	195	28.00	Machine Manufacturing Industry	17	2.44
50 +	100	14.30	Fabricated Metal Products	113	16.21
Tenure	No	%	Furniture Manufacturing Industry	43	6.03
0-5	109	15.60	Manufacturing of Clothing	76	10.90
6-10	255	36.60	Construction Elements Manufacturing Industry	14	2.01
11-20	289	41.50			
21 +	44	6.30			
Total	697	100	Total	697	100

The demographic composition of the sample is displayed in Table 1. Among the research participants, 74% are male, while 26% are female. It is considered that such a result has emerged due to the fact that the surveyed region is an organized industrial zone. As for the age group of participants it is seen that 190 participants are between the ages of 18-30, 212 participants are between the ages of 31-40, 195 participants are between the ages of 41-50 and 100 participants are 50 and over. According to this result, employees between the ages of 31-50 constitute more than half of the respondents (407). There may be many reasons for this. Employees between the ages of 31-50 are generally more important to business managers because they have more work experience and expertise, and experienced employees do their jobs more effectively. The



fact that younger employees may be more inclined to change jobs is another issue that is considered to have an impact on this result. The fact that employees in this age range usually have families and have the responsibility of taking care of them is another issue that has an impact on such a result. In terms of tenure, it is seen that the number of participants with 0-5 years of service is 109, the number of participants with 6-10 years of service is 255, the number of participants with 11-20 years of service is 259 and the number of employees with 21 years of service or more is 44. According to this result, 78% of the participants (544) have a tenure between 6-20 years. The reason for this, organized industrial zones are areas where large and well-established enterprises are located. These companies are generally considered to offer stable business opportunities.

5. RESULTS

5.1. Normality Test

In this study, we employed the GHRM, PROM, PROH, and EP scales. In this section, we conducted a series of assessments including sampling proficiency, normality testing, as well as validity and reliability tests for these scales. All of these evaluations were carried out using the SPSS software. The normality test employed the Kolmogorov and Smirnov (KS) normality test. The results of the KS normality test, as well as the kurtosis and skewness scores, are presented in Table 2. It is expected that the kurtosis scores for the variables should be less than "3," and the skewness scores should be less than "10," as suggested by Kline (2011, p.63). The kurtosis and skewness values displayed in Table 2 indicate a normal distribution. Consequently, it can be concluded that dataset exhibits a normal distribution.

Table 2. Normality test findings, skewness, and kurtosis scores

Scales	N	Mean	SD	Kolmogorov-Smirnov Z	Asymp. Sig.	Skewness	Kurtosis
GHRM	697	4.079149	0.930019	4.251900	0.000	-1.04611	0.545891
PROM	697	3.513056	0.977720	2.025256	0.000	0.266296	-0.58306
PROH	697	3.674605	0.956797	2.418523	0.000	0.405604	-0.54725
EP	697	4.346724	0.660577	4.738162	0.000	-1.28357	1.849276

5.2. Reliability and Validity Tests

Utilizing the Kaiser Meyer Olkin (KMO) and Bartlett's Test of Sphericity (BTS), the suitability of the sample region was evaluated. Table 3 displays the results of the KMO and BTS testing. All of the variables, including GHRM, PROM, PROH, and EP, had KMO values more than 0.70 and BTS values below 0.01. The sample area was extremely adequate, achieving a notable degree of adequacy, according to these data (Tabachnick and Fidell, 2013). Additionally, the GHRM, PROM, PROH, and EP scales had Cronbach's Alpha values of 0.934, 0.859, 0.877, and 0.859, respectively (Table 3). All of these scales have a high level of dependability, as indicated by these values.

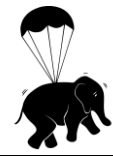


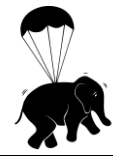
Table 3. KMO, BTS, and the cronbach's alpha findings

	GHRM	PROM	PROH	EP
KMO	0.909808	0.859	0.847	0.884
Approx. Chi-Sq.	3383.009325	1553.320481	1924.869038	2216.108786
BTS df	15	10	10	15
Sig.	0.000	0.000	0.000	0.000
Cronbach's Alpha(α)	0.934	0.859	0.877	0.859

The methodology section already details the scales utilized in this research. Given that the study was conducted in Turkey, the scale expressions were translated into Turkish, following the recommended steps outlined by Brislin et al. (1973) to ensure accurate translation across different languages and cultures. To account for this translation and the application in a distinct sample area, an Exploratory Factor Analysis (EFA) was carried out, utilizing the SPSS software. The EFA results are presented in Table 4, indicating that all scale items exhibited factor loadings greater than 0.40. Moreover, the Total Variance Percentage aligns with expected levels (Büyüköztürk et al., 2008). Furthermore, the scales demonstrated both convergent and divergent validity, as evidenced by the AVE (Average Variance Extracted) and CR (Composite Reliability) values. The AVE values for the scales exceeded 0.50, and the CR values surpassed the AVE values, in accordance with the criteria established by Fornell and Larcker (1981).

Table 4. EFA findings

Items	Factor Loads	Eigenvalues / Total Variance Percentage	AVE / CR
GHRM3- "My company provides employees with green training to develop employees' knowledge and skills required for green management."	0.894		
GHRM2- "My company provides employees with green training to promote green values."	0.878		
GHRM4- "My company considers employees' workplace green behavior in performance appraisals."	0.877	4.529 / % 75.486	0.755 /
GHRM5- "My company relates employees' workplace green behaviors to rewards and compensation."	0.870		0.949
GHRM1- "My company sets green goals for its employees."	0.868		
GHRM6- "My company considers employees' workplace green behaviors in promotion."	0.824		
PROM3- "I raise suggestions to improve my company's environmental procedure."	0.865		
PROM2- "I proactively suggest new projects which are beneficial to the environment of my company."	0.859		
PROM1- "I proactively develop and make suggestions for issues that may influence the environmental decisions of the company."	0.802	3.229 / % 64.589	0.646 /
PROM4- "I proactively voice out constructive suggestions that help my company reach its environmental goals."	0.754		0.900
PROM5- "I make constructive suggestions to improve my company's environmental operation."	0.730		

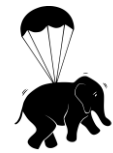


PROH4- "I dare to point out environmental problems when they appear in my company, even if that would hamper relationships with other colleagues."	0.884		
PROH3- "I dare to voice out opinions on things that might affect the environmental efficiency in my company even if that would embarrass others."	0.864		0.679
PROH5- "I proactively report environmentally related coordination problems in the workplace to the management."	0.864	3.393 / % 67.855	/ 0.913
PROH1- "I advise other colleagues against unfriendly behaviors that would hamper environmental performance of my company."	0.800		
PROH2- "I speak up honestly with problems that might cause serious damage to the environment of my company, even when/though dissenting opinions exist."	0.692		
EP4- "My company provides consumption decrease for hazardous/harmful/toxic materials."	0.887		
EP3- "My company provides reduction of solid wastes."	0.871		0.625
EP1- "My company provides reduction of air emission."	0.845	3.751 /	/
EP6- "My company improves a company's environmental situation."	0.816	% 62.517	0.927
EP2- "My company provides reduction of wastewater."	0.766		
EP5- "My company decreases of frequency for environmental accidents."	0.490		

The results of the Confirmatory Factor Analysis (CFA) are displayed in Table 5. These CFA analyses were conducted using the AMOS program. The estimate and standard error values fell within acceptable ranges. Furthermore, the model fit values met the criteria for acceptability, as established by Tabachnick and Fidell (2013). According to the findings of the validity and reliability tests, the scales are reliable and valid.

Table 5. CFA findings

Parameter Estimates	Estimate	S.E.	Fit Values
Measuring Model			
GHRM5<--- GHRM	0.883*	0.041	"X ² [6.6, N=697] = 5, CMIN/df (1.328) **, CFI (1.000)***, RFI (0.994)***, IFI (1.000)***, TLI (0.999)***, NFI (0.998)***, RMSA (0.022)****"
GHRM4<--- GHRM	0.869*	0.036	
GHRM1<--- GHRM	0.856*	0.040	
GHRM3<--- GHRM	0.850*	0.040	
GHRM2<--- GHRM	0.794*	0.045	
GHRM6<--- GHRM	0.710*	0.041	
PROM3<--- PROM	0.869*	0.045	"X ² [2.3, N=697] = 4, CMIN/df (0.587) **, CFI (1.000)***, RFI (0.996)***, IFI (1.001)***, TLI (1.003)***, NFI (0.998)***, RMSA (0.000)****"
PROM2<--- PROM	0.819*	0.043	
PROM1<--- PROM	0.736*	0.046	
PROM4<--- PROM	0.697*	0.048	
PROM5<--- PROM	0.635*	0.049	



PROH4<--- PROH	0.907*	0.047	$\chi^2 [14.3, N=697] = 3$, CMIN/df (4.763)**, CFI (0.994)***, RFI (0.975)***, IFI (0.994)***, TLI (0.980)***, NFI (0.993)***, RMSA (0.074)*****
PROH3<--- PROH	0.872*	0.043	
PROH5<--- PROH	0.784*	0.044	
PROH1<--- PROH	0.659*	0.039	
PROH2<--- PROH	0.557*	0.048	
EP4 <--- EP	0.891*	0.031	$\chi^2 [16.5, N=697] = 7$, CMIN/df (2.354)**, CFI (0.996)***, RFI (0.984)***, IFI (0.996)***, TLI (0.991)***, NFI (0.993)***, RMSA (0.044)*****
EP3 <--- EP	0.860*	0.031	
EP1 <--- EP	0.795*	0.034	
EP6 <--- EP	0.729*	0.024	
EP2 <--- EP	0.709*	0.023	
EP5 <--- EP	0.367*	0.040	

Notes: **p<0.01, ** CMIN/df< 5 (Acceptable fit), *** CFI, NFI, RFI, IFI, TLI > 0.90 (Good fit), **** RMSA< 0.05 (Good fit), ***** 0.05 <RMSA< 0.08 (Acceptable fit)

5.3. Test of the Research Hypothesis

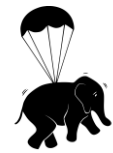
To establish a structural model depicting the relationships among the variables, this study was initially assessed the correlations between these variables. Table 6 presents the correlation associations among the variables, and it's important to note that all of these correlations are statistically significant. In particular, this study was focused on examining the correlation connections between the dependent variable, EP, and the independent variables. Among these correlations, the weakest one is observed between PROM and EP ($r(697)=0.357$, $p<0.01$), while the strongest correlation is found between PROM and PROH ($r(697)=0.881$, $p<0.01$). It's worth noting that the correlation level between GHRM and EP falls within the moderate range ($r(697)=0.579$, $p<0.01$).

Table 6. Correlations findings

Variables	Mean	S.D	GHRM	PROM	PROH	EP
GHRM	4.079149	0.930019	1			
PROM	3.513056	0.977720	0.364*	1		
PROH	3.674605	0.956797	0.397*	0.881*	1	
EP	4.346724	0.660577	0.579*	0.357*	0.375	1

Notes: *p < 0.01 (2-tailed)

Two hypotheses are included in the research model. The first hypothesis investigates how GHRM affects EP, while the second hypothesis investigates how PROM acts as a mediator in the link between GHRM and EP. GHRM acts as the independent variable and EP as the dependent variable in our initial structural equation model (SEM). Figure 2 illustrates the outcomes of the Structural Equation Model (SEM). On GHRM and EP has a substantial impact. Table 7 displays the GHRM and EP estimate results and standard error values. Moreover, model



fit values are at an acceptable level. According to this finding, *the first hypothesis is accepted*. ($\beta = 0.50, p < 0.01$).

Figure 2. The path analysis model of GHRM, EP findings

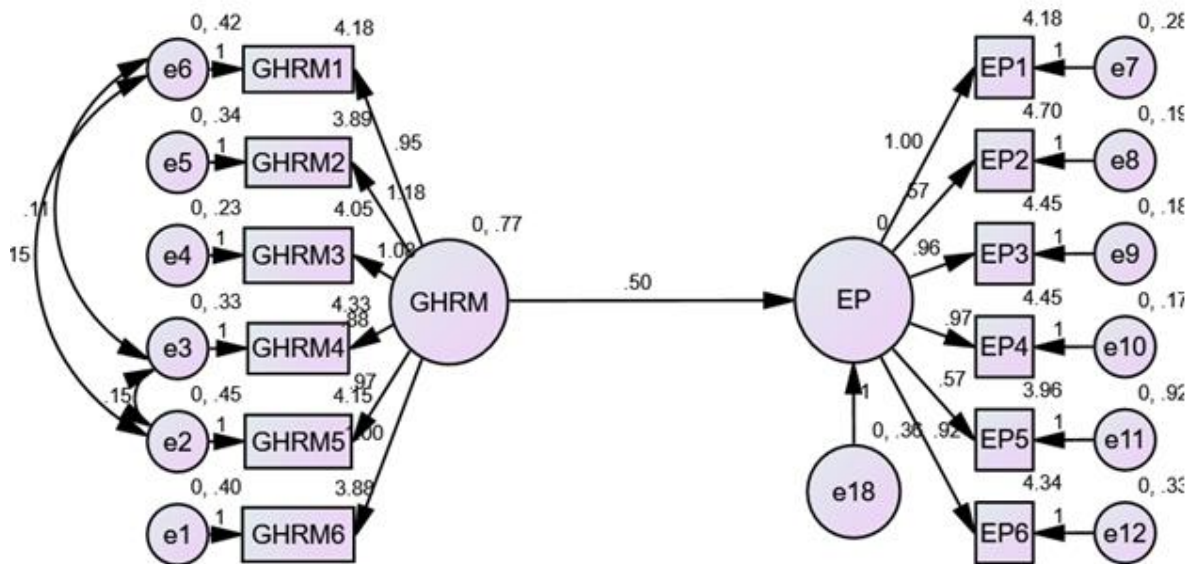


Table 7. The path analysis model of GHRM and EP findings

Parameter	Estimate	S.E.	Fit Values
Structural Model			
EP<---			$\chi^2 [222.2, N=697] = 50$, CMIN/df (4.443)**, CFI (0.971)***, RFI (0.951)***, IFI (0.971)***, TLI (0.962)***, NFI (0.963)***, RMSA (0.070)****
GHRM	0.50*	0.035*	

Note(s): * $p < 0.01$, ** $3 < \text{CMIN}/df < 5$ (Acceptable fit), *** CFI, NFI, RFI, IFI, TLI > 0.90 (acceptable fit), **** $0.05 < \text{RMSA} < 0.08$ (Acceptable fit)

The study used the Baron and Kenny (1986) method to investigate mediating models, which has a few requirements: (i) The independent variables must significantly affect the dependent variable. (ii) The independent factors must also have a sizable influence on the mediating factor. (iii) The dependent variable must be significantly impacted by the mediator variable in turn. (iv) The influence of the independent factors on the dependent variables should either cease to exist or become less significant once the mediator variable has been incorporated into the model. In this empirical study, the first hypothesis was evaluated to see if the independent variable had any impact on the dependent variable, and it was found to be true. In other words, the first condition was met since it was discovered that the independent variable (GHRM) significantly affected the dependent variable (EP). The mediator variable was then included in the model. Figures 3 and 4 show the standardized SEM model. Tables 8 and 9 present the results of the path analysis. Model fit values are found to be at an acceptable level. It is determined that the independent variables (GHRM) had a significant effect on the mediating variables (PROM and PROH) in the relations between the variables ($\beta_{GHRM} = 0.41, p < 0.01$ and $\beta_{GHRM} = 0.41, p < 0.01$). The second condition is met. The mediator variables (PROM and PROH) have an effect on the dependent variable ($\beta_{PROM} = 0.08, p = 0.049 < 0.05$ and $\beta_{PROH} = 0.08,$



$p=0.034<0.05$). The third condition is met. After the mediator variables are included the model, the effect of GHRM on the dependent variable (EP) became significant ($\beta_{GHRM} = 0.55$, $p<0.01$ and $\beta_{GHRM} = 0.55$, $p<0.01$). At this point, it has been determined that PROM and PROH has a partially mediator effect in the relationship between GHRM and EP. Our second and third hypothesis was supported.

Figure 3. The path analysis model of GHRM, PROM, EP findings

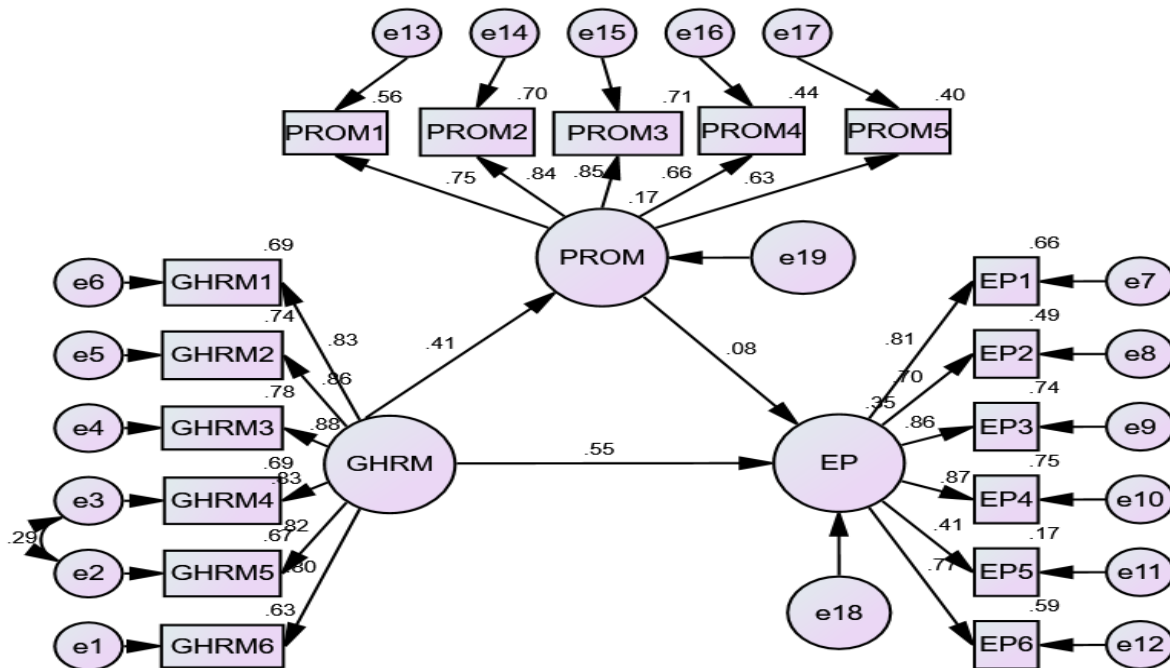


Table 8. The path analysis model of GHRM, PROH, EP findings

Parameter	Estimate	S.E.	Fit Values
Structural Model			
PROM<--- GHRM	0.41*	0.045	χ^2 [550.4, N=697] = 115, CMIN/df (4.786)***, CFI (0.944)****, RFI (0.918)****, IFI (0.944)****, TLI (0.934)****, NFI (0.930)****, RMSA (0.074)*****
EP<--- PROM	0.08**	0.032	
EP<--- GHRM	0.55*	0.038	

Note(s): * $p<0.01$, ** $p=0.049<0.05$, *** $3<CMIN/df<5$ (Acceptable fit), **** CFI, NFI, RFI, IFI, TLI > 0.90 (Acceptable fit), ***** $0.05 < RMSA < 0.08$ (Acceptable fit)



Figure 4. The path analysis model of GHRM, PROH, EP findings

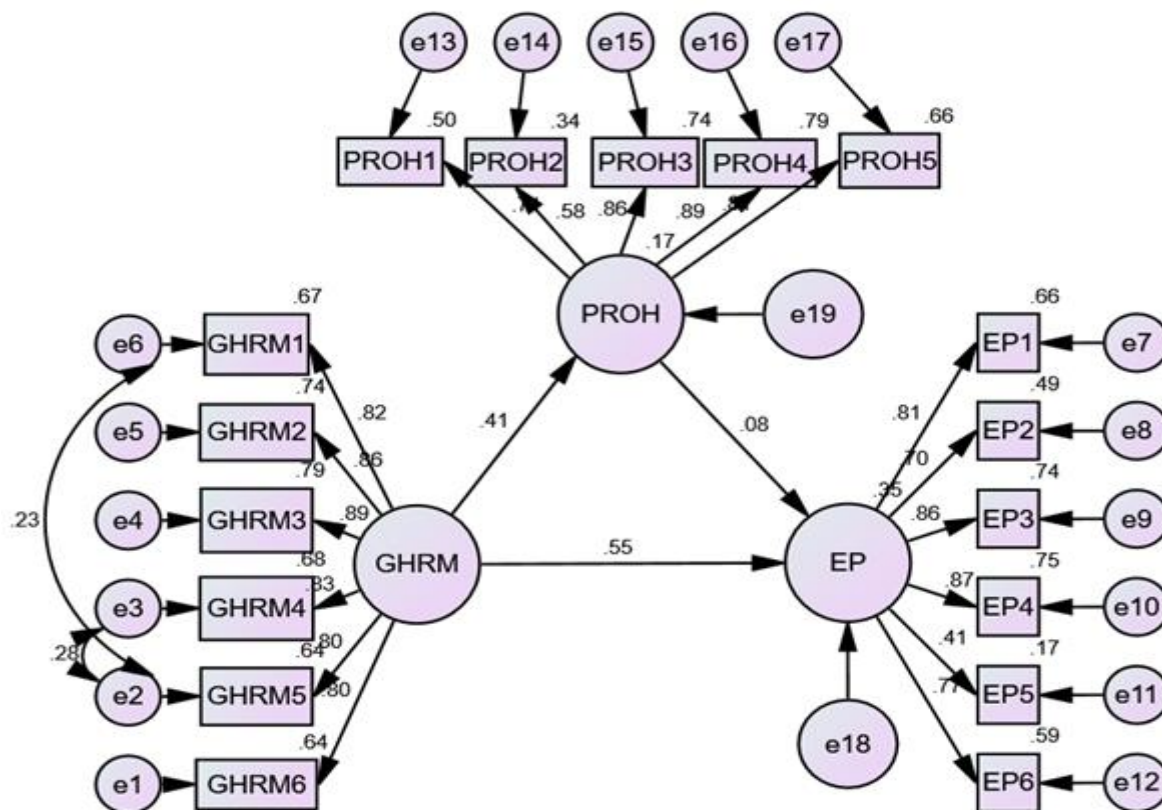


Table 9. The path analysis model of GHRM, PROH, EP Findings

Parameter	Estimate	S.E.	Fit Values
Structural Model			
PROH<--- GHRM	0.41*	0.045	X ² [557.4, N=697] = 114, CMIN/df (4.889)***, CFI (0.945)****, RFI (0.919)****, IFI (0.946)****, TLI (0.935)**** NFI (0.933)****, RMSA (0.075s)*****
EP <--- PROH	0.08**	0.032	
EP <--- GHRM	0.55*	0.038	

Note(s): *p<0.01, ** p=0.034<0.05, *** 3<CMIN/df<5 (Acceptable fit), **** CFI, NFI, RFI, IFI, TLI > 0.90 (Acceptable fit), *****0.05 <RMSA< 0.08 (Acceptable fit)

6. DISCUSSIONS and CONCLUSION

The purpose of this empirical study is to investigate how GVB mediates the relationship between GHRM and EP. There are many reasons for adopting this purpose. Firstly, many organizations today have sustainability goals and commitments, due to customers, stakeholders or legal policies. As they strive to integrate their operations with environmental sustainability, there is a growing interest in studying how GHRM may bridge the gap and create significant environmental effects. And because GVB is important for its empowerment of employees to contribute to environmental sustainability efforts, fosters a culture of innovation and continuous improvement, reduces environmental impact, enhances employee engagement, and positively influences an organization's reputation and bottom line. Encouraging and valuing GVB is an essential aspect of achieving sustainability goals and fostering a responsible and



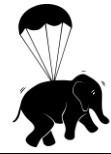
environmentally conscious workplace. In this respect, it is important to determine the mediating role of GVB in the relationship between GHRM and EP. Secondly, prior research has shown a positive relationship between GHRM and EP, but there was limited understanding of the mechanisms through which this relationship operates. By introducing the concept of GVB as a mediator, this study seeks to bridge this gap and provide a more comprehensive understanding of how GHRM influence EP. And finally by examining the mediating role of GVB, this research takes a holistic approach to understanding the complex interplay between GHRM and EP. This research has two major objectives. First, to find out whether GHRM has a big and good influence on EP. Second, this study seeks to identify the exact functions that PROM and PROH play in the interplay between GHRM and EP.

The results of the first hypothesis show that GHRM has a significant and positive impact on EP. This finding is consistent with earlier research. Rawashdeh (2018) aim to explore the relationship between GHRM practices, including green recruitment and selection, green training and development, and green rewards, and EP in Jordanian health service organization. The results of the study showed a moderate implementation of GHRM in Jordanian hospitals, the strongest correlation was with recruitment and selection while the weakest correlation was with training and development. Statistical positive association also was indicated between the three HRM practices and EP. Roscoe et al. (2019)' study examines the relationship between GHRM practices, the enablers of green organisational culture, and a firm's EP in China's manufacturing firms. Conclusion of this study showed that GHRM significant influences EP. Gilal et al. (2019) examines the influence of GHRM practices on EP using data from higher education institutions. Findings of this study showed that GHRM practices positively enhance EP via employees' environmental passion Ren et al. (2021)' study proposes and tests a model grounded in resource-based theory to describe how the formal rules embedded in an organization's GHRM combine with informal cues communicated by members of the firm's upper echelon, including the CEO and members of the top management team, to affect a firm's EP. Result of the study showed that The results show that CEO ethical leadership moderates the positive relationship between GHRM and top management team green commitment, which in turn mediates the relationship between GHRM and firms' EP. In their research Sobaih et al. (2020) aims to investigate the influences of GHRM practices by owner-managers of small lodging enterprises on their enterprises' green innovation and EP in Egypt's small lodging enterprises. Results of the study showed positive and significant influences of owner-managers' green ability, motivation and opportunity on both enterprise green innovation and EP. Nisar et al. (2021) examines the role of GHRM towards the EP of green hotels in Malaysia while investigating the the mediating effect of green intellectual capital and pro-environmental behavior. Findings of the study showed that GHRM indirectly contribute to EP through green intellectual capital and pro-environmental behaviors. Gill et al. (2021)' study aims to examine the change in EP through GHRM in a developing country's higher education institutes in Pakistan. The results of the study indicate the positive influence of GHRM policies on EP and provide significant insights on the partial mediating effect of employee eco-friendly behavior



between GHRM and EP. In their study Aggarwal and Agarwala (2022) aims to focus on investigating the relationship between GHRM and EP in private and public sector organizations located in India. As for the result of this study, authors found the GHRM practices to be significantly related with EP of the organization. Aftab et al. (2022) aims to find whether green innovation, environmental strategy and pro-environmental behaviour facilitate the relationship between GHRM and EP in the manufacturing industry of developing countries or not in Pakistan manufacturing companies. Results showed that GHRM significantly related with EP. Irani et al., (2022)' research aims to investigate whether green hotels' EP in Turkey might improve through staff environmental commitment and green process innovations. Results showed that GHRM practices significantly influence EP. And GHRM produce a higher level of EP when employee environmental commitment and green process innovations are deployed. There are studies that support this result as well as studies that do not support it as Elshaer et al. (2021)' study. In essence, the results underscore that companies that incorporate green practices into their human resource management strategies tend to exhibit higher levels of performance in environmental initiatives. Consequently, organizations that enhance their EP through the adoption of GHRM stands to reap various advantages, including improved reputation and brand value, competitive edge, cost savings, enhanced attractiveness to potential employees, better adherence to environmental regulations, long-term sustainability, increased opportunities for collaboration and partnerships, and improved risk management.

The results of the second and third hypotheses reveal that PROM and PROH play a partial mediating role in the relationship between GHRM and EP. PROM encompasses employees' proposals aimed at enhancing the organization's environmental practices, while PROH involves employees expressing concerns about work-related issues, events, or behaviors that could undermine the firm's environmental efforts. These findings are consistent with previous studies. For instance in their study Ari et al. (2020) aims to identify the indicators of GHRM for the hospitality and tourism industry. This study is important because of the linkage of GHRM to organizationally valued pro-environmental behaviors such as task-related pro-environmental behaviors, proactive pro-environmental behaviors, green recovery performance, and GVB through the mediating roles of work engagement and job satisfaction. In addition, this study highlights eight indicators of GHRM such as green selective staffing, green training, green empowerment, green rewards, green career opportunities, green teamwork, green work-life balance, and green participation in decision making. Aboramadan et al. (2022b)' study proposes a research model to investigate the impact of GHRM on nonprofit employees' green work-related outcomes, namely GVB, green knowledge-sharing behavior and green helping behavior. Results of this study indicated that GHRM is positively associated with GVB, green knowledge-sharing behavior and green helping behavior. Naz et al. (2021)' study is undertaken to examine that how GHRM practices heightens EP via employees' psychological green climate and pro-environmental behaviors. It also assesses the moderating role of environmental knowledge between pro-environmental behaviors and organizational EP in manufacturing firms located in China. The analytical findings revealed that the GHRM practices and corporate



environmental strategy are positively related to the psychological green climate that subsequently leads to generate pro-environmental behaviors in employees. Furthermore, the results shed light on the precise development of the corporate level environmental strategy to motivate employees for the creation of an eco-friendly workplace leading to optimizing EP. Further, results postulate that environmental knowledge moderates between pro-environmental behaviors and EP. Elshaer et al., (2021)' study aims to examine the direct effect of GHRM on EP in small tourism enterprises and the indirect effect through employee pro-environmental behaviors in small hotels and travel agencies operating in Egypt. Result of this study showed that there was an indirect, positive, and significant effect of GHRM on EP through task related and proactive pro-environmental behaviors. This reflects the value and vital role of employee pro-environmental behaviors in the relationship between GHRM and EP. In their study Tabrizi et al. (2023) aims to test the interrelationships of GHRM, job embeddedness, PROM and PROH in restaurants operating in Northern Cyprus. The conclusion of their study showed that GHRM boosts employees' job embeddedness. Employees high on job embeddedness exhibit green promotive and prohibitive behaviors at elevated levels. Consequently, for companies aiming to enhance their EP through GHRM practices, it's crucial to heed both promotive and prohibitive voices voiced by their employees.

These findings underscore the significance of GVB, including both PROM and PROH, in directing HRM efforts toward achieving improved EP. By shedding light on the mediating role of GVB, this study contributes to the growing body of literature on sustainable business practices, emphasizing the importance of fostering an environment that encourages and values employees' GVB. The implications of these findings are pertinent to managers and policymakers seeking to maximize the positive environmental impact of HRM, particularly within organized industrial zone or analogous settings. Through elucidating the mediating role of GVB, this study provides insights that can inform strategic decisions aimed at concurrently achieving environmental and organizational excellence. Thus if companies want to get better EP results from GHRM, they need to focus more on GVB.

7. IMPLICATION AND LIMITATIONS

Nowadays, it is clearly seen in theoretical and practical applications that environmental approaches are increasingly being adopted especially GHRM. In addition, businesses need to give importance to EP because they have to comply with environmental protection laws and regulations in many countries and regions; they need to gain a positive reputation among environmentally conscious consumers; they can save money by reducing costs through environmental practices such as energy efficiency, waste reduction and more efficient use of resources; they can gain competitive advantage in some markets with environmentally friendly products and services; and they can have better relationships and cooperation opportunities with stakeholders through environmentally friendly practices. In this study, it is seen that GVB contributes to the effect of GHRM on EP. So this study establishes that PROM and PROH levels among employees in industrial zones are precursors to determining EP levels,



emphasizing the need for organizations to consider these variables in environmental management processes.

Suggestions to organized industrial zone companies are as follows:

- The effect of GHRM practices on EP should be examined separately.
- The research model for determining the mediating effect of GHRM practices should be examined separately.
- GVB of employees should be assessed within the scope of GHRM, and HR managers should pay attention to PROM and PROH levels during recruitment and performance evaluation processes.
- It highlights the importance of organizing training programs to improve PROM and PROH levels in the context of EP management.
- Overall, it suggests that focusing on green-focused HR management practices is crucial for EP management, in addition to product and process-oriented approaches.
- Suggestions to researchers are as follows:
- Researchers should focus on different mediating factors between GHRM and EP such as task-related or pro-environmental behaviors.
- Researchers should examine the most important GHRM practices while using GVB as a mediator.
- Researchers should examine the effect of GHRM on GVB while other factors mediating.
- The limitations of this research are as follows:
- The research was carried out in the sample of a province's organized industrial zone. Differences may be observed in the findings obtained in a different province's organized industrial zone. For this reason, the study has a sample area constraint
- The research was conducted at a time covering post-pandemic conditions. Differentiation can be observed in the data obtained under different conditions
- It is accepted that the sample area represents the universe

Research focuses on detecting the mediating effect. Relationships between variables can lead to various findings in various regression models.

References

- Abdeen, T. H., & Ahmed, N. H. S. (2019). Perceived financial sustainability of tourism enterprises: Do green human resource management practices really matter?. *Journal of Tourism and Hospitality Management*, 7(2), 173-185. <https://doi.org/10.15640/jthm.v7n2a15>
- Aboramadan, M., Crawford, J., Turkmenoglu, M. A., & Farao, F. (2022a). Green inclusive leadership and employee green behaviors in the hotel industry: Does perceived green organizational support matter?. *International Journal of Hospitality Management*, 107, 103330. <https://doi.org/10.1016/j.ijhm.2022.103330>



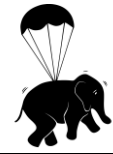
- Aboramadan, M., Kundi, Y. M., & Becker, A. (2022b). Green human resource management in nonprofit organizations: effects on employee green behavior and the role of perceived green organizational support. *Personnel Review*, 51(7), 1788-1806. <https://doi.org/10.1108/PR-02-2021-0078>
- Aftab, J., & Veneziani, M. (2023). How does green human resource management contribute to saving the environment? Evidence of emerging market manufacturing firms. *Business Strategy and the Environment*. <https://doi.org/10.1002/bse.3508>
- Aftab, J., Abid, N., Cucari, N., & Savastano, M. (2022). Green human resource management and environmental performance: The role of green innovation and environmental strategy in a developing country. *Business Strategy and the Environment*, 32(4), 1782-1798. <https://doi.org/10.1002/bse.3219>
- Aggarwal, P., & Agarwala, T. (2022). Relationship of green human resource management with environmental performance: Mediating effect of green organizational culture. *Benchmarking: An International Journal*, 30(7), 2351-2376. <https://doi.org/10.1108/BIJ-08-2021-0474>
- Al-Alawneh, R., Othman, M., & Zaid, A. A. (2023). Green HRM impact on environmental performance in higher education with mediating roles of management support and green culture. *International Journal of Organizational Analysis*. <https://doi.org/10.1108/IJOA-02-2023-3636>
- Ali, M. C., Islam, K. A., Chung, S. J., Zayed, N. M., & Afrin, M. (2020). A study of Green Human Resources Management (GHRM) and green creativity for human resources professionals. *International Journal of Business and Management Future*, 4(2), 57-67. <https://doi.org/10.46281/ijbmf.v4i2.857>
- Alshaabani, A., Naz, F., Magda, R., & Rudnák, I. (2021). Impact of perceived organizational support on OCB in the time of COVID-19 pandemic in Hungary: Employee engagement and affective commitment as mediators. *Sustainability*, 13(14), 7800. <https://doi.org/10.3390/su13147800>
- AOSB. (2023). *Aydın Organize Sanayi Bölgesi, Firmalarımız*. <https://aydinosb.org.tr/firmalar/> (Accessed: 30 August 2023).
- Ari, E., Karatepe, O. M., Rezapouraghdam, H., & Avci, T. (2020). A conceptual model for green human resource management: Indicators, differential pathways, and multiple pro-environmental outcomes. *Sustainability*, 12(17), 7089. <https://doi.org/10.3390/su12177089>
- Barlett, J. E., Kotrlik, J., & Higgins, C. (2001). Organizational research: Determining appropriate sample size in survey research appropriate sample size in survey research. *Information Technology, Learning, and Performance Journal*, 19(1), 43-50.
- 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), 1173-1182. <https://doi.org/10.1037/0022-3514.51.6.1173>



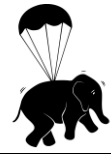
- Bhatti, S. H., Saleem, F., Murtaza, G., & Haq, T. U. (2022). Exploring the impact of green human resource management on environmental performance: The roles of perceived organizational support and innovative environmental behavior. *International Journal of Manpower*, 43(3), 742-762. <https://doi.org/10.1108/IJM-05-2020-0215>
- Bissing-Olson, M. J., Iyer, A., Fielding, K. S., & Zacher, H. (2013). Relationships between daily affect and pro-environmental behavior at work: The moderating role of pro-environmental attitude. *Journal of Organizational Behavior*, 34(2), 156-175. <https://doi.org/10.1002/job.1788>
- Bornstein, M. H., Jager, J., & Putnick, D. L. (2013). Sampling in developmental science: Situations, shortcomings, solutions, and standards. *Developmental Review*, 33(4), 357-370. <https://doi.org/10.1016/j.dr.2013.08.003>
- Brislin, R. W., Lonner, W., & Thorndike, R. M. (1973) *Cross-cultural research methods*. John Wiley & Sons.
- Burlea-Schiopoiu, A., Shoukat, M. H., Shah, S. A., Ahmad, M. S., & Mazilu, M. (2022). The sustainability of the tobacco industry in the framework of green human resources management. *Sustainability*, 14(9), 5671. <https://doi.org/10.3390/su14095671>
- Büyüköztürk, S., Cakmak, E. K., Akgun, O. E., Karadeniz, S., & Demirel, F. (2008). *Bilimsel araştırma yöntemleri*. Pegem Akademi.
- Carballo-Penela, A., Ruzo-Sanmartín, E., Álvarez-González, P., & Paillé, P. (2023). How do GHRM practices influence firms' economic performance? A meta-analytic investigation of the role of GSCM and environmental performance. *Journal of Business Research*, 165, 113984. <https://doi.org/10.1016/j.jbusres.2023.113984>
- Chand, P., & Tarei, P. K. (2021). Do the barriers of multi-tier sustainable supply chain interact? A multi-sector examination using resource-based theory and resource-dependence theory. *Journal of Purchasing and Supply Management*, 27(5), 100722. <https://doi.org/10.1016/j.pursup.2021.100722>
- Dubey, R., Gunasekaran, A., & Ali, S. S. (2015). Exploring the relationship between leadership, operational practices, institutional pressures and environmental performance: A framework for green supply chain. *International Journal of Production Economics*, 160, 120-132. <https://doi.org/10.1016/j.ijpe.2014.10.001>
- Dumont, J., Shen, J., & Deng, X. (2016). Effects of green HRM practices on employee workplace green behavior: The role of psychological green climate and employee green values: Effect of green HRM on employee workplace green behavior. *Human Resource Management*, 56(4), 613-627. <https://doi.org/10.1002/hrm.21792>
- Elshaer, I. A., Sobaih, A. E. E., Aliedan, M., & Azazz, A. M. (2021). The effect of green human resource management on environmental performance in small tourism enterprises: Mediating role of pro-environmental behaviors. *Sustainability*, 13(4), 1956. <https://doi.org/10.3390/su13041956>



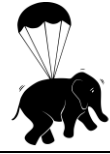
- Ercantan, O., & Eyupoglu, S. (2022). How do green human resource management practices encourage employees to engage in green behavior? Perceptions of university students as prospective employees. *Sustainability*, *14*(3), 1718. <https://doi.org/10.3390/su14031718>
- Faisal, S. (2023). Green human resource management—a synthesis. *Sustainability*, *15*(3), 2259. <https://doi.org/10.3390/su15032259>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39-50. <https://doi.org/10.2307/3151312>
- Gilal, F. G., Ashraf, Z., Gilal, N. G., Gilal, R. G., & Channa, N. A. (2019). Promoting environmental performance through green human resource management practices in higher education institutions: A moderated mediation model. *Corporate Social Responsibility and Environmental Management*, *26*(6), 1579-1590. <https://doi.org/10.1002/csr.1835>
- 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. <http://dx.doi.org/10.5267/j.msl.2021.2.010>
- Henri, J. F., & Journeault, M. (2008). Environmental performance indicators: An empirical study of Canadian manufacturing firms. *Journal of Environmental Management*, *87*(1), 165-176. <https://doi.org/10.1016/j.jenvman.2007.01.009>
- Irani, F., Kilic, H., & Adeshola, I. (2022). Impact of green human resource management practices on the environmental performance of green hotels. *Journal of Hospitality Marketing & Management*, *31*(5), 570-600. <https://doi.org/10.1080/19368623.2022.2022554>
- Jager, J., Putnick, D. L., & Bornstein, M. H. (2017). II. More than just convenient: The scientific merits of homogeneous convenience samples. *Monographs of the Society for Research in Child Development*, *82*(2), 13-30. <https://doi.org/10.1111/mono.12296>
- Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd edition). Guilford.
- Kodua, L. T., Xiao, Y., Adjei, N. O., Asante, D., Ofosu, B. O., & Amankona, D. (2022). Barriers to green human resources management (GHRM) implementation in developing countries. Evidence from Ghana. *Journal of Cleaner Production*, *340*, 130671. <https://doi.org/10.1016/j.jclepro.2022.130671>
- Larasati, S. (2018). *Manajemen sumber daya manusia*. Deepublish.
- LePine, J. A., & Van Dyne, L. (1998). Predicting voice behavior in work groups. *Journal of Applied Psychology*, *83*(6), 853-868. <https://doi.org/10.1037/0021-9010.83.6.853>



- Liang, J., Farh, C. I., & Farh, J. L. (2012). Psychological antecedents of promotive and prohibitive voice: A two-wave examination. *Academy of Management Journal*, 55(1), 71-92. <https://doi.org/10.5465/amj.2010.0176>
- Masri, H. A., & Jaaron, A. A. M. (2017). Assessing green human resources management practices in Palestinian manufacturing context: An empirical study. *Journal of Cleaner Production*, 143, 474-489. <https://doi.org/10.1016/j.jclepro.2016.12.087>
- Memon, S. B., Rasli, A., Dahri, A. S., & Hermilinda Abas, I. (2022). Importance of top management commitment to organizational citizenship behaviour towards the environment, green training and environmental performance in Pakistani industries. *Sustainability*, 14(17), 11059. <https://doi.org/10.3390/su141711059>
- Morrison, E. (2014). Employee Voice and silence. *Annual Review of Organizational Psychology and Organizational Behavior*, 1, 173-197. <https://doi.org/10.1146/annurev-orgpsych-031413-091328>
- Mowbray, P. K., Wilkinson, A., & Tse, H. H. (2015). An integrative review of employee voice: Identifying a common conceptualization and research agenda. *International Journal of Management Reviews*, 17(3), 382-400. <https://doi.org/10.1111/ijmr.12045>
- Naz, S., Jamshed, S., Nisar, Q. A., & Nasir, N. (2021). Green HRM, psychological green climate and pro-environmental behaviors: An efficacious drive towards environmental performance in China. *Current Psychology*, 42(2), 1346-1361. <https://doi.org/10.1007/s12144-021-01412-4>
- Nisar, Q. A., Haider, S., Ali, F., Jamshed, S., Ryu, K., & Gill, S. S. (2021). Green human resource management practices and environmental performance in Malaysian green hotels: The role of green intellectual capital and pro-environmental behavior. *Journal of Cleaner Production*, 311, 127504. <https://doi.org/10.1016/j.jclepro.2021.127504>
- Norton, T. A., Zacher, H., & Ashkanasy, N. M. (2015). Pro-environmental organizational culture and climate. J.L. Robertson, & J. Barling (Eds.), *The psychology of green organizations* (pp. 322-348) Oxford University Press.
- Nourafkan, N. J., Karatepe, O. M., & Rezapouraghdam, H. (2023). Corporate social responsibility, workplace spirituality and their effects on green promotive and prohibitive voice behaviours. *Current Issues in Tourism*, 1-17. <https://doi.org/10.1080/13683500.2023.2199451>
- Ogiemwonyi, O., Alam, M. N., & Alotaibi, H. S. (2023). Connecting green HRM practices to pro-environmental behavior through green human capital in the hospitality sector. *Business Strategy & Development*. <https://doi.org/10.1002/bsd2.297>
- Opatha, H. H. P. (2013). Green human resource management a simplified introduction. *Proceedings of the HR Dialogue*, 1(1), 11-21.
- Opatha, H., & Arulrajah, A. (2014). GHRM: Simplified general reflection. *International Business Research*, 7(8), 101-113. <https://doi.org/10.5539/ibr.v7n8p101>



- Palguna, I. G. R. (2021). Green human resource management practices in hospitality industry: A general review. *International Journal of Glocal Tourism*, 2(2), 75-84. <https://doi.org/10.58982/injogt.v2i2.48>
- Patel, J. D., Shah, R., & Trivedi, R. H. (2022). Effects of energy management practices on environmental performance of Indian small-and medium-sized enterprises. *Journal of Cleaner Production*, 333, 130170. <https://doi.org/10.1016/j.jclepro.2021.130170>
- Peerzadah, S. A., Mufti, S., & Nazir, N. A. (2018). Green human resource management: A review. *International Journal of Enhanced Research in Management & Computer Applications*, 7(3), 790-795.
- Rawashdeh, A. (2018). The impact of green human resource management on organizational environmental performance in Jordanian health service organizations. *Management Science Letters*, 8(10), 1049-1058. <https://doi.org/10.5267/j.msl.2018.7.006>
- Ren, S., Tang, G., & Jackson, S. E. (2021). Effects of Green HRM and CEO ethical leadership on organizations' environmental performance. *International Journal of Manpower*, 42(6), 961-983. <https://doi.org/10.1108/IJM-09-2019-0414>
- Roscoe, S., Subramanian, N., Jabbour, C. J., & Chong, T. (2019). Green human resource management and the enablers of green organisational culture: Enhancing a firm's environmental performance for sustainable development. *Business Strategy and the Environment*, 28(5), 737-749. <https://doi.org/10.1002/bse.2277>
- Sabokro, M., Masud, M. M., & Kayedian, A. (2021). The effect of green human resources management on corporate social responsibility, green psychological climate and employees' green behavior. *Journal of Cleaner Production*, 313, 127963. <https://doi.org/10.1016/j.jclepro.2021.127963>
- Sedgwick, P. (2013). Convenience sampling. *BMJ*, 347, f6304. <https://doi.org/10.1136/bmj.f6304>
- Sobaih, A. E. E., Hasanein, A., & Elshaer, I. (2020). Influences of green human resources management on environmental performance in small lodging enterprises: The role of green innovation. *Sustainability*, 12(24), 10371. <https://doi.org/10.3390/su122410371>
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics*. Pearson.
- Tabrizi, R. S., Karatepe, O. M., Rezapouraghdam, H., Rescalvo-Martin, E., & Enea, C. (2023). Green human resource management, job embeddedness and their effects on restaurant employees' green voice behaviors. *International Journal of Contemporary Hospitality Management*, 35(10), 3453-3480. <https://doi.org/10.1108/IJCHM-06-2022-0750>
- Tanova, C., & Bayighomog, S. W. (2022). Green human resource management in service industries: the construct, antecedents, consequences, and outlook. *The Service Industries Journal*, 42(5-6), 412-452. <https://doi.org/10.1080/02642069.2022.2045279>



- Thabeta, B. Z., Al-Nassar, S. I., Algailani, H. M., Mahmoud, A. K., Nasir, R., & Alrubaiy, A. A. (2023). Characterization of corrosion resistance of silver-hydroxyapatite (Ag-HA) bio-nanocomposite coating. *Diyala Journal of Engineering Sciences*, 16(1), 27-33. <https://doi.org/10.24237/djes.2023.16103>
- Treize, M., & Richardson, M. J. (2023). Risky business: Understanding the green voice behaviour of Australian professionals. *International Journal of Ethics and Systems*. <https://doi.org/10.1108/IJOES-12-2022-0305>
- Tyas, T. A., & Puspa T. (2023). Penerapan green human resources management pada organisasi pendidikan vokasi abc dan pengaruhnya terhadap green voice behavior. *Jurnal Ekonomi Trisakti*, 3(1), 505-518. <https://doi.org/10.25105/jet.v3i1.15586>
- Ünüvar, B., & Demirtaş, Ö. (2021). Etik liderlik davranışlarının dile getirme davranışı aracılığıyla örgütsel adalet algısına etkisi: Sağlık çalışanları üzerine bir araştırma. *Uluslararası Sağlık Yönetimi ve Stratejileri Araştırma Dergisi*, 7(1), 117-129.
- Van Dyne, L., & LePine, J. A. (1998). Helping and voice extra-role behaviors: Evidence of construct and predictive validity. *Academy of Management Journal*, 41(1), 108-119. <https://doi.org/10.5465/256902>
- Yusoff, Y. M., Nejati, M., Kee, D. M. H., & Amran, A. (2020). Linking green human resource management practices to environmental performance in hotel industry. *Global Business Review*, 21(3), 663-680. <https://doi.org/10.1177/0972150918779294>
- Zacher, H., & Rudolph, C. W. (2022). Researching employee experiences and behavior in times of crisis: Theoretical and methodological considerations and implications for human resource management. *German Journal of Human Resource Management*, 36(1), 6-31. <https://doi.org/10.1177/23970022211058812>

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