

**VIETNAM NATIONAL UNIVERSITY HO CHI MINH CITY  
INTERNATIONAL UNIVERSITY**



**GREEN HUMAN RESOURCE MANAGEMENT PRACTICES,  
GREEN INNOVATION AND SUSTAINABLE PERFORMANCE:  
A CASE OF LUXURIOUS ACCOMMODATIONS IN VIETNAM**

**NGUYEN QUOC LOC  
PBAIU20001**

A Summary of Dissertation  
Doctor of Philosophy  
in Business Administration

**SUPERVISOR:  
Assoc. Prof. Dr. Nguyen Nhu Ty**

Ho Chi Minh city – April, 2024

**VIETNAM NATIONAL UNIVERSITY HO CHI MINH CITY  
INTERNATIONAL UNIVERSITY**



**GREEN HUMAN RESOURCE MANAGEMENT PRACTICES,  
GREEN INNOVATION AND SUSTAINABLE PERFORMANCE:  
A CASE OF LUXURIOUS ACCOMMODATIONS IN VIETNAM**

**NGUYEN QUOC LOC  
PBAIU20001**

A Summary of Dissertation  
Doctor of Philosophy  
in Business Administration

**SUPERVISOR:  
Assoc. Prof. Dr. Nguyen Nhu Ty**

Ho Chi Minh city – April, 2024

## RELEVANT PUBLICATIONS OF THIS DISSERTATION

- Nguyen, Q. L., Nguyen, N. T., & Hoang, M. D. (2022). The influence of employees' perceived work performance on the pro-environmental behaviours: the role of organisational identification in the Vietnamese hospitality industry. *Journal for Global Business Advancement*, 15(1), 81-101. **(Scopus -Q3)**
- Khuong, M. N., Loc, N. Q., Phuong, N. N. D., & Ty, N. N. (2023). Strategist's cognitive perspectives, innovation, and competitive advantage: An empirical study in Vietnam. *Zbornik radova Ekonomskog fakulteta u Rijeci: časopis za ekonomsku teoriju i praksu*, 41(1), 299-328. **(Scopus -Q3)**
- Quoc-Loc Nguyen, Nhu-Ty Nguyen, Ngoc-Nhu Ta, Tuyet-Anh Nguyen, Thanh-Trieu Nguyen. (2024). Green HRM Practices Foster Environmental Performance: The Role Of Environmental Knowledge And Pro-Environmental Behaviors. *International Journal of Work Innovation*, Vol. ahead-of-print No. ahead-of-print. **(Scopus -Q3)**
- Quoc-Loc Nguyen, Nhu-Ty Nguyen, Phi-Phung Tran. Towards Sustainable Human Resource Management: A Bibliometric Analysis of Green HRM Practices in the Hospitality Industry. *Sage Open*. Under review round 3. **(SSCI, Scopus -Q2)**
- Quoc-Loc Nguyen, Nhu-Ty Nguyen, Bui-Minh-Tu Nguyen, Thi-Nhu-Ngoc Nguyen. How Do Green HRM Practices Affect Environmental Performance: The Role Of Green Innovation, And Environmental Strategies.. *Zbornik radova Ekonomskog fakulteta u Rijeci: časopis za ekonomsku teoriju i praksu*, Under minor review. **(Scopus -Q3)**

## TABLE OF CONTENTS

<b>RELEVANT PUBLICATIONS OF THIS DISSERTATION .....</b>	<b>iii</b>
<b>LIST OF ABBREVIATIONS .....</b>	<b>vi</b>
<b>LIST OF TABLE AND FIGURE.....</b>	<b>vii</b>
<b>ABSTRACT .....</b>	<b>viii</b>
<b>CHAPTER 1. INTRODUCTION.....</b>	<b>10</b>
1.1. Research background.....	10
1.2. Research problems and gaps.....	12
1.3. Research objectives .....	13
1.4. Research questions .....	14
1.5. Contribution of the research .....	14
1.5.1. Theoretical contribution .....	14
1.5.2. Managerial contribution .....	15
<b>CHAPTER 2: LITERATURE REVIEW .....</b>	<b>16</b>
2.1. Theoretical background .....	16
2.1.1. Resource-based view theory (RBV).....	16
2.1.2. Social identity theory (SIT).....	16
2.1.3. Ability-Motivation-Opportunity theory (AMO).....	17
2.2. Hypotheses Development .....	18
2.2.1. GHRM practices and green innovation .....	18
2.2.2. Green innovation and sustainable performance.....	19
2.2.3. GHRM practices and sustainable performance .....	20
2.2.4. The mediating role of green innovation between green HRM practices and sustainable performance .....	22
2.3. Research model.....	23
<b>CHAPTER 3. METHODOLOGY.....</b>	<b>24</b>
3.1. Mixed methods research design .....	24
3.2. Qualitative research design.....	24
3.2.1. Sampling Strategy.....	25
3.2.2. Interview Protocol Development.....	25
3.2.3 Data Collection and Analysis .....	26
3.3. Quantitative research design.....	26
3.3.1. Sampling design .....	26
3.3.2. Sample size .....	27
3.3.3. Measurement scale .....	27
3.3.4. Pilot test .....	33
3.3.5. Data analysis.....	34

<b>CHAPTER 4. DATA ANALYSIS AND RESULTS .....</b>	<b>35</b>
4.1 Qualitative results .....	35
4.1.1 Respondent profiles and analysis processes .....	35
4.1.2. Findings .....	36
4.1.3. Discussion.....	37
4.2. Quantitative Results.....	39
4.2.1. Evaluating the measurement models .....	39
4.2.1.1. Reliability test.....	39
4.2.1.2. Validity test.....	42
4.2.2. Evaluating the structural models .....	43
4.2.2.1. Direct effects testing .....	44
4.2.2.2. Mediation Testing.....	50
4.3. Discussion.....	53
4.3.1. The impact of green HRM practices on green innovation.....	53
4.3.2. The impact of green innovation on sustainable performance.....	54
4.3.3. The impact of green HRM practices on sustainable performance.....	55
4.3.4. The mediating role of green innovation on the relationship between green HRM practices and sustainable performance .....	56
<b>CHAPTER 5: CONCLUSIONS AND IMPLICATIONS .....</b>	<b>58</b>
5.1 Conclusions .....	58
5.2. Implications .....	59
5.2.1. Theoretical implications .....	59
5.2.2. Managerial implication.....	60
5.3. Limitations and future research directions .....	62
<b>REFERENCES .....</b>	<b>64</b>

## LIST OF ABBREVIATIONS

AMO	Ability-Motivation-Opportunity
AVE	Average Variance Extracted
CR	Composite Reliability
CSR	Corporate social responsibility
CSR	Corporate Social Responsibility
EFA	Exploratory Factor Analysis
GDM	Green discipline management
GHRM	Green human resource management
GHRMps	Green human resource management practices
GHS	Green health and safety
GIE	Green involvement and empowerment
GJD	Green job description and analysis
GPM	Green performance management
GPR	Green pay and reward
GRS	Green recruitment and selection
GSO	General Statistics Office of Vietnam
GTD	Green training and development,
HRM	Human resource management
HTMT	Heterotrait-Monotrait Ratio
PLS-SEM	Partial Least Squares Structural Equation Modelling
RBV	Resource-based view theory
RQ	Research question
SEM	Structural Equation Modelling
SIT	Social identity theory
TBL	Triple bottom line
VIF	Variance Inflation Factor
VNAT	Vietnam National Administration of Tourism

## LIST OF TABLE AND FIGURE

Figure 2.1. Proposed Research model .....	23
Table 3.1. Descriptions of measurement scales.....	27
Table 4.1. Summary of Participants in Qualitative Study .....	35
Table 4.2. Interview Questions and expected esults.....	36
Table 4.3. Factor Loading Indicators.....	39
Table 4.4. Reliability and validity .....	41
Table 4.5. Discriminant validity-Formell and Lacker Criterion.....	43
Table 4.6. Direct Effects .....	44
Figure 4.1. PLS-SEM model for direct effects testing .....	50
Table 4.7. Indirect Effects on Sustainable Performance .....	51
Figure 4.3. PLS-SEM model for indirect effects testing – stage 2.....	53

## ABSTRACT

Preserving the ecosystem has become the foremost concern due to the alarming escalation of environmental pollution levels, reaching a critical point that poses a catastrophic threat to our planet. This study has introduced a paradigm model to examine how green human resources management practices, green innovation, and sustainable performance impact each other and proven it to be appropriate in Vietnam's hospitality industry. The research employed a mixed-method approach, clearly outlining the collection and analysis of both qualitative and quantitative data. In-depth interviews were conducted to explore various dimensions of green human resources management practices within 4-star and 5-star hotels and resort. Subsequently, PLS-SEM statistical techniques were employed, utilizing responses from the survey questionnaire to test the formulated hypotheses.

This study confirmed the existing of less common green human resources management practices to extend in order to enhance green innovation, sustainable performance such as green job description and analysis, green performance management, green health and safety, green involvement and empowerment, green discipline management. Interestingly, this study presented the strong significant of green discipline management on green innovation and sustainable performance in Vietnam context. Next, this study will be a synthesis study that proves the main relationships green human resources management practices and not only environmental performance but also economic performance and social performance. By integrating the concepts of AMO theory (abilities, motivations, and opportunities), green innovation, and sustainable performance, this study developed an overarching and unique conceptual indicating the mediating role of green innovation. The insights into how hospitality establishments in Vietnam cultivate sustainable performance through green human resources management practices and green innovation mark an initial stride toward establishing cross-regional and cross-industry comparisons, offering potential avenues for future research.

Based on the research findings presented earlier, there are several practical implications that managers in the hotel management and business sectors can derive. Notably, the study reveals that green innovation emerges as the variable with the most robust and favorable impact on sustainable performance. This study underscores the benefits of green innovation within the hospitality industry, underscoring its dual advantages, encompassing both financial and environmental benefits.

**Keywords:** Green HRM practices, green job description and analysis, green performance management, green health and safety, green involvement and empowerment, green discipline management, green innovation, green product innovation, green process



innovation, sustainable performance, economic performance, environmental performance  
social performance.

## CHAPTER 1. INTRODUCTION

### 1.1. Research background

In recent times, "Sustainability performance" has emerged as a compelling subject, capturing the attention of hotel managers and tourists alike, especially with the increasing concerns about global warming leading to extreme weather events and the growing emphasis on environmental conservation worldwide (Adubor et al., 2022; Almemari, 2021; Imran et al., 2023; Longoni et al., 2018). Protecting the ecosystem is now the main priority because the levels of environmental pollution have escalated to a point that can be described as catastrophic for our planet. The public's awareness of "greening" the environment is unwarranted given the rise in climate change, clearing of forests, and environmental contamination (of the land, water, and air). Environmental protection is an important issue and nearly every industry has applied measures to preserve the natural environment. According Melnyk et al. (2003), most manufacturing organizations have improved their operational efficiency by eliminating waste generated throughout the time of creating and manufacturing products.

The resource-based view (RBV) theory underscores that challenges linked to attaining environmentally friendly objectives can be resolved by integrating environmental management with Green Human Resource Management (GHRM) practices (Sarkis et al., 2010). Enterprises are increasingly adopting green human resource management (GHRM) processes and activities of growing global environmental concerns, which in turn enables them to become both competitive and green performance (Afsar & Umrani, 2020; Dahiya, 2020; Kautish & Sharma, 2020). According to the AMO theory (Appelbaum et al., 2000), GHRM practices play a role in enhancing organizational performance by bolstering individuals' abilities (e.g., through training), motivations (e.g., utilizing a performance management system), and opportunities (e.g., engaging a suggestion system). Additionally, the AMO theory is utilized to explore the link between HRM and performance, positing that employees' abilities, motivations, and opportunities collectively contribute to organizational success. This integrated perspective elucidates the mechanisms through which leaders and strategic HRM practices foster firm performance. In the quest to make the environment green, scholars such as Renwick et al. (2016) have proposed that human resource management (HRM) acts as a critical part. Furthermore, increased eco-friendly perception has prompted HRM to take the eco-friendly side of HRM, locally known as GHRM. GHRM refers to HRM approaches that improve good long-term results (Renwick et al., 2016).

At present, the concept of "Going green" transcends mere trendiness in the hotel industry; it has evolved into a genuine lifestyle. Recognizing the significant environmental

impact hotels can wield, owners now acknowledge the necessity of adopting green practices (Fukey & Issac, 2014). Their perspective has shifted from implementing green measures solely for cost-saving purposes, such as water conservation, as numerous research papers have highlighted the positive correlation between water management and reductions in operational costs, to understanding that conserving resources like water serves a greater purpose for future generations. Put differently, hotel owners and investors are increasingly prioritizing environmental sustainability, actively and innovatively seeking ways to integrate green practices into their establishments. Green endeavors in the service industry, such as hotels, include decreasing waste, lowering energy sources and water sources in their operations, and educating customers and staffs (Bohdanowicz et al., 2011; Rahman et al., 2012). According to Booking.com (2022) report on sustainable travel, as many as 73 percent of global travelers aspire to experience environmentally-friendly accommodations at least once in the future. The trend of eco-conscious tourism is on the rise, as evidenced by a Booking.com (2022) report which found that 70% of global travelers, while not actively seeking out eco-friendly accommodations, are still open to booking them if they're aware of their environmental credentials. According to Vietnam National Administration of Tourism (VNAT, 2019), Hilton set operational goals, regulations, and eco-friendly initiatives to protect the environment, as well as reporting tools to control its progress. Therefore, from 2009 to 2014, Hilton Worldwide lowered its overall water consumption by 14.1 % and its energy consumption by 14.5 %. Another hotel organization, Marriott International has advocated for environmental preservation programs

Green practices in Vietnam, as well as globally, have expanded beyond conventional measures, reflecting shifting attitudes and a heightened ecological consciousness. Hotels in Vietnam are progressively embracing green practices tailored to various stages, from the conception of environmentally friendly hotel construction to the utilization of sustainable materials and resource conservation during operations. Notably, hotels already implementing green practices should persist in their efforts, as this aligns with a growing long-term trend that increasingly piques guests' interest and could influence their choice of accommodation. Moreover, these initiatives offer financial benefits in the long run by reducing operational costs such as electricity, water, and materials. Additionally, managers in Vietnam recognize the pivotal role of collective effort among staff members in achieving sustainability goals within the hotel industry. I firmly believe that every employee across all departments holds the key to embracing green practices. Consequently, they foster a green culture within their establishments to cultivate environmental consciousness among all staff members and motivate them to integrate sustainable practices into their daily routines. However, frequent turnover

among hotel staff poses challenges, as it requires continuous and potentially costly training efforts to instill environmental habits and awareness in new hires.

## **1.2. Research problems and gaps**

Prior research has been conducted at whether GHRM practices based on the AMO theory have a favorable effect on innovation to environment (Antonioli et al., 2013), and paradoxical studies has been used for looking into how HRM practices affects sustainable environment (Guerci & Carollo, 2016). Having said that, those related research only focused on some prevalence of green practices such as green training, green recruitment, green pay and reward (Mousa & Othman, 2020; Pham et al., 2020). There still have more gaps of less common green practices to extend in order to enhance sustainable performance such as green job description and analysis, green performance management, green health and safety, green discipline management, etc.

So far, scholars have produced a variety of research papers examining different facets of Green Human Resource Management (GHRM) and its impact on green innovation. These include theoretical inquiries aimed at enhancing the understanding of existing GHRM literature (Ren et al., 2018; Renwick et al., 2016), along with empirical investigations delving into the contributions of GHRM to environmental performance (Guerci & Carollo, 2016; Masri & Jaaron, 2017), financial performance (Longoni et al., 2018), and sustainable performance (Malik et al., 2021; Mousa & Othman, 2020).

Furthermore, there has been limited comprehensive exploration by researchers into the implementation of GHRM practices within the hospitality industry in Vietnam. Indeed, the available literature on GHRM in this context is scarce; for instance, Pham et al. (2020) conducted one such study. However, this article primarily focused on elucidating the connections between green training, green performance, and green involvement in corporate environmental performance, rather than delving into the role of green innovation.

In the green context, however, there hasn't been enough analysis conducted on the connection of GHRM practices, green innovation, and sustainability in hospitality industry. We fill gaps in the existing literature by looking in what way GHRM practices influence green innovation and sustainable performance.

In this research, author based on AMO theory try to investigate a wide range of GHRM practices in terms of green job description and analysis (GJD), Green recruitment and selection (GRS), green training and development (GTD), green performance management (GPM), green pay and reward (GPR), green involvement and empowerment (GIE), green health and safety (GHS), green discipline management (GDM) and other GHRM practices can improve

employees' ability, motivation, and opportunities for enhancing hotel sustainable performance, which in turn affects the hotel's green products or the hotel's procedure innovation. As a result, we chose green innovation as an important mediating role for exploring the relation between GHRM practices and hotel's sustainable performance. Top management concerns have a favorable impact on the speed with which companies begin environmental operations when implementing GHRM principles (Eiadat et al., 2008). Therefore, given the relevance of GHRM, the question of whether it can have an impact on green innovation is an important research gap.

### **1.3. Research objectives**

The main objective of this study is to scrutinize the impacts of green human resource management practices and green innovation on promoting sustainable performance within upscale accommodations in Vietnam. By examining the reciprocal influences among green HRM practices, green innovation, and sustainable performance, the researcher aims to construct a comprehensive model elucidating both direct and indirect relationships among these variables. This model is intended to offer practical insights for management, formulate organizational development policies for the hospitality industry in Vietnam, and provide guidance for future research endeavors. The outcomes of this investigation enhance our comprehension of the mechanisms by which GHRM practices shape green innovation and sustainability performance in the hospitality sector. In summary, the study sets forth the following objectives:

- First, to explore and achieve overall understanding about GHRM practices in luxurious accommodations in Vietnam.
- Second, to examine the impact of GHRM practices on green innovation of hospitality industry in Vietnam.
- Third, to investigate the relationship between green innovation and sustainable performance of hospitality industry in Vietnam.
- Fourth, to explore the connection between GHRM practices and sustainable performance of hospitality industry in Vietnam.
- Fifth, to examine the mediating role of effects of green innovation on the relationship between GHRM practices and sustainable performance of hospitality industry in Vietnam.
- Lastly, to provide recommendation, improvement, and development suggestion for sustainable performance based on the purpose to experiencing the samples of luxurious accommodations in Vietnam.

## **1.4. Research questions**

In pursuit of the research goals, this investigation seeks to address the subsequent research questions (RQ).

- RQ1: How do luxurious accommodations in Vietnam perform GHRM practices?
- RQ2: How does GHRM practices have an impact on green innovation of hospitality industry in Vietnam?
- RQ3: How does green innovation affect sustainable performance of hospitality industry in Vietnam?
- RQ4: How does GHRM practices influence sustainable performance of hospitality industry in Vietnam?
- RQ5: How does green innovation mediate the relationship between GHRM practices and sustainable performance of hospitality industry in Vietnam.
- RQ6: What measures and methods to improve sustainable performance of luxurious accommodations in Vietnam?

## **1.5. Contribution of the research**

### ***1.5.1. Theoretical contribution***

This study makes significant efforts to the current scientific world. First, the author examines into the green innovation results of GHRM practices, which haven't gotten enough attention. As a result, the author extends and enhances the upgrade practices in human resources departments that can help to improve management challenges in luxury accommodations by providing a fresh awareness that helps us more comprehend the view and its effects. Second, few papers examine green innovation when an organization combines firm's strategies and practices, which may be essential in those matters. As a consequence, this study contributes to the existing of research on green innovation by expanding its possible antecedents. Next, resource-based view theory, social exchange theory, social identity theory authors analyze the mediated role of green innovation on the relationship between GHRM practices and sustainable performance, which is an essential but understudied method.

Secondly, despite numerous studies on green HRM practices, the exploration within Vietnam's hospitality sector is limited, as highlighted by Pham et al. (2019) and Pham et al. (2020). This study has the potential to deepen our comprehension of effective green HRM practices and green innovation specifically within the management levels of upscale accommodations in Vietnam, aiming to promote sustainable performance encompassing economic, environmental, and social dimensions in their enterprises. Furthermore, through the

integration of various theories, this research anticipates contributing to a holistic understanding of green HRM practices that facilitate green innovation and sustainable performance.

Thirdly, numerous prior studies have demonstrated the efficacy of implementing green human resource management practices in fostering environmental conservation within companies, but there have not been many in-depth studies on the other aspects of sustainable performance. Therefore, this study delves deeply into enhancing three aspects of sustainable performance (economic performance, environmental performance, social performance) of a "green" hotel by establishing robust scientific and theoretical foundations, building new models, and adjusting questionnaires, and also proving hypotheses with actual data. This study will be a synthesis study that proves the main relationships of green HRM practices, green innovation, and sustainable performance so that the following studies can refer to and extract guides.

### ***1.5.2. Managerial contribution***

When developing a research model to illustrate the influence of Green Human Resource Management (GHRM) practices on sustainable performance through green innovation, the study pursues three key objectives. Initially, the author suggests that GHRM exerts a positive influence on green innovation from the perspective of Human Resource Management (HRM), suggesting that GHRM practices can assist a company in developing environmentally friendly products or processes. Secondly, GHRM fosters sustainability, thereby contributing to the success of the company's green initiatives. The author also examines the role of green innovation in moderating the relationship between GHRM practices and sustainable development. In summary, the author proposes a novel approach to how GHRM practices can enhance both green innovation and sustainable development.

## CHAPTER 2: LITERATURE REVIEW

### 2.1. Theoretical background

#### 2.1.1. *Resource-based view theory (RBV)*

The initial recognition of the significant influence exerted by resources specific to a company can be traced back to the pioneering contributions of Chamberlin (1933) in "The Theory of Monopolistic Competition" and Robinson (1933) in "The Economics of Imperfect Competition." In these seminal works, these economists underscored the diversity among firms, highlighting that the distinctive assets and capabilities of companies play a pivotal role in shaping imperfect competition and attaining exceptional performance. The theory of the resource-based view was later refined by Penrose (1959) in his publication titled "The Theory of Growth of the Firm" and subsequently surfaced in Wernerfelt (1984) study which depicts an organization as a distinctive combination of resources and abilities which combine to form competences.

The proposed research uses the RBV to look into the impact of GHRM practices and green innovation on long-term accommodations' performance in Vietnam. According to the Resource-Based View (RBV), companies achieve enduring competitive advantages by cultivating qualities or resources that are valuable, rare, unique, not easily replaceable, and difficult to transfer – as highlighted in studies by Barney et al. (2010), Clemens and Bakstran (2010) and (Priem & Butler, 2001). The RBV proposition posits that an organization's capabilities and resources are primary factors determining its performance and competitive edge in the market (Xie et al., 2019). The competencies of a firm are a critical prerequisite (Hitt et al., 2011) and are contingent on the operational context. Given external and internal pressures to implement and adapt environmentally friendly practices, businesses are increasingly compelled to develop environmentally conscious organizational capabilities. Amit and Schoemaker (1993) posit that if an organization possesses vital, hard-to-replicate resources that are in short supply and difficult for rivals to substitute with alternatives delivering comparable results, it can maintain a competitive advantage and superior performance. When applying the Resource-Based View (RBV) to the relationship between HRM and performance, leadership and employees are viewed as critical resources, on par with other resources held by the firm.

#### 2.1.2. *Social identity theory (SIT)*

The social identity theory (SIT) was originally introduced by Tajfel et al. (1979). This theory holds that people often go beyond their personal identities to develop social identities (Bhattacharya & Sen, 2004). Social identity is an individual's sense of belonging to a certain



group that has something in common such as nationality, interests, feelings, characteristics, religion and it is valid for the individual themselves (Tajfel et al., 1979). SIT theory explains that people always have a need to prove their belonging to some group and try to distinguish themselves individually from others with the aim of helping them to feel better than others (Tajfel et al., 1979).

Social identity theory can be used to explain the impact of GHRM on employee behaviour. This theory states that employees tend to identify with the organization where they work, so they are willing to put in time and effort to ensure the completion of the organization's tasks and goals. Since improving the efficiency of the hotel's environmental protection is the mission, goal, and responsibility of the hotel, when employees have determined to devote themselves and work, employees and the hotel can also have attachments and empathy for each other regarding environmental protection. So, there will be more commitment and motivation for employees to participate in GHRM practice at the hotel. Thus, it can be concluded that the SIT theory also has a profound impact on employees' green behaviour.

### ***2.1.3. Ability-Motivation-Opportunity theory (AMO)***

The Ability-Motivation-Opportunity (AMO), as presented by (Appelbaum et al., 2000), is commonly employed in research on Human Resource Management (HRM) performance (Bos-Nehles et al., 2013). According to the AMO theory, HRM practices play a role in enhancing organizational performance by bolstering individuals' abilities (e.g., through training), motivations (e.g., utilizing a performance management system), and opportunities (e.g., engaging a suggestion system). Additionally, the AMO theory is utilized to explore the link between HRM and performance, positing that employees' abilities, motivations, and opportunities collectively contribute to organizational success. This integrated perspective elucidates the mechanisms through which leaders and strategic HRM practices foster firm performance (Appelbaum et al., 2000).

In this research, the application of the AMO theory takes a different approach by not solely focusing on employees' job attitudes and behaviours resulting from the implementation of HRM practices (Appelbaum et al., 2000; Guest, 2011). Instead, the study anticipates that the ability, motivation, and opportunity of production managers will serve as predictors for the link between HRM, innovation, and performance. Building on the AMO theory, the author argues that GHRM practices within an organization aim to attract, motivate, reward, and sustain employee behaviours aligned with environmental management goals. This is achieved through the promotion of green process and product innovation to enhance overall green firm performance (Boselie et al., 2005). Additionally, employing the AMO theory (Appelbaum et

al., 2000), GHRM provides firms with a comprehensive framework through green recruitment and selection, training and development, performance-based rewards, and employee empowerment practices. This holistic approach is designed to attract, train, motivate, and retain green talent, contributing to sustainable performance through continuous innovations in processes, products, and services (Gerhart, 2005).

## **2.2. Hypotheses Development**

### **2.2.1. GHRM practices and green innovation**

Firms must proactively adopt methods to deal with environmental difficulties as a result of environmental laws and policies (Chan, 2005). GHRM is becoming more widely acknowledged as an important technique for understanding green practices that improve sustainable performance and promote long-term growth (Ren et al., 2018). As a result, numerous articles have looked in what way GHRM influences environmental performance, which can lead to competitive benefits for businesses conforming to Guerci and Carollo (2016). According to O'Donohue and Torugsa (2016), GHRM has a beneficial impact on financial performance. Few research, however, have looked into the relationship between GHRM and green innovation.

Green innovation is defined as a type of innovation that reduces environmental consequences while still accomplishing a company's environmental objectives and providing the benefits of environment (Lin et al., 2014). HRM has been shown in previous research to improve employees' knowledge, skills, and abilities, hence promoting the hotel's product innovation and hotel's procedure innovation (Seeck & Diehl, 2017; Zhou et al., 2013). We propose that GHRM has a remarkable impact on green innovation based on this argument. First, green recruitment enhances the firm's EM attraction, because recruiting people who are more environmentally conscious leads to their participating in more eco-friendly activities (Backhaus et al., 2002). In line with Renwick et al. (2013), employees with a high level of environmental skill and sensitivity can come up with more helpful and unique environmental management ideas, boosting the company's green innovation. To produce and sustain green innovation, businesses should hire individuals that actively participate in environmental activities.

The HRM research reveals that HRM practices may push a beneficial impact on the innovation of products or procedures (Chowhan, 2016; Verburg et al., 2007), implying that combining HRM practices may have a higher impact on innovation than doing individually (Shipton et al., 2005). Therefore, we take into account all three elements of GHRM activities that lead to green innovation. GHRM approaches, according to the reasoning given above, can improve employee ability, motivation, and opportunities, consequently strengthening their

unique expertise of green product or process innovation. As a result, the following hypotheses are proposed:

*H1a, b, c, d, e, f, g, h: GHRM practices, including Green job description and analysis (H1a), Green recruitment and selection (H1b), Green training and development (H1c), Green performance management (H1d), Green pay and reward (H1e), Green health and safety (H1f), Green involvement and empowerment (H1g), Green discipline management (H1h) positively affects green product innovation.*

*H2a, b, c, d, e, f, g, h: GHRM practices, including Green job description and analysis (H2a), Green recruitment and selection (H2b), Green training and development (H2c), Green performance management (H2d), Green pay and reward (H2e), Green health and safety (H2f), Green involvement and empowerment (H2g), Green discipline management (H2h) positively affects green process innovation.*

### **2.2.2. Green innovation and sustainable performance**

In the Triple Bottom Line paradigm, sustainable performance is described as the intersection of the three main aspects of economics, environment, and society (Asadi et al., 2017; Elkington, 1997). Those three aspects were explored in the current study's selected firms since firms cannot build truly innovating sustainability without the important operational characteristics, which are required for each business's long-term viability. Furthermore, as contrasted to the other two dimensions of industrial sustainability, industries frequently prioritize the economic element. Following with Salzman et al. (2005), Haffar and Searcy (2017), the balance between financial and eco-friendly goals on the one hand, and financial and societal goals on the other, has been primarily determined. As a result, the social, environmental, and economic aspects of sustainable company performance were investigated.

As a key motivator, green innovation can also result in economic advancement. To aid their future economic success, some companies are starting to build the renewable technology's future generation. Solar, wind, and other kinds of sustainable energy have been invested in believing that these sources of energy have enough possibility to quickly replace sources that could not be renewable (Hart & Milstein, 2003). It is crucial to highlight that green innovation methods can have a remarkable impact on organizational costs.

Besides, green innovation methods will improve the organization's image and competitive advantages while also improving performance (Sezen & Çankaya, 2013). Furthermore, Zhu and Sarkis (2004) stated that green innovation reduces negative impacts to environment whilst improving an organization's economic and social performance through

lowered waste and expenditures. As a result, green innovation has been shown to have a favourable association with the successful of economic (Chang, 2011), prompting the hypothesis as below:

*H3a: Green product innovation positively affects economic performance.*

*H4a: Green process innovation positively affects economic performance.*

Besides, implementing the related programmes will support many industries in lowering greenhouse gas emissions as well as other hazardous and solid waste (Daily et al., 2012). Therefore, most enterprises in the accommodation field have embraced these programs in order to attain the necessary firm's green output, as they have more awareness to environment (Mensah, 2006). Connected to this phenomenon, the hospitality industry especially in hotel sector should focus on attracting more awareness related environmental (Kang et al., 2010), because they can provide a huge benefit such as better organizing business procedures, lowering operational costs, improving the company's image, and enhancing competitiveness (Quazi, 1999). According to previous research, improving production processes combined with increased productivity will result in additional potential to improve environmental performance (Montabon et al., 2007). As a result, we propose the following hypothesis:

*H3b: Green product innovation positively affects environmental performance.*

*H4b: Green process innovation positively affects environmental performance.*

Furthermore, it is clearly that corporations would benefit from addressing environmental challenges, which can include a grater employees' satisfaction and higher employees' devotion, improved the well relationship between firm's departments, and increased brand equity (Khurshid & Darzi, 2016). It would be also more benefits, which include the increased employee understanding of community-based duties and the capacity to employ and maintain qualified personnel (Mehta & Chugan, 2015). According to Wagner (2013), organizations who invest in social accountability can gain greater benefits from satisfied customers and employees, outstanding employee recruitment, and the innovating of products, all of which contribute to the consolidation of their social performance. As a result, we suggest the following hypothesis:

*H3c: Green product innovation positively impacts on social performance.*

*H4c: Green process innovation positively impacts on social performance.*

### **2.2.3. GHRM practices and sustainable performance**

Green human resources necessitated complete participation from all members of the organization in order for it to become more environmentally friendly (Wagner, 2013). Green initiatives should be practiced by all employees at their workplace on a regular basis. Green practices should also be included into human resource procedures such as recruitment, training, and pay, among others (Wood et al., 2014). Through these methods, a beneficial outcome in terms of building green human resources should be obtained (Rani & Mishra, 2014). According to Jadhav et al. (2013), GHRM practices act as the glue that holds multiple practices together as a synchronous unit. Huge joint benefits for both the company and the employee's "bundles" should refer to a series of consistent and internally dependable HR practices that are related to one another. Tadić and Pivac (2014) found that incorporating techniques had a bigger and more immediate impact on a company's competitiveness and organizational performance. As a result, GJD, GRS, GTD, GPM, GPR, GHS, GIE and GDM are included in this study's GHRM practices.

Wagner (2013) has found that an organization's investment in social obligations will reap real benefits such as improved consumer perception, employee satisfaction, the ability to recruit exceptional people, and greater innovativeness. Without a doubt, these benefits will improve the organization's performance. This is consistent with Rezaei-Moghaddam (2016)'s recommendations, which state that investing more in social initiatives that benefit both employees and the community is a crucial step in reinforcing green human resource management in firms. These programs' agendas should be focused on health and safety tasks in which employees are exposed to potentially harmful emissions and the extent to which they are exposed, as well as environmental reporting roles. Using these programs will improve manufacturing organizations' long-term performance.

***H5a, b, c, d, e, f, g, h:*** *GHRM practices, including Green job description and analysis (H5a), Green recruitment and selection (H5b), Green training and development (H5c), Green performance management (H5d), Green pay and reward (H5e), Green health and safety (H5f), Green involvement and empowerment (H5g), Green discipline management (H5h) positively affects economic performance.*

***H6a, b, c, d, e, f, g, h:*** *GHRM practices, including Green job description and analysis (H6a), Green recruitment and selection (H6b), Green training and development (H6c), Green performance management (H6d), Green pay and reward (H6e), Green health and safety (H6f), Green involvement and empowerment (H6g), Green discipline management (H6h) positively affects environmental performance.*

*H7a, b, c, d, e, f, g, h: GHRM practices, including Green job description and analysis (H7a), Green recruitment and selection (H7b), Green training and development (H7c), Green performance management (H7d), Green pay and reward (H7e), Green health and safety (H7f), Green involvement and empowerment (H7g), Green discipline management (H7h) positively social performance.*

#### **2.2.4. The mediating role of green innovation between green HRM practices and sustainable performance**

Previous research has argued that HRM practices impacts innovation such as Fu et al. (2015), De Winne and Sels (2010). Authors believe that GHRM practices have the positive effect on the green innovation of operational issues, procedure, and hotel's product, and that HRM practices are especially important for start-ups with little human capital. In addition, Verburg et al. (2007) stated that HRM practices encourage employee dedication rather than conformity to organizational processes and systems. Besides, Zhou et al. (2013) argued that organizations which commit and collaborate with HRM practices have different effects on organizational innovation. Besides, many studies have proved that green innovation is a critical advantage for long-term success, and businesses need to apply it to achieve their sustainable management objectives (El-Kassar & Singh, 2019; Kammerer, 2009; Singh & El-Kassar, 2019). Green product and process innovation considerably minimizes a company's negative environmental effect, if any, and improves sustainable performance (finance, society, and environment) by reducing waste and costs, saving money, time, and resources (Del Giudice et al., 2018; Weng et al., 2015).

Authors suggest that GHRM practices indirectly influence business social, environmental, and economic performance through the role of green innovation, based on the AMO (Appelbaum et al., 2000) and RBV (Wernerfelt, 1984) theories. As a result, author propose:

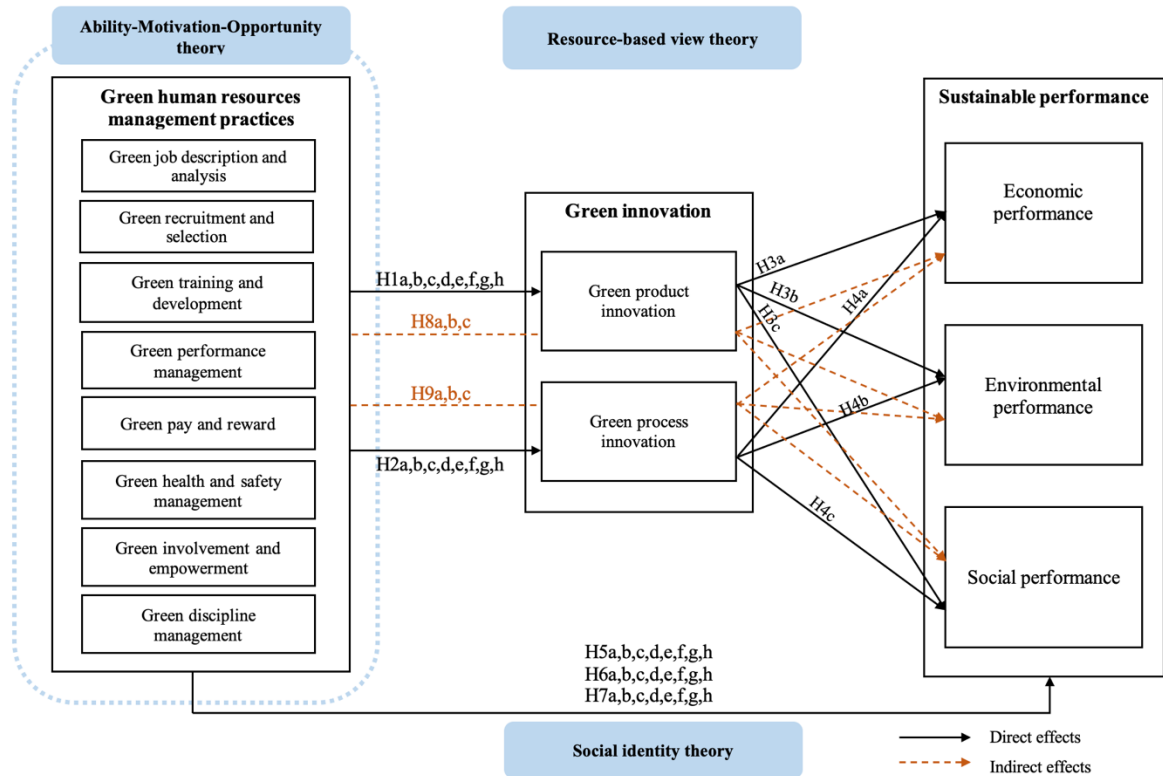
*H8a, b, c: GHRM practices positively influences Sustainable performance, including Social performance (H6a), Environmental performance (H6b), Economic performance (H6c) through green product innovation.*

*H9a, b, c: GHRM practices positively influences Sustainable performance, including Social performance (H7a), Environmental performance (H7b), Economic performance (H7c) through green process innovation.*

### 2.3. Research model

The author proposes here a conceptual research model (Figure. 2.2) begins with a thorough literature assessment and the creation of hypotheses that the author empirically tested in our research. As illustrated in Figure 2.2, the study encompasses a total of 52 hypotheses. These include seven overarching hypotheses, with Hypotheses 1-2-5-6-7 further subdivided into eight hypotheses, and Hypotheses 3-4-8-9 divided into three hypotheses each.

**Figure 2.1. Proposed Research model**



Source: Author's compilation, 2023

## **CHAPTER 3. METHODOLOGY**

### **3.1. Mixed methods research design**

Various typologies have been devised to classify and recognize different mixed methods strategies that researchers proposing mixed methods studies could employ. Creswell (2017) proposed three core mixed methods designs in terms of the convergent design, the explanatory sequential design, and the exploratory sequential design. In this study, the author utilized the convergent design mixed methods technique to answer the study's research questions, which is a technique for gathering, analyzing, combining, or integrating both quantitative and qualitative data at some step of the research process within a single study (Creswell, 2017). The convergent mixed methods design is likely the most recognized among the fundamental and intricate mixed methods methodologies. Those venturing into mixed methods research often initially gravitate towards this approach, assuming that it merely involves merging quantitative and qualitative data. In this singular-phase method, researchers gather both types of data, analyze them independently, and subsequently compare the outcomes to ascertain whether they corroborate or contradict each other (Creswell, 2017)

This study opted for a mixed methods approach for two primary reasons. Firstly, this approach proves well-suited for unveiling deeper insights into the relationships identified within the practical operational context of real-life scenarios. It also aids in discovering additional contextual factors that may influence the implementation of GHRM practices in hospitality corporations, as highlighted by Tashakkori and Teddlie (1998). Secondly, the sequential utilization of qualitative and quantitative data, viewed through a bifocal lens, positively influences the quantitative aspect of the study. This sequential approach is deemed advantageous, as qualitative and quantitative data are considered complementary, as suggested by Onwuegbuzie and Leech (2005).

### **3.2. Qualitative research design**

The qualitative stage is employed to investigate whether the dimensions of GHRM practices in this research are evident within the context of hospitality companies in Vietnam. This aims to enhance comprehension of how the research model is put into practice and generate fresh insights into the constructs and connections among variables. The qualitative phase not only helps to identify and confirm eight components of green HRM practices but also help to align and adjust the existed measurement scales in the context of Vietnam hospitality. To achieve this objective, 7 semi-structured interviews were carried out with human resources managers from 7 distinct luxurious accommodations that were implementing GHRM initiatives at different levels. According to Mack et al. (2005), in-depth interviews are ideal for gathering



information about people's personal histories, perspectives, and experiences, especially when dealing with delicate themes. The semi-structured format enables researchers to direct the conversation toward issues they deem crucial for their research topic (Brinkmann, 2013). It is anticipated that qualitative data obtained from these interviews will offer dependable insights into identifying GHRM practices dimensions evident in the hospitality sector in Vietnam.

### ***3.2.1. Sampling Strategy***

The author employed a combination of stratified purposive sampling, maximum variation sampling and snowball sampling strategies to recruit potential participants. For stratified purposive sampling technique which following on from a criterion sampling where each of the criteria would become a sample, the author targeted potential individuals from five groups of position in hotels: human resources department, front office department, sales & marketing department, food and beverage department, housekeeping department. The author provided a list of potential participants for each professional group. By using this list, the author initially planned to recruit at least one human resources manager, one front office manager, one sales & marketing manager, one food and beverage manager, one executive housekeeper per hotel. Invitation emails were circulated by the site coordinators to all potential participants who were asked to contact the main investigators if they required more information. We used maximum variation sampling to ensure that the sample reflects a diverse group in terms of gender, skill level, professional experience. Snowball Sampling is also used because author do not have enough relationship with all positions in each hotel.

Regarding sample size, Sekaran and Bougie (2016) suggest that qualitative research typically involves relatively small samples due to its in-depth nature, and scholars should continue sampling until no new insights are gained. Consequently, the sample size for the qualitative study in this research is contingent upon the quality of interviews and the saturation of collected data. After conducting 7 interviews and observing consistent alignment in responses with no new insights emerging, the researcher chose not to conduct additional interviews.

### ***3.2.2. Interview Protocol Development***

As per Patton (2015), an interview protocol comprises a set of questions and issues to be addressed during an interview, aiding researchers in covering all pertinent topics and ensuring that each participant is interviewed along similar lines of inquiry. Adhering to the recommendations of Jacob and Furgerson (2012), an interview protocol has been devised for this study. Respondents were presented with a varied range of questions to thoroughly examine the implementation of GHRM practices and their engagement in sustainable performance. This

protocol encompasses: (1) information for participants, including the introduction and the explanation for the gathering; (2) consent forms; (3) warm-up and inquiries about the interviewee's background; (4) primary questions, prompts, and probes; (5) summarization and conclusion; and (6) obtaining feedback on the interview process (see Appendix 1).

### ***3.2.3 Data Collection and Analysis***

The author initiates direct communication with potential participants through phone calls and emails, leveraging personal contacts and references. Those who express willingness to take part in the qualitative study can mutually determine a suitable interview schedule and location. Additionally, a consent form is provided to the participants (Appendix 1).

Face-to-face semi-structured interviews are conducted with one interviewer and one participant. The author engaged respondents by asking impartial questions, listening carefully to their responses, and then asking follow-up questions and probes based on their comments. With this step, we try to explore more scales and factors by interviewing managers in luxurious accommodations in Vietnam with open-ended questions related to my research.

The qualitative study utilized the thematic analysis method for data examination. The data underwent transcription, and these transcripts were shared with participants for their validation of accuracy. Subsequently, each transcript was coded and scrutinized by extracting themes from the raw data of each interview, along with identifying quotes associated with these common themes. The outcomes of the interviews were compiled and assessed, and pertinent adjustments will be implemented to enhance the constructs and survey instruments.

## **3.3. Quantitative research design**

### ***3.3.1. Sampling design***

The questionnaires are aimed at shift leader, supervisor, manager, and director positions who are working in various departments of hotels or resorts (human resources department, front office department, housekeeping department, food and beverage department, sales and marketing department, etc.) or board of management team (deputy general manager, assistant general manager, general manager, etc.). To find suitable participants, we used a variety of stratified purposive sampling, maximum variation sampling, and snowball sampling techniques. We targeted potential individuals from 2 groups: hotel departments and board of management team. For each professional group, the author supplied a list of potential participants. To guarantee that the sample reflects a wider category in terms of skill level, professional experience, policy implementation, and so on, we employed maximum variation

sampling. Because the author does not have enough relationships with all of Vietnamese 5-star hotels and resorts, snowball sampling is being employed.

### 3.3.2. *Sample size*

Comrey and Lee (1992) suggest that “the adequacy of sample size might be evaluated very roughly on the following scale: 50 – very poor; 100 – poor; 200 – fair; 300 – good; 500 – very good; 1000 or more – excellent”. In addition, Gorsuch (1990) and Heckler (1996) in exploring the factor analysis, a minimum object to item ratio of at least 5:1 is recommended (EFA). For this reason, the suitable sample size fluctuates in the range from 400 to 500 to eliminate the amounts of invalid responses. Besides, drawing from the research conducted by Hair et al. (2010), it is recommended that the sample size should be a minimum of five times the total number of factors, which in this case amounts to 75 items. The formula used for calculation is  $n = 5 * m$ , where  $m$  represents the number of questions in the survey. Consequently, to mitigate errors and deficiencies in data collection, the author opted for a sample size exceeding 375 participants for this study. For that reason, the author carried out 574 surveys for this study, achieving a response rate of 37% after data cleaning. This rate is consistent with those found in similar research within the hospitality and tourism field (Ali et al., 2021).

### 3.3.3. *Measurement scale*

The survey design is divided into two parts:

Part 1: Demographic data such as name, age, gender, and income... will be conducted to collect on respondents.

Part 2: In second part, a large deal of statements is listed for participants to rate the agreement. The purpose of this part is to get understanding about the effect of GHRM practices and green innovation on sustainable performance: the role of GHRM practices, green innovation, and sustainable performance by using some questions about the independent variables.

**Table 3.1.** *Descriptions of measurement scales*

Constructs	Proposed measurement items	Sources
<b>Green human resource management practices</b>		
Green job description and analysis (GJD)	GJD1. We have incorporated various responsibilities related to environmental protection in every position at my hotel. GJD2. We have encompassed the ecological and societal requirements of the organization within job descriptions and specifications at my hotel.	Shah (2019)

Constructs	Proposed measurement items	Sources
	<p>GJD3. We have integrated environmentally friendly skills as a distinguishing feature within job specifications at my hotel.</p> <p>GJD4. We have created and implemented incentive roles that highlight aspects of environmental protection at my hotel.</p>	
<p>Green recruitment and selection (GRS)</p>	<p>GRS1. The hotel's environmental performance draws employees during selecting initiatives.</p>	<p>Renwick et al. (2013)</p>
	<p>GRS2. Human resources department of my hotel leans towards hiring employees with environmental expertise.</p>	<p>Jabbour (2011)</p>
	<p>GRS3. We indicate or make transparent about organization's environmental performance (past and current) when communicating recruitment messages.</p>	<p>Oates (1996), Clarke (2006), Wehrmeyer (2017)</p>
	<p>GRS4. We include environmental criteria in the recruitment messages.</p> <p>GSR5. We reflect environmental policy and strategies of the company in its recruitment policy.</p> <p>GSR6. In our job advertisements, we communicate specific environmental values, such as being a member of ABC's green team or highlighting our commitment as a socially and environmentally responsible employer.</p> <p>GRS7. In our recruitment messages, we convey the company's preference for candidates who possess both the skills and the mindset to actively engage in corporate environmental management initiatives.</p>	<p>Opatha (2013)</p>
<p>Green training and development (GTD)</p>	<p>GTD1. We create training programs in environmental management to enhance the environmental awareness, skills, and expertise of our employees within my hotel.</p> <p>GTD2. Overall, our employees express contentment with the hotel's environmental training program.</p> <p>GTD3. The subjects covered in the environmental training are contemporary and well-suited to the hotel's operations.</p> <p>GTD4. My hotel offers structured environmental training programs to enhance employees' capacity to advocate for them.</p>	<p>Nejati et al. (2017)</p>

Constructs	Proposed measurement items	Sources
	<p>GTD5. Ecofriendly training is a priority and an important investment.</p> <p>GTD6. Assessing green training and development aids in gauging employees' level of knowledge and awareness regarding environmental matters.</p> <p>GTD7. Environmental objectives contain green training and development aspects.</p>	Yusoff et al. (2020)
Green performance management (GPM)	<p>GPM1. We incorporate environmentally friendly performance metrics within our performance management system and evaluations.</p> <p>GPM2. My hotel establishes environmentally focused targets, objectives, and duties for both managers and employees.</p> <p>GPM3. Within my hotel, managers are assigned goals related to achieving environmentally friendly outcomes as part of their performance appraisals.</p> <p>GPM4. Within my hotel, there are penalties within the performance management system for non-compliance or failing to meet environmental management objectives.</p>	Tang et al. (2018)
	<p>GPM5. We use green criteria to evaluate employees' performance.</p> <p>GPM6. Recognition of "Green Superstars" (exceptionally talented individuals who exceed expectations) and awarding prizes based on their environmentally beneficial contributions.</p>	Shah (2019)
Green pay and reward (GPR)	<p>GPR1. My hotel provides a financial incentive linked to environmental accomplishments.</p> <p>GPR2. My hotel offers non-monetary rewards (paid vacations, time off, gift certificates, etc) based on the environmental achievements.</p>	Crosbie and Knight (1995)
	GPR3. My hotel offers team excellence awards for better environmental performance.	Bhushan and MacKenzie (1992)
	GPR4. My hotel offers incentives for advanced ecofriendly initiatives and achievements.	Milliman and Clair (2017)

Constructs	Proposed measurement items	Sources
	GPR5. We publicly acknowledge employee excellence in environmental practices.	Renwick et al. (2008)
	GPR6. We offer rewards to promote environmentally conscious actions and behaviors, such as recycling and waste management.	Renwick et al. (2013)
	GPR7. We reward for green skills acquisition.	
Green health and safety (GHS)	GHS1. My hotel ensures that all workplaces are environmentally friendly. GHS2. My hotel implements green activities to reduce employee stress and work-related illnesses caused by harmful work environments. GHS3. My hotel devises and implements strategies to maintain a positive work environment, aiming to prevent various health issues and enhance the safety and well-being of our workforce.	Shah (2019)
	GHS4. My hotel empowers employees to secure and rebuild their workplace.	Arulrajah et al. (2015)
Green employee involvement and empowerment (GIE)	GIE1. My hotel has a well-defined developmental vision that directs employees' efforts in managing the environment. GIE2. In my hotel, there exists a culture of shared learning among staffs to promote green performance and consciousness. GIE3. In my hotel, various formal and informal communication channels are utilized to disseminate the green culture. GIE4. In my hotel, employees actively participate in enhancing quality and addressing green-related challenges through problem-solving initiatives. GIE5. We provide opportunities for employees to engage in environmental management through various avenues including newsletters, suggestion programs, problem-solving committees, low-carbon advocates, and green task forces.	Tang et al. (2018)

Constructs	Proposed measurement items	Sources
	GIE6. In my hotel, there's a strong emphasis on fostering an environmental protection culture.	
Green discipline management (GDM)	GDM1. Establishment of a clear set of rules and provisions regarding employee conduct in relation to environmental protection.	Bombiak and Marciniuk-Kluska (2018)
	GDM2. Development of a disciplinary system to discipline employees breaching the principles of ecological conduct.	
	GDM3. We implement disciplinary measures (like issuing warnings, imposing penalties, initiating suspensions, or terminating employment) against employees who violate environmental protection regulations and guidelines.	
	GDM4: Developing and publishing laws and regulations for greening activities.	
	GDM5: Setting penalties for failing to meet environmental management system objectives or violating environmental management system rules.	Renwick et al. (2013)
	GDM6: Motivating environmentally friendly behaviors and practices.	Alavi and Aghakhani (2023)
<b>Green innovation</b>		
Green product innovation	<p>GDI1. My hotel utilizes materials with minimal pollution emissions.</p> <p>GDI2. My hotel employs materials that require reduced energy and resources consumption.</p> <p>GD3. My hotel utilizes materials to design products that are environmentally friendly.</p> <p>GD4. My hotel employs materials that are readily recyclable, reusable, and biodegradable.</p>	Chen et al. (2006)
Green Process Innovation	GCI1. My hotel reduces the usage of resources such as water, electricity, gas, and fuel during production, utilization, and disposal stages.	Chiou et al. (2011)

Constructs	Proposed measurement items	Sources
	<p>GCI2. My hotel repurposes, reuse, and refurbish materials or components.</p> <p>GCI3. My hotel utilizes cleaner or renewable technologies to achieve cost savings, for instance, in energy, water, and waste management.</p>	
	<p>GCI4. My hotel redesigns production and operational processes to enhance environmental efficiency.</p> <p>GCI5. My hotel redesigns and enhances products or services to align with updated environmental standards or guidelines</p>	El-Kassar and Singh (2019)
<b>Sustainable performance</b>		
Economic Performance	<p>ECP1. Reduction in power consumption expenses.</p> <p>ECP2. Reduction in cost of acquiring materials.</p> <p>ECP3. Improved capacity utilization.</p>	Zhu et al. (2008), Li (2014)
	<p>ECP4. Reduction in waste treatment costs and waste discharge fees.</p> <p>ECP5. Decrease of penalty costs for environmental accident.</p> <p>ECP6. Average return on sales and investment has increased in recent years.</p> <p>ECP7. Average profit has increased in recent years.</p> <p>ECP8. Average growth in market share has increased in recent years.</p>	Zhu and Sarkis (2004), Green and Inman (2005)
Environmental Performance	<p>EVP1. The implementations of ecofriendly practices within our hotel have led to a decrease in waste generation.</p> <p>EVP2. The implementations of ecofriendly practices in our hotel have resulted in the preservation of water resources.</p> <p>EVP3. The implementations of ecofriendly practices within our hotel have resulted in reduced energy consumption.</p>	Kim et al. (2019)



Constructs	Proposed measurement items	Sources
	<p>EVP4. The implementations of ecofriendly practices in our hotel have decreased procurement of non-renewable materials, chemicals, and components.</p> <p>EVP5. The implementations of ecofriendly practices within our hotel have led to a decrease of overall expenses.</p> <p>EVP6. The implementations of ecofriendly practices within our hotel have enhanced its environmental standing within the market.</p> <p>EVP7. The implementations of ecofriendly practices within our hotel have enhanced its environmental standing within the customer.</p>	
Social Performance	<p>SP1. The customers' satisfaction has increased in recent years.</p> <p>SP2. The customers' motivation has increased in recent years.</p> <p>SP3. Our hotel industry serving more beneficiaries (disadvantaged people) or solving environmental issues.</p> <p>SP4. Our hotel industry provides more social or environmentally friendly services in the community</p>	Maletic et al. (2015), Cheah et al. (2019)

*Source: Author's compilation, 2023*

#### **3.3.4. Pilot test**

In this research, a preliminary test is employed to assess the clarity and precision of the modified questionnaire following expert evaluations. It aims to evaluate the time required for questionnaire completion and identify any issues related to survey instrument design. The pilot test involves 50 leaders from 5-star hotels proficient in both Vietnamese and English, meeting the criteria suggested by Hill (1998) of 10-30 participants. Convenient sampling is used for participant selection. Through these steps, the researcher seeks to enhance the questionnaire's alignment with the tourism context in Vietnam, improve its reliability and validity, prior to its distribution to the target respondents. Subsequently, SmartPLS version 4.0 is utilized for factor analysis and to examine correlations between study factors. Any factor items exhibiting low Cronbach alphas (below 0.6) are adjusted or removed. The results in appendix 7 affirmed the

constructs' reliability and indicate that the measures are suitable for subsequent quantitative analysis.

### ***3.3.5. Data analysis***

Structural Equation Modeling (SEM) is extensively utilized by researchers for its capacity to handle various concepts (Rigdon, 1998). In this research, quantitative data from 574 cases is inputted into Microsoft Excel and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) as the primary statistical approach. SmartPLS software version 4.0 is employed for data processing. PLS-SEM represents a potent second-generation multivariate technique focused on analyzing and validating hypothesized relationships. Compared to other methodological tools, the primary advantage of employing PLS-SEM lies in its capacity to handle complex sets of variables, often incorporating additional theory-based measurement variables, while simultaneously enhancing predictive accuracy and relevance (Hair et al., 2019). Employing PLS, we adopted a two-step approach. Initially, the author scrutinized the measurement model to ensure its freedom from reliability and validity issues. Subsequently, we evaluated the structural model to ascertain predictive accuracy and relevance, determine the significance of hypothesized paths, and assess the strength of path coefficients among thematic constructs. Furthermore, Hair et al. (2019) recommended researchers to employ PLS-SEM in scenarios where analysis aims to test a theoretical framework from a predictive standpoint, where the structural model is intricate involving numerous constructs, indicators, and model relationships, and where a limited population size constrains the sample size (noting that PLS-SEM remains effective even with large sample sizes).

## CHAPTER 4. DATA ANALYSIS AND RESULTS

### 4.1 Qualitative results

#### 4.1.1 Respondent profiles and analysis processes

In the beginning, the sample size was unrestricted. Nevertheless, as the interviews progressed, the author discerned recurring patterns in subsequent responses, reaching a point where additional exploration became unnecessary. Consequently, the final sample size was narrowed down to 7 respondents as presented in table 4.1.

**Table 4.1.** *Summary of Participants in Qualitative Study*

Case	Type of accommodation	Division	Position	Gender	Working Experience	Degree
A	5-star resort	Front office	Manager	Female	10 years	Master
B	5-star hotel	Human resources	Director	Female	22 years	Bachelor
C	5-star hotel	Sales and marketing	Senior manager	Female	8 years	Bachelor
D	4-star hotel	Board of management	Deputy general manager	Male	27 years	Bachelor
E	5-star resort	Sales and marketing	Assistant director	Male	18 years	Bachelor
F	5-star hotel	Food and beverage	Manager	Female	12 years	Bachelor
G	4-star hotel	Housekeeping	Senior manager	Male	19 years	Bachelor

*Source: Author's compilation, 2023*

The subsequent stage in this procedure involved creating the interview guide. In preparation, the author observed and engaged in informal conversations with green practices in hotels and resorts to gain a clear understanding of the topic of interest. This insight was then used to formulate pertinent and meaningful semi-structured questions for the interviews. However, to ensure the comprehensiveness, precision of purpose, and openness for extension in the list of questions, it was crucial to precisely identify the information sought from the selected green practices. In this instance, the goal was to gain a holistic understanding of their

perceptions regarding the hospitality industry they currently utilized, along with what they considered valuable when exploring such products and services.

#### 4.1.2. Findings

Every single interview was systematically coded using a specific code letter. The characteristics drawn from these codes were then utilized to develop a comprehensive understanding of the business environments self-reported by the respective interviewed managers. Following the completion of 7 distinct in-depth interviews, the recorded responses were compiled to generate a summary of the insights obtained. These terms signify numerous potential antecedents to GHRM practices.

**Table 4.2.** *Interview Questions and expected esults*

<b>GHRMps factors</b>	<b>Interview Questions</b>	<b>Most Frequent Wordings</b>
<b>Green job description and analysis</b>	How to design a job description that be engaged environmental concerns?	“attract the candidates”, “share the environmental concerns”, “mission”, “vision”, “short term”, “long term”, “distinguishing feature”, “environmental requirements”, “environmental responsibilities”, “job specifications”
<b>Green recruitment and selection</b>	What measures does your hotel employ to choose and recruit individuals who express an interest in promoting environmental sustainability?	“case studies”, “solutions”, “attitudes and thinking”, “commitment”, “green criteria”, “green policies and strategies”, “mindset”
<b>Green training and development</b>	Can you explain how you train your employees to be involved in environmental management initiatives?	“Enhance green perception and skills”, “develop green awareness”, “create green activities”, “create training program”, “a priority”, “important investment”
<b>Green performance management</b>	How do you measure your employees performance and contributions to the	“measure the effectiveness”, “evaluating their green enthusiasm”, “management observations”, “performance management

	advancement of environmental performance?	system”, “objectives”, “duties”, “Green superstars”
<b>Green pay and reward</b>	Can you explain how do you instill values of green practices among your employees?	“financial rewards”, “non-financial rewards”, “team excellence awards”, “advanced initiatives and achievements”, “publicly acknowledge employee”
<b>Green health and safety</b>	Related to health and safety of staffs, what measures are conducted in your hotel to enhance a green workplace?	“green workplaces”, “reduce stress”, “prevent health issues”, “ensure safety and security”, “clean working areas”, “hygienic”,
<b>Green involvement and empowerment</b>	How to help every single staff voluntarily involve to the action of protecting environment?	“Prioritize the spirit of volunteerism”, “encouraging the employees”, “responsibility”, “awareness of environmental issues”, “motivate and support employees”
<b>Green discipline management</b>	Regards to disciplinary system, what actions are used in your hotel to protect environment?	“create disciplinary system”, “implement disciplinary measures”, “develop laws and regulations”, “setting penalties”,

#### **4.1.3. Discussion**

- **Green job description and analysis**

When asked about their perspectives on how to attractive the potential employees by engaging the green job descriptions and analysis, all interviews stated that their hotel has already tried to share the environmental concerns and activities in the job description. All participants said that the most effective way to recruit the right people with high environmental awareness in protecting environment is using the green job description.

- **Green recruitment and selection**

The construct of green recruitment and selection obtained from the in-depth interviews is consistent with the definition given by Jabbour and Santos (2008), Jabbour et al. (2010),

Renwick et al. (2013). Green recruitment and selection were confirmed as being most associated with green human resource management practices.

- **Green training and development**

In the literature, Jabbour (2011) and (Renwick et al., 2013) identified green training and development as one of the dimensions of GHRM practices and described GTD as the proposed actions aimed at increasing employees' awareness of the environment, providing them with environmental skills, and elevating green competence and expertise among the organization's workforces. Green training and development were again confirmed as being associated with the dimension of GHRM practices.

- **Green performance management**

Most of the interviewees shared that they know the value of creating green performance management and improving the environmental performance. The development of environmental outcome metrics entails defining a system of environmental assessments for all participants of the team in outcome reviews, covering themes like responsibilities and commitments to environment, carbon lowering, and conveying environmental laws and regulations. As such, green performance management was confirmed as being most associated with green human resource management practices and consistent with Jabbour (2011).

- **Green pay and reward**

The analysis revealed that the majority of the respondents believed that green pay and reward include financial and non-financial incentives for employees who demonstrate significant potential to contribute to eco-friendly management. Besides, improving the reward and competency system to enhance organizational performance, promote dedication to environmental initiatives, and empower employees to actively participate in environmental progress. These findings reflect the alignment with the previous studies (Daily et al., 2012; Jabbour, 2011) and confirm the essential role of green pay and reward in green HRM practices.

- **Green health and safety**

the analysis illustrated that to enhance the well-being of their employees, hotels have implemented strategies, such as the establishment of green factories or zones, to maintain a favorable environment and prevent various health issues. From the researcher's observation, this theme is consistent with the concept of need for achievement identified in the literature, which points to implement health and safety procedures that align with ecofriendly management (Shah, 2019). Therefore, green health and safety was confirmed for the Research model of this study.

- **Green involvement and empowerment**

from author’s observation, a corporation can improve its ecofriendly outcome through diverse actions that empower employees to actively participate in green initiatives. These procedures encompass the deepening of employees' tacit knowledge, fostering motivation and engagement in generating ideas to address environmental issues, and establishing a culture that promotes environmental management, this concept is totally consistent with opportunity perspective in AMO (Appelbaum et al., 2000). Consequently, green involvement and empowerment was confirmed for the Research model of this study.

- **Green discipline management**

the analysis revealed that the majority of the respondents believed that green discipline management is a pre-requisite in corporate environmental management. In ensuring green employee behaviour in the workplace, organizations may need green discipline management practices to achieve the environmental management objectives and strategies of the organisation. As such, green discipline management was confirmed as being associated with green human resource management practices and consistent with (Wehrmeyer, 2017).

## 4.2. Quantitative Results

### 4.2.1. Evaluating the measurement models

#### 4.2.1.1. Reliability test

- **Factor loading indicators.**

In evaluating reflective measurement models, the initial step involves scrutinizing the indicator loadings. Several guidelines exist regarding acceptable indicator loadings. Hair et al. (2019) suggested that "loadings above 0.708 are recommended, as they indicate that the construct explains more than 50 per cent of the indicator’s variance, thus providing acceptable item reliability". Conversely, Hulland (1999) posited that indicator loadings falling within the range of 0.4 to 0.7 can be deemed acceptable.

**Table 4.3.** *Factor Loading Indicators*

	ECP	EVP	GDM	GHS	GIE	GJD	GPCI	GPDI	GPM	GPR	GRS	GTD	SP
ECP1	0.889												
ECP2	0.840												
ECP3	0.881												
ECP4	0.893												
ECP5	0.907												
ECP6	0.918												
ECP7	0.797												

<b>ECP8</b>	0.856		
<b>EVP1</b>	0.883		
<b>EVP2</b>	0.863		
<b>EVP3</b>	0.917		
<b>EVP4</b>	0.844		
<b>EVP5</b>	0.872		
<b>EVP6</b>	0.892		
<b>EVP7</b>	0.897		
<b>GDM1</b>	0.834		
<b>GDM2</b>	0.852		
<b>GDM3</b>	0.742		
<b>GDM6</b>	0.774		
<b>GHS1</b>	0.926		
<b>GHS2</b>	0.926		
<b>GHS3</b>	0.919		
<b>GIE1</b>	0.918		
<b>GIE2</b>	0.905		
<b>GIE3</b>	0.895		
<b>GIE4</b>	0.872		
<b>GIE5</b>	0.846		
<b>GIE6</b>	0.821		
<b>GJD1</b>	0.880		
<b>GJD2</b>	0.865		
<b>GJD3</b>	0.884		
<b>GJD4</b>	0.887		
<b>GPCI1</b>	0.829		
<b>GPCI2</b>	0.860		
<b>GPCI3</b>	4.000		
<b>GPCI4</b>	0.883		
<b>GPCI5</b>	0.755		
<b>GPDI1</b>	0.823		
<b>GPDI2</b>	0.789		
<b>GPDI3</b>	0.860		
<b>GPDI4</b>	0.805		
<b>GPM1</b>	0.826		
<b>GPM2</b>	0.733		
<b>GPM3</b>	0.810		
<b>GPM4</b>	0.742		
<b>GPM5</b>	0.757		
<b>GPR1</b>	0.742		
<b>GPR2</b>	0.787		
<b>GPR3</b>	0.882		
<b>GPR4</b>	0.906		
<b>GPR5</b>	0.908		
<b>GPR6</b>	0.899		
<b>GPR7</b>	0.859		
<b>GRS1</b>			0.882



GRS2	0.813
GRS3	0.848
GRS4	0.878
GRS5	0.909
GRS6	0.841
GRS7	0.871
<hr/>	
GTD1	0.908
GTD2	0.921
GTD3	0.895
GTD4	0.899
GTD5	0.919
<hr/>	
SP1	0.786
SP2	0.808
SP3	0.798
SP4	0.890

*Source: Author's compilation from Smart PLS, 2023*

After examining the indicator loadings, the measurement scale for outer model has 8 independent variables with 41 indicators. Some items were excluded since their indicator loadings were below 0.6, including GDM4, GDM5 of Green discipline management; GHS4 of Green health and safety; GPM6 of Green performance management; GTD6, GTD7 of Green training and development. Besides, the measurement scale for inner model has 5 dependent variables with 28 indicators remains the same number.

- **Assessing internal consistency reliability**

Table 4.4 demonstrates that the composite reliability of each construct fell within the range of 0.878 to 0.963, aligning with accepted standards for model assessment. Among these, the Economic performance (ECP) factor exhibited the highest composite reliability at 0.963, trailed by Environmental performance (EVP) factor at 0.961, and Green training and development (GTD) factor at 0.959. Hence, it can be inferred that all constructs displayed internal consistency reliability.

**Table 4.4.** *Reliability and validity*

Constructs	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
<b>Economic performance (ECP)</b>	0.955	0.962	0.963	0.763
<b>Environmental performance (EVP)</b>	0.952	0.954	0.961	0.777
<b>Green discipline management (GDM)</b>	0.814	0.821	0.878	0.643

<b>Green health and safety (GHS)</b>	0.914	0.921	0.946	0.853
<b>Green involvement and empowerment (GIE)</b>	0.941	0.969	0.952	0.769
<b>Green job description and analysis (GJD)</b>	0.902	0.904	0.932	0.773
<b>Green process innovation (GPCI)</b>	0.898	0.905	0.925	0.712
<b>Green product innovation (GPDI)</b>	0.838	0.843	0.891	0.672
<b>Green performance management (GPM)</b>	0.834	0.846	0.882	0.600
<b>Green pay and reward (GPR)</b>	0.939	0.947	0.951	0.734
<b>Green recruitment and selection (GRS)</b>	0.943	0.945	0.954	0.746
<b>Green training and development (GTD)</b>	0.947	0.950	0.959	0.825
<b>Social performance (SP)</b>	0.838	0.843	0.892	0.674

*Source: Author's compilation from Smart PLS, 2023*

#### **4.2.1.2. Validity test**

- **Convergent validity**

As per Hair et al. (2013), the evaluation of convergent validity seeks to examine the degree to which a scale demonstrates a positive correlation with alternative measures assessing the same variable, as indicated by the Average Variance Extracted (AVE) index. Convergence of variables is typically confirmed when the respective value surpasses 0.5 (Hair et al., 2019). All scales listed in summary table 4.7 exhibit AVE values exceeding 0.5 (ranging from 0.600 to 0.853), indicating that the observed variables possess valid convergence metrics. Therefore, the convergent validity was confirmed.

- **Discriminant validity**

The next step in evaluating a reflective measurement model involves examining discriminant validity, defined as "the degree to which a construct is empirically separate from other constructs within the structural model" (Hair et al., 2019). Fornell and Larcker (1981) proposed that the square root of the Average Variance Extracted (AVE) for each latent variable should exceed the correlations among these latent variables, serving as a criterion for establishing discriminant validity. Additionally, Hair et al. (2011) recommended that, in terms

of discriminant validity, the loading value of an indicator should surpass all of its cross-loadings.

As can be seen in Table 4.5, similar patterns were found with other latent variables. In other words, the discriminant validity was supported for all the constructs, ranging from 0.774 to 0.924.

**Table 4.5.** *Discriminant validity-Formell and Lacker Criterion*

	ECP	EVP	GDM	GHS	GIE	GJD	GPCI	GPDI	GPM	GPR	GRS	GTD	SP
ECP	<b>0.873</b>												
EVP	0.441	<b>0.881</b>											
GDM	0.468	0.705	<b>0.802</b>										
GHS	0.212	0.340	0.317	<b>0.924</b>									
GIE	0.148	0.202	0.262	0.205	<b>0.877</b>								
GJD	0.351	0.630	0.529	0.254	0.120	<b>0.879</b>							
GPCI	0.403	0.558	0.565	0.280	0.159	0.393	<b>0.844</b>						
GPDI	0.210	0.357	0.398	0.149	0.231	0.237	0.480	<b>0.820</b>					
GPM	0.385	0.728	0.632	0.311	0.218	0.552	0.440	0.331	<b>0.774</b>				
GPR	0.450	0.752	0.634	0.360	0.187	0.592	0.527	0.349	0.602	<b>0.857</b>			
GRS	0.547	0.758	0.798	0.320	0.202	0.632	0.565	0.355	0.708	0.717	<b>0.864</b>		
GTD	0.389	0.737	0.621	0.282	0.184	0.596	0.502	0.310	0.623	0.643	0.660	<b>0.908</b>	
SP	0.573	0.777	0.731	0.329	0.230	0.531	0.543	0.353	0.632	0.681	0.718	0.618	<b>0.821</b>

*Source: Author's compilation from Smart PLS, 2023*

#### **4.2.2. Evaluating the structural models**

In this research, the authors utilize bootstrapping to assess the significance of the path coefficient. They employ 5000 bootstrap samples, each comprising the same number of cases as the original observations. Initially, the authors examine the P-value to assess hypotheses and gauge the reliability of these hypotheses. According to Hair et al. (2014), a higher P-value indicates lower reliability of the hypothesis, while a P-value less than 0.05 is considered appropriate for evaluating the worth of the research model. Through this process, T-statistics are generated to evaluate the significance of the model's paths. In this particular study, the authors utilize 574 data points from 5000 samples derived from the original dataset to compute the T-values for testing the importance of the structural paths. For relationships within the 95%

confidence interval, indicating statistical significance, the T-value (T-statistics) should be equal to or greater than 1.96 to be deemed satisfactory. Specifically, significant t-values for the two-tailed test are 1.65 at a significance level of 10%, 1.96 at a significance level of 5%, and 2.58 at a significance level of 1%.

#### 4.2.2.1. Direct effects testing

**Table 4.6.** Direct Effects

Hypotheses Relationship p	Hypotheses Relationship	Path coefficients ( $\beta$ )	T values	P values	Decision
H1a	GJD -> GPDI	-0.043	0.920	<b>0.358</b>	<b>Rejected</b>
H1b	GRS -> GPDI	-0.009	0.108	<b>0.914</b>	<b>Rejected</b>
H1c	GTD -> GPDI	0.034	0.588	<b>0.556</b>	<b>Rejected</b>
H1d	GPM -> GPDI	0.084	1.399	<b>0.162</b>	<b>Rejected</b>
H1e	GPR -> GPDI	0.143	2.350	0.019	Supported
H1f	GHS -> GPDI	-0.026	0.651	<b>0.515</b>	<b>Rejected</b>
H1g	GIE -> GPDI	0.130	3.056	0.002	Supported
H1h	GDM -> GPDI	0.236	3.053	0.002	Supported
H2a	GJD -> GPCI	-0.033	0.726	<b>0.468</b>	<b>Rejected</b>
H2b	GRS -> GPCI	0.175	2.607	0.009	Supported
H2c	GTD -> GPCI	0.150	2.837	0.005	Supported
H2d	GPM -> GPCI	-0.034	0.765	<b>0.445</b>	<b>Rejected</b>
H2e	GPR -> GPCI	0.166	3.177	0.001	Supported
H2f	GHS -> GPCI	0.063	1.584	<b>0.113</b>	<b>Rejected</b>
H2g	GIE -> GPCI	-0.001	0.039	<b>0.969</b>	<b>Rejected</b>
H2h	GDM -> GPCI	0.247	3.715	0.000	Supported
H3a	GPDI -> ECP	0.021	0.442	<b>0.659</b>	<b>Rejected</b>
H3b	GPDI -> EVP	0.116	2.887	0.004	Supported
H3c	GPDI -> SP	0.121	2.790	0.005	Supported
H4a	GPCI -> ECP	0.393	6.990	0.000	Supported
H4b	GPCI -> EVP	0.503	10.043	0.000	Supported
H4c	GPCI -> SP	0.485	8.227	0.000	Supported
H5a	GJD -> ECP	-0.014	0.766	<b>0.444</b>	<b>Rejected</b>
H5b	GRS -> ECP	0.068	2.255	0.024	Supported
H5c	GTD -> ECP	0.060	2.499	0.012	Supported
H5d	GPM -> ECP	-0.012	0.638	<b>0.524</b>	<b>Rejected</b>
H5e	GPR -> ECP	0.068	2.890	0.004	Supported
H5f	GHS -> ECP	0.024	1.530	<b>0.126</b>	<b>Rejected</b>
H5g	GIE -> ECP	0.002	0.149	<b>0.882</b>	<b>Rejected</b>
H5h	GDM -> ECP	0.102	3.058	0.002	Supported
H6a	GJD -> EVP	-0.022	0.924	<b>0.356</b>	<b>Rejected</b>
H6b	GRS -> EVP	0.087	2.298	0.022	Supported
H6c	GTD -> EVP	0.079	2.494	0.013	Supported
H6d	GPM -> EVP	-0.008	0.294	<b>0.769</b>	<b>Rejected</b>
H6e	GPR -> EVP	0.100	3.179	0.001	Supported

H6f	GHS -> EVP	0.029	1.357	<b>0.175</b>	<b>Rejected</b>
H6g	GIE -> EVP	0.014	0.744	<b>0.457</b>	<b>Rejected</b>
H6h	GDM -> EVP	0.152	3.646	0.000	Supported
H7a	GJD -> SP	-0.021	0.936	<b>0.349</b>	<b>Rejected</b>
H7b	GRS -> SP	0.084	2.193	0.028	Supported
H7c	GTD -> SP	0.077	2.447	0.014	Supported
H7d	GPM -> SP	-0.006	0.256	<b>0.798</b>	<b>Rejected</b>
H7e	GPR -> SP	0.098	3.171	0.002	Supported
H7f	GHS -> SP	0.028	1.357	<b>0.175</b>	<b>Rejected</b>
H7g	GIE -> SP	0.015	0.780	<b>0.436</b>	<b>Rejected</b>
H7h	GDM -> SP	0.148	3.501	0.000	Supported

Source: Author's compilation from Smart PLS, 2023

**Research Question 2: How does GHRM practices have an impact on green innovation of hospitality industry in Vietnam?**

*H1a: Green job description and analysis of GHRM practices positively affects green product innovation.*

*H1b: Green recruitment and selection of GHRM practices positively affects green product innovation.*

*H1c: Green training and development of GHRM practices positively affects green product innovation.*

*H1d: Green performance management of GHRM practices positively affects green product innovation.*

*H1e: Green pay and reward of GHRM practices positively affects green product innovation.*

*H1f: Green health and safety of GHRM practices positively affects green product innovation.*

*H1g: Green involvement and empowerment of GHRM practices positively affects green product innovation.*

*H1h: Green discipline management of GHRM practices positively affects green product innovation.*

Hypothesis one was tested. The results from table 4.6 showed that there were three factors GPR ( $\beta = 0.143$ ,  $T = 2.350$ ,  $P = 0.019 < 0.05$ ), GIE ( $\beta = 0.130$ ,  $T = 3.056$ ,  $P = 0.002 < 0.01$ ), GDM ( $\beta = 0.236$ ,  $T = 3.053$ ,  $P = 0.002 < 0.01$ ), were positively associated with green product innovation at 99% and 95% confidence level. Therefore, hypothesis H1e, H1g and H1h were supported. However, five factors GJD, GRS, GTD, GPM, GHS were not associated with green product innovation and had no significant differences. Hypotheses H1a, H1b, H1c, H1d and H1f were rejected because these factors were not statistically significant.

*H2a: Green job description and analysis of GHRM practices positively affects green process innovation.*

*H2b: Green recruitment and selection of GHRM practices positively affects green process innovation.*

*H2c: Green training and development of GHRM practices positively affects green process innovation.*

*H2d: Green performance management of GHRM practices positively green process innovation.*

*H2e: Green pay and reward of GHRM practices positively affects green process innovation.*

*H2f: Green health and safety of GHRM practices positively affects green process innovation.*

*H2g: Green involvement and empowerment of GHRM practices positively affects green process innovation.*

*H2h: Green discipline management of GHRM practices positively affects green process innovation.*

Hypothesis two was tested. The results from table 4.6 indicated that there were four factors GRS ( $\beta = 0.175$ ,  $T = 2.607$ ,  $P = 0.009 < 0.01$ ), GTD ( $\beta = 0.150$ ,  $T = 2.837$ ,  $P = 0.005 < 0.01$ ), GPR ( $\beta = 0.166$ ,  $T = 3.177$ ,  $P = 0.001 < 0.01$ ), GDM ( $\beta = 0.247$ ,  $T = 3.715$ ,  $P = 0.000 < 0.01$ ), were positively correlated with green product innovation at 99% confidence level. Therefore, hypothesis H2b, H2c, H2e and H2h were supported. However, four factors GJD, GPM, GHS, GIE were not correlated with green process innovation and had no significant differences. Consequently, hypotheses H2a, H2d, H2f, H2g were rejected because these factors were not statistically significant.

**Research Question 3: How does green innovation affect sustainable performance of hospitality industry in Vietnam?**

*H3a: Green product innovation positively affects economic performance.*

*H3b: Green product innovation positively affects environmental performance.*

*H3c: Green product innovation positively impacts on social performance.*

Hypothesis three was tested. The results from table 4.6 indicated that green product innovation was positively correlated with two factors in terms of EVP ( $\beta = 0.116$ ,  $T = 2.887$ ,  $P = 0.004 < 0.01$ ) and SP ( $\beta = 0.121$ ,  $T = 3.715$ ,  $P = 0.005 < 0.01$ ) at 99% confidence level. Therefore, hypothesis H3b, and H3c were supported. However, green product innovation was

not correlated with economic performance and had no significant differences. Consequently, hypotheses H3a was rejected because this factor was not statistically significant.

*H4a: Green process innovation positively affects economic performance.*

*H4b: Green process innovation positively affects environmental performance.*

*H4c: Green process innovation positively impacts on social performance.*

Hypothesis four was tested. The results showed that all the path coefficients were statistically significant. ECP ( $\beta = 0.393$ ,  $T = 6.990$ ,  $P = 0.000 < 0.01$ ), EVP ( $\beta = 0.503$ ,  $T = 10.043$ ,  $P = 0.000 < 0.01$ ) and SP ( $\beta = 0.485$ ,  $T = 8.227$ ,  $P = 0.000 < 0.01$ ) at 99% confidence level. Therefore, hypotheses H4a, H4b and H4c were fully supported.

**Research Question 4: How does GHRM practices influence sustainable performance of hospitality industry in Vietnam?**

*H5a: Green job description and analysis of GHRM practices positively affects economic performance.*

*H5b: Green recruitment and selection of GHRM practices positively affects economic performance.*

*H5c: Green training and development of GHRM practices positively affects economic performance.*

*H5d: Green performance management of GHRM practices positively affects economic performance.*

*H5e: Green pay and reward of GHRM practices positively affects economic performance.*

*H5f: Green health and safety of GHRM practices positively affects economic performance.*

*H5g: Green involvement and empowerment of GHRM practices positively affects economic performance.*

*H5h: Green discipline management of GHRM practices positively affects economic performance.*

Hypothesis five was tested. The results from table 4.6 indicated that there were four factors GRS ( $\beta = 0.068$ ,  $T = 2.255$ ,  $P = 0.024 < 0.05$ ), GTD ( $\beta = 0.060$ ,  $T = 2.499$ ,  $P = 0.012 < 0.05$ ), GPR ( $\beta = 0.068$ ,  $T = 2.890$ ,  $P = 0.004 < 0.01$ ), GDM ( $\beta = 0.102$ ,  $T = 3.058$ ,  $P = 0.002 < 0.01$ ), were positively correlated with economic performance at 99% and 95% confidence level. Therefore, hypothesis H5b, H5c, H5e and H5h were supported. However, four factors GJD, GPM, GHS, GIE were not correlated with economic performance and had no significant

differences. Consequently, hypotheses H5a, H5d, H5f, H5g were rejected because these factors were not statistically significant.

**H6a:** *Green job description and analysis of GHRM practices positively affects environmental performance.*

**H6b:** *Green recruitment and selection of GHRM practices positively affects environmental performance.*

**H6c:** *Green training and development of GHRM practices positively affects environmental performance.*

**H6d:** *Green performance management of GHRM practices positively affects environmental performance.*

**H6e:** *Green pay and reward of GHRM practices positively affects environmental performance.*

**H6f:** *Green health and safety of GHRM practices positively affects environmental performance.*

**H6g:** *Green involvement and empowerment of GHRM practices positively affects environmental performance.*

**H6h:** *Green discipline management of GHRM practices positively affects environmental performance.*

Hypothesis six was tested. The results from table 4.6 indicated that there were four factors GRS ( $\beta = 0.087$ ,  $T = 2.298$ ,  $P = 0.022 < 0.05$ ), GTD ( $\beta = 0.079$ ,  $T = 2.494$ ,  $P = 0.013 < 0.05$ ), GPR ( $\beta = 0.100$ ,  $T = 3.179$ ,  $P = 0.001 < 0.01$ ), GDM ( $\beta = 0.152$ ,  $T = 3.646$ ,  $P = 0.000 < 0.01$ ), were positively correlated with environmental performance at 99% and 95% confidence level. Therefore, hypothesis H6b, H6c, H6e and H6h were supported. However, four factors GJD, GPM, GHS, GIE were not correlated with environmental performance and had no significant differences. Consequently, hypotheses H6a, H6d, H6f, H6g were rejected because these factors were not statistically significant.

**H7a:** *Green job description and analysis of GHRM practices positively affects social performance.*

**H7b:** *Green recruitment and selection of GHRM practices positively affects social performance.*

**H7c:** *Green training and development of GHRM practices positively affects social performance.*



**H7d:** *Green performance management of GHRM practices positively affects social performance.*

**H7e:** *Green pay and reward of GHRM practices positively affects social performance.*

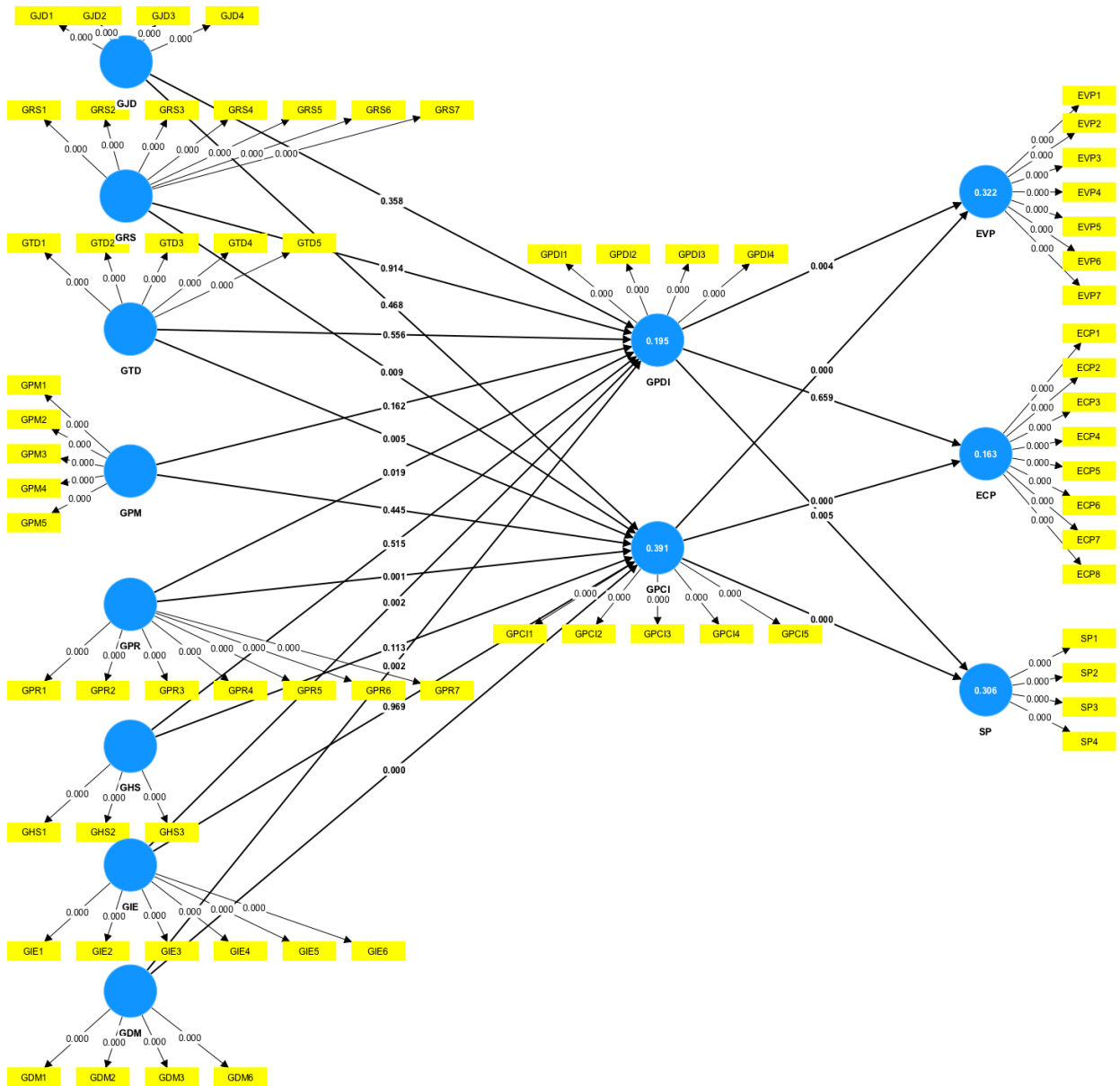
**H7f:** *Green health and safety of GHRM practices positively affects social performance.*

**H7g:** *Green involvement and empowerment of GHRM practices positively affects social performance.*

**H7h:** *Green discipline management of GHRM practices positively affects social performance.*

Hypothesis seven was tested. The results from table 4.6 indicated that there were four factors GRS ( $\beta = 0.084$ ,  $T = 2.193$ ,  $P = 0.028 < 0.05$ ), GTD ( $\beta = 0.077$ ,  $T = 2.447$ ,  $P = 0.014 < 0.05$ ), GPR ( $\beta = 0.098$ ,  $T = 3.171$ ,  $P = 0.002 < 0.01$ ), GDM ( $\beta = 0.148$ ,  $T = 3.501$ ,  $P = 0.000 < 0.01$ ), were positively correlated with social performance at 99% and 95% confidence level. Therefore, hypothesis H7b, H7c, H7e and H7h were supported. However, four factors GJD, GPM, GHS, GIE were not correlated with social performance and had no significant differences. Consequently, hypotheses H7a, H7d, H7f, H7g were rejected because these factors were not statistically significant.

**Figure 4.1.** PLS-SEM model for direct effects testing



*Source: Author's compilation from Smart PLS, 2023*

#### 4.2.2.2. Mediation Testing

Mediation analyses play a crucial role in causal and structural modeling as they allow researchers to grasp the "fundamental mechanisms explaining the connection between a predictor and an outcome" and "make deductions regarding the reasons for the association between two variables or the nature of their relationship" (Liu and Ulrich, 2016). As stated by Liu and Ulrich (2016), a mediating factor could completely or partly explain the link between X (the predictor) and Y (the outcome), offering insight into why this relationship exists.

This study conducted mediation analyses to investigate how green innovation acts as a mediator in the relationship between GHRM practices and the attainment of sustainable performance. The results of these analyses are presented in Table 4.7.

**Table 4.7.** *Indirect Effects on Sustainable Performance*

Hypotheses	Relationship	Path coefficients ( $\beta$ )	T values	P values	Decision
H8a	GHRMps -> GPDI -> ECP	0.010	0.442	<b>0.658</b>	<b>Rejected</b>
H8b	GHRMps -> GPDI -> EVP	0.051	2.478	0.013	Supported
H8c	GHRMps -> GPDI -> SP	0.053	2.426	0.015	Supported
H9a	GHRMps -> GCI -> ECP	0.248	4.875	0.000	Supported
H9b	GHRMps -> GCI -> EVP	0.317	6.012	0.000	Supported
H9c	GHRMps -> GCI -> SP	0.306	5.320	0.000	Supported

*Source: Author's compilation from Smart PLS, 2023*

**Research Question 5: How does green innovation mediate the relationship between GHRM practices and sustainable performance of hospitality industry in Vietnam?**

*H8a: GHRM practices positively influences Economic performance through green product innovation.*

*H8b: GHRM practices positively influences Environmental performance through green product innovation.*

*H8c: GHRM practices positively influences Social performance through green product innovation.*

Hypothesis eight was tested. The results from table 4.7 indicated that green HRM practices was positively correlated with two factors in terms of EVP ( $\beta = 0.051$ ,  $T = 2.478$ ,  $P = 0.013 < 0.05$ ) and SP ( $\beta = 0.053$ ,  $T = 2.426$ ,  $P = 0.015 < 0.05$ ) at 95% confidence level. Therefore, hypothesis H8b, and H8c were supported. However, green HRM practices was not correlated with economic performance and had no significant differences. Consequently, hypotheses H8a was rejected because this factor was not statistically significant.

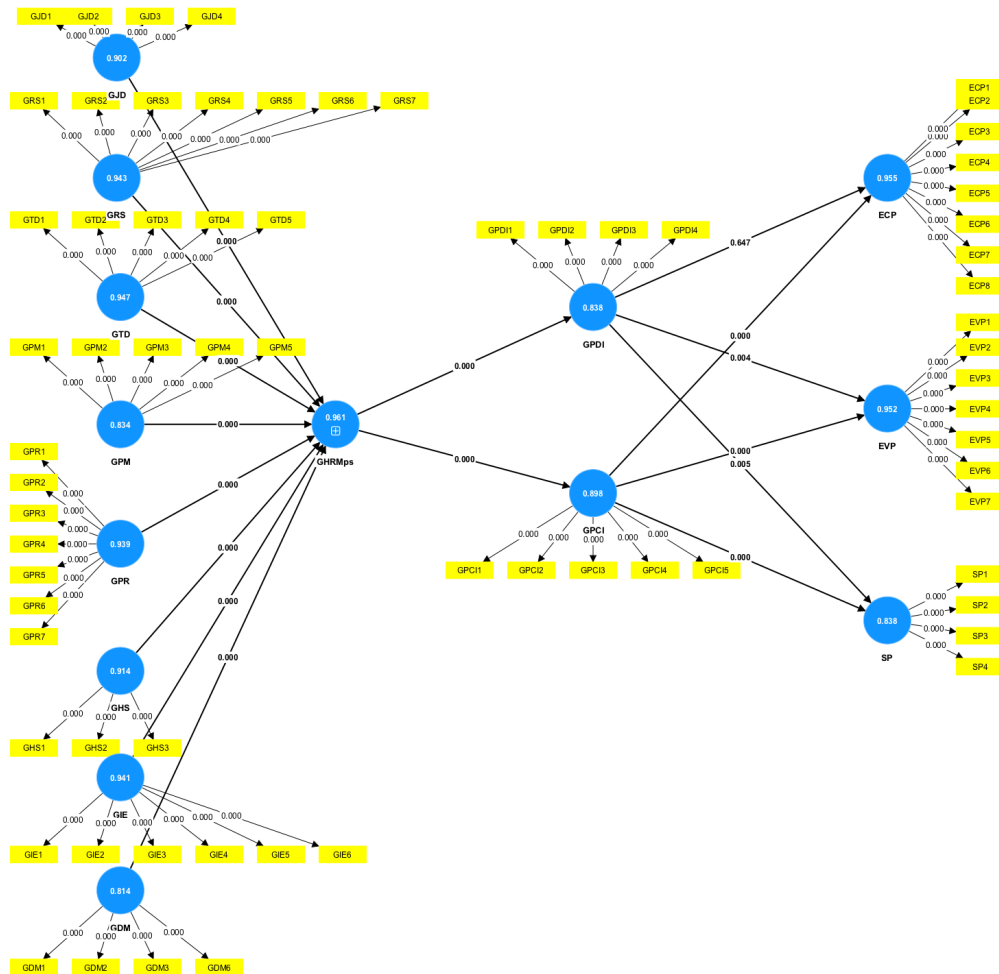
*H9a: GHRM practices positively influences Economic performance through green process innovation.*

*H9b: GHRM practices positively influences Environmental performance through green process innovation.*

**H9c:** *GHRM practices positively influences Social performance through green process innovation.*

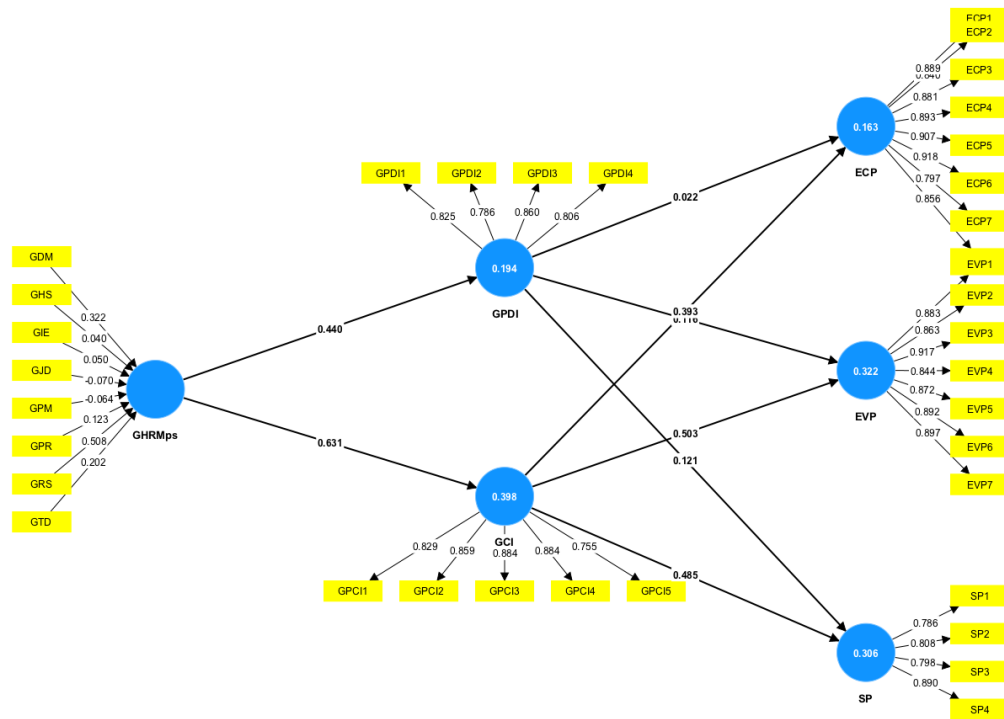
Hypothesis nine was tested. The results showed that all the path coefficients were statistically significant. ECP ( $\beta = 0.248$ ,  $T = 4.875$ ,  $P = 0.000 < 0.01$ ), EVP ( $\beta = 0.317$ ,  $T = 6.012$ ,  $P = 0.000 < 0.01$ ) and SP ( $\beta = 0.306$ ,  $T = 5.320$ ,  $P = 0.000 < 0.01$ ) at 99% confidence level. Therefore, hypotheses H9a, H9b and H9c were fully supported.

**Figure 4.2.** *PLS-SEM model for indirect effects testing – stage 1*



*Source: Author's compilation from Smart PLS, 2023*

**Figure 4.3.** PLS-SEM model for indirect effects testing – stage 2



Source: Author's compilation from Smart PLS, 2023

### 4.3. Discussion

#### 4.3.1. The impact of green HRM practices on green innovation

The results partially confirmed the significant effects of different GHRM practices on green product innovation and green process innovation.

First, green pay and reward, green involvement and empowerment, green discipline management have been found to play a significant role in facilitating the green product innovation. On the other hand, green recruitment and selection, green training and development, green pay and reward, green discipline management show the significant impact on green process innovation. In this study, the author tried to explore the relationship of every single GHRM practices could impact on each green product or green process innovation, the findings found that only three dimensions of GHRM practices in terms of green pay and reward (H1e), green involvement and empowerment (H1g), green discipline management (H1h) exert a significant positive impact on green product innovation. Besides, four dimensions of GHRM practices in terms of green recruitment and selection (H2b), green training and development (H2c), green pay and reward (H2e), green discipline management (H2h) exert a significant positive impact on green process innovation. These outcomes are similar to the finding of Roscoe et al. (2019), Irani et al. (2022), Awan et al. (2023) whereby it was established that there

exists an interaction between green innovation and GHRM practices. However, unlike the study from Ahmeda et al. (2010), Ogbeibu et al. (2020), they found that green recruitment and selection; green performance and compensation; green training, involvement and development have an impact on green product innovation, this study strengthen two more factor of GHRMps in terms of green involvement and empowerment and green discipline management also significant impact on green product innovation.

Second, these findings offered further evidence for previous studies that providing more evidence for the positive effects of GHRM practices on green innovation (Ahmad et al., 2022; Al-Ghazali & Afsar, 2021; Awan et al., 2023; Farooq et al., 2022; Hameed et al., 2022; Jia et al., 2018; Luu, 2023). Furthermore, this study implies that leaders who strive for green product innovation should focus on improving those activities of pay and reward, involvement and empowerment, and discipline management. On the other hand, leaders who strive for green process innovation should focus on improving those activities of green recruitment and selection, green training and development, green pay and reward, green discipline management.

#### ***4.3.2. The impact of green innovation on sustainable performance***

The results also offered insights into how green innovation effect on sustainable performance.

First, the findings of this research affirmed our argument that green product innovation has been found to play a significant role in facilitating environmental performance (H3b) and social performance (H3c). These results align with the earlier studies in the fields (El-Kassar & Singh, 2019; Singh & El-Kassar, 2019; Tantayanubutr & Panjakajornsak, 2017; Wang & Yang, 2021; Weng et al., 2015; Zailani et al., 2015) which highlighted the crucial roles of green product innovation on environmental performance and social performance. Nevertheless, the data does not provide support for hypothesis H3a, despite prior research aiding in the formulation of connections between green product innovation and economic performance (Awwad Al-Shammari et al., 2022; Imran et al., 2023). Within the realm of upscale lodging establishments in Vietnam, it seems that innovating hospitality products does not enhance the economic performance of these organizations. This observation offers fresh perspectives for expanding current research, potentially offering valuable practical implications for managers within luxurious hotels and resorts in Vietnam.

Second, the results of this study unveiled that green process innovation plays an essential role as a fundamental driver of economic performance (H4a), environmental performance (H4b), and social performance (H4c). This finding is consistent with previous research in the field (Awan et al., 2023; Awwad Al-Shammari et al., 2022; Fang et al., 2022;

Tantayanubutr & Panjakajornsak, 2017; Weng et al., 2015; Zailani et al., 2015), which has underscored the pivotal importance of green processes in achieving sustainable performance. These results further validate the positive and significant association between green process innovation and sustainable performance. Organizations are increasingly prioritizing sustainability due to emerging environmental challenges, prompting a shift from traditional to green practices. Consequently, green process innovation in luxurious accommodations can serve as a competitive advantage and contribute to achieving sustainable performance.

#### ***4.3.3. The impact of green HRM practices on sustainable performance***

The suggested connections between GHRM practices and sustainable performance have also received statistical validation.

Initially, in the current, only green recruitment and selection (H5b, H6b, H7b), green training and development (H5c, H6c, H7c), green pay and reward (H5e, H6e, H7e), green discipline management (H5h, H6h, H7h) were found to be significantly related to sustainable performance in terms of economic performance, environmental performance, and social performance. The present articles rely on the premises of the resource-based view theory, which acknowledges that possessing valuable, non-substitutable, and rare resources can confer a competitive advantage that presented by sustainable performance. These findings also are aligned with previous studies in the field (Adubor et al., 2022; Afum et al., 2021; Almemari, 2021; Burlea-Schiopoiu et al., 2022; Khaskhely et al., 2022). Organizations must continually seek fresh methods to enhance their primary human resources including green recruitment and selection, green training and development, green pay and reward, green discipline management. GHRM practices is among the tools enabling competitive advantage, ensuring sustained performance. The most significant finding in this research is by integrating environmental considerations into the green discipline management process, organizations committed to sustainability can create environmentally conscious employees, bolstering their environmental initiatives.

On the contrary, green performance management (H5d, H6d, H7d) and green involvement and empowerment (H5g, H6g, H7g) do not have significant direct impacts on economic performance, environmental performance, and social performance. By comparison, these outcomes diverged from previous research findings that had upheld the assumed connections between those variables (Awwad Al-Shammari et al., 2022; Imran et al., 2023; Jamal et al., 2021; Longoni et al., 2018). Similarly, green job description and analysis (H5a, H6a, H7a) was found to be not related to sustainable performance in terms of economic performance, environmental performance, and social performance, this finding also against the

previous study (Lashari et al., 2022; Malik et al., 2020). Moreover, the aspects of green health and safety (H5f, H6f, H7f) do not demonstrate significant direct impacts on economic, environmental, and social performance. Our investigation represents an initial endeavor to explore the role of green health and safety in enhancing organizational sustainable performance. However, within the scope of our survey, evidence supporting these relationships is lacking. One conceivable explanation could be that leaders striving for sustainable performance primarily prioritize other factors of Green HRM practices, thereby diverting attention away from green health and safety practices. Furthermore, the explanation for this finding can be due to strong Confucianism culture in Vietnam, which encourages learning and sees it as a tool to help people explore their instinctive potentials and achieve sustainable performance (Viengkham et al., 2018). Hence, this discovery mirrors the modern landscape of the tourism industry, demanding precision and reliability in daily operations and service provision (Pham et al., 2020). These results present opportunities for subsequent researchers to explore the potential application of such GHRM practices in enhancing sustainable performance. Additionally, they underscore the necessity of incorporating diverse GHRM practices to comprehensively elucidate leadership effectiveness and organizational outcomes.

#### ***4.3.4. The mediating role of green innovation on the relationship between green HRM practices and sustainable performance***

The results also offered insights into how green product innovation and green process innovation mediate the relationship between GHRMps and sustainable performance.

First, in this study, green product innovation successfully presented the mediating role in the relationship between GHRMps and environmental performance (H8b), and social performance (H8c). Similarly, green process innovation successfully presented the mediating role in the relationship between GHRMps and economic performance (H9a), environmental performance (H9b), and social performance (H9c). These results confirm that both the resource-based view and A-M-O theories are applicable for investigating and affirming the connection between these areas within the hospitality industry. Specifically, this research aligns with prior studies suggesting that green product innovation and green process innovation play pivotal roles as intermediaries in a firm's sustainable performance (Alipour et al., 2022; Ansari et al., 2022; Awan et al., 2023; Awwad Al-Shammari et al., 2022; Fang et al., 2022; Imran et al., 2023; Kuo et al., 2022). Second, this study proposed first light in the scientific field that green product innovation has no significant mediating impact in the relationship between GHRMps and economic performance. This investigation represents an initial endeavor to explore the



mediating role of green product innovation in enhancing the connection between green HRM practices and organizational sustainable performance.

The results also extended the previous findings by reporting how green innovation mediates the relationship between green HRM practices and firm's sustainable performance, in the context of luxurious accommodations in Vietnam, a developing country in the Asia. The findings additionally expanded upon earlier research by demonstrating the role of green innovation especially green product innovation and green process innovation as mediators in the connection between green HRM practices and a firm's sustainable performance. This was observed within the context of upscale lodging establishments in Vietnam, an emerging nation in Asia. No previous research has an in-depth investigation in confirming the role of two dimensions of green innovation, therefore, this study provided one of the first mediation investigations of the theory that green product innovation has no mediating impact on the connection between green HRM practices and organizational sustainable performance. One conceivable explanation could be that the innovating with hotel's products in the hospitality industry may lead to the huge amount of investment cost, for that reason, this changing could not enhance the economic performance.

## CHAPTER 5: CONCLUSIONS AND IMPLICATIONS

### 5.1 Conclusions

This study has introduced a paradigm model to examine how green HRM practices, green innovation, and sustainable performance impact each other and proven it to be appropriate in Vietnam's hospitality industry. Many previous studies have proved the effectiveness of applying green human resource management practices to environmental protection at companies, but there have not been many in-depth studies on this industry. Therefore, this research successfully provides an in-depth study on improving the environmental performance of the “green” hotel by finding solid scientific theoretical foundations, building new models and questionnaires, and proving hypotheses with actual data.

To achieve six research objectives, the present study has undertaken an investigation into the mechanisms through which Green Human Resource Management (GHRM) influences sustainable performance. Previous research has primarily focused on the impact of GHRM on either environmental performance or employee green behavior (Dumont et al., 2017; Guerci & Carollo, 2016). Besides, those related research only focused on some prevalence of green practices such as green training, green recruitment, green pay and reward (Mousa & Othman, 2020; Pham et al., 2020). First research objectives of this study effectively confirmed the existing of less common green HRM practices to extend in order to enhance green innovation, sustainable performance such as green job description and analysis, green performance management, green health and safety, green involvement and empowerment, green discipline management. *Second*, in terms of attaining research objective two, three, and four by evaluating the direct impacts of green HRM practices, green innovation, and sustainable performance, this study also shows some significant interesting relationships between green HRM practices and green innovation, green HRM practices and sustainable performance as well as green innovation and sustainable performance. *Third*, to gain the research objective five by leveraging resource-based view theory, the author successfully examined the mediating role of green innovation including green product innovation and green process innovation in the relationship between GHRM practices and sustainable performance. *Finally*, despite numerous studies on green HRM practices, the exploration within Vietnam's hospitality sector is limited, as highlighted by Pham et al. (2019) and Pham et al. (2020). This study has the potential to deepen our comprehension of effective green HRM practices and green innovation specifically within the management levels of upscale accommodations in Vietnam, aiming to promote sustainable performance encompassing economic, environmental, and social dimensions in their enterprises, through the integration of various theories, this research anticipates contributing to

a holistic understanding of green HRM practices that facilitate green innovation and sustainable performance. Having said that, this research carries theoretical and practical implications, alongside acknowledging its limitations and suggesting directions for future research.

## **5.2. Implications**

### ***5.2.1. Theoretical implications***

This study makes significant efforts to the current scientific world by introducing a new model and proven it to be appropriate in Vietnam's hospitality industry. Numerous prior studies have demonstrated the efficacy of implementing green human resource management practices in fostering environmental performance within companies, but there have not been many in-depth studies on hospitality industry, especially in luxurious corporations. Besides, the results of this research will enhance the existing body of knowledge on green HRM practices, green innovation, and sustainable performance.

Firstly, prior research has been conducted at whether GHRM practices based on the AMO theory which have a favorable effect on innovation to environment (Antonioli et al., 2013), and paradoxical studies has been used for looking into how HRM practices affects sustainable environment (Guerci & Carollo, 2016). This study confirmed the existing of less common green HRM practices to extend in order to enhance green innovation, sustainable performance such as green job description and analysis, green performance management, green health and safety, green involvement and empowerment, green discipline management. Interestingly, from the results of survey, this study presented the strong significant of green discipline management on green innovation and sustainable performance in Vietnam context.

Secondly, despite decades of research and hundreds of publications of how green HRM practices influence environmental performance in an organization, the field has not yet arrived at an understanding of how green HRM practices influence economic performance and social performance. These include theoretical inquiries aimed at enhancing the understanding of existing GHRM literature. Therefore, this study extends SIT theory by investigating deeply into enhancing the sustainable performance of a "green" hotel by establishing robust scientific and theoretical foundations. This study will be a synthesis study that proves the main relationships green HRM practices and not only environmental performance but also economic performance and social performance so that the following studies can refer to and extract guides.

Thirdly, the current study contributes to the existent knowledge through its highlights on the role of green innovation in stimulating sustainable performance and in positively mediating the relationship between green HRM practices and sustainable performance. Based

on AMO theory, this discovery also revealed that implementing GHRM strategies and fostering green innovation contribute to a company's long-term viability. This research indicates that GHRM initiatives, such as green job description and analysis, green performance management, green health and safety, green involvement and empowerment, green discipline management, thereby driving innovation in eco-friendly services, products, and processes, ultimately leading to improved hotel sustainable performance. Therefore, this study advocates for the adoption of GHRM strategies by firms seeking to gain a competitive edge. The findings underscore the importance of proactive GHRM approaches aimed at cultivating, retaining, and attracting environmentally conscious employees to promote both environmental sustainability and innovation, thus positioning the company for competitive advantage.

Lastly, by integrating the concepts of AMO theory and RBV theory, this study developed an overarching and unique conceptual indicating the mediating role of green innovation. Unlike previous studies focusing solely on the correlations between green HRM practices and green innovation, green HRM practices and sustainable performance, and green innovation and sustainable performance, this study introduces an integrated and expansive theoretical framework that delves into the interplay among these variables. Furthermore, this study conducts an examination of these relationships within the realm of luxurious accommodations in Vietnam. Past literature on similar concepts has predominantly centered on Western nations and established knowledge economies, thereby overlooking developing nations and transitioning economies like Vietnam and other Asian countries. The insights into how hospitality establishments in Vietnam cultivate sustainable performance through green HRM practices and green innovation mark an initial stride toward establishing cross-regional and cross-industry comparisons, offering potential avenues for future research.

### ***5.2.2. Managerial implication***

Drawing from the above research findings, there are various practical implications for managers in the hotel management and business sectors. Particularly, the research highlights green innovation as the most influential factor contributing positively to sustainable performance. This study emphasizes the advantages of implementing Green HRM practices and fostering green innovation within the hospitality industry, showcasing its dual benefits encompassing financial, social, and environmental aspects.

Hotels embracing green initiatives should maintain these practices, given their status as a steadily rising trend that increasingly influences tourists' hotel selections. Additionally, ongoing adherence to green practices allows hotels to realize cost efficiencies in various operational aspects, such as electricity, water, and cleaning supplies expenses. In Vietnam and

worldwide, green practices have advanced beyond traditional approaches. With the ongoing evolution of environmental consciousness and responsibility, Vietnamese hotels are increasingly and actively integrating green practices into their operations, tailored to each stage. This includes efforts such as designing guest accommodations with utmost environmental sustainability in mind and embracing the use of eco-friendly materials throughout their ongoing operations.

From the research findings, four factors of GHRMps (green recruitment and selection, green training and development, green pay and reward, green discipline management) have a favour impact on sustainable development. Our research indicates that human resources managers can incorporate green competencies through recruitment and selection processes, as well as by developing and training employees to enhance their green performance. Additionally, human resources managers can cultivate a sense of environmental stewardship among employees by utilizing performance appraisals and implementing reward systems for those who contribute significantly to green initiatives. Moreover, these managers can foster green opportunities by involving employees in the creation of environmental plans, providing training, and encouraging them to take on leadership roles in green initiatives. Utilizing our findings, firm managers can establish a culture of green innovation in both products and processes, thereby promoting exceptional environmental sustainability and green performance.

Furthermore, managers in Vietnam acknowledge the importance of employee dedication for the effective execution of green initiatives in hotels. They realize that without the support and involvement of their staff, the hotel's endeavors to adopt eco-friendly practices would be impractical. They emphasize that the value of embracing green practices lies in the individuals who directly implement them, encompassing every employee across all departments.

This study builds upon and advances previous research on Green Human Resource Management (GHRM). The findings from this research can be utilized to teach about the impact of GHRM not only to students but also to future managers, highlighting its interplay with green innovation and green transformational leadership on a company's environmental performance. Teaching about green innovation has posed challenges due to limited empirical evidence, best practices, and necessary guidelines. Although existing literature recognizes the significance of fostering a green culture within organizations, there remains a scarcity of empirical evidence, such as case studies and surveys, suitable for educational purposes. Our study aims to significantly contribute to the integration of green management education in business schools and universities by providing robust empirical evidence. These research findings can be

incorporated into academic syllabi and course outlines developed by faculty members, aligning with the needs of future managers.

Furthermore, our research furnishes evidence-based insights to inform senior management about the influence of GHRM on green innovation and the environmental performance of an organization. Accordingly, companies should allocate additional resources to bolster environmental performance. Additionally, our findings propose a proactive strategy that companies can employ to enhance environmental performance while ensuring compliance with regulatory authorities.

### **5.3. Limitations and future research directions**

Although this study has achieved its original purpose, there are still some limitations.

Firstly, it's crucial to acknowledge the limited scope of this study, the research exclusively concentrates on hotels and resorts falling within the 4-, and 5-star categories. These constraints imply that the findings may lack the requisite precision and dependability for widespread application across the entire luxurious hospitality sector of Vietnam. To address this, future research could involve collaborations with higher authorities such as the Government, the Vietnam National Administration of Tourism, and the General Statistics Office, among others, to access comprehensive and reliable data sources. This would enable the acquisition of more precise information concerning demographics, economic statistics, cultural aspects, environmental factors, and other significant indicators. Consequently, it would facilitate the development of more detailed research models and the generation of research outcomes that are more pertinent and applicable.

Another issue arises regarding the limitations of the sampling methodology. The use of convenience sampling in data collection diminishes the representativeness of the sample, thereby potentially compromising the reliability of the study's findings and their generalizability to the broader population. To address this concern, future research endeavors can employ random sampling techniques, systematic sampling, augment sample size, integrate various sampling methodologies, and explicitly delineate the constraints and repercussions of their approach in the research report. Additionally, broadening the scope of the study could enhance the inclusiveness of the sample.

The authors simply adapted existing questionnaires from prior studies, making necessary adjustments to align with the context of our country, but without introducing any alterations. In subsequent research, the team intends to revisit the study objectives, refine, and amend the questions, conduct testing and evaluation of the questionnaires, incorporate

supplementary questions, and seek expert guidance. Subsequently, a new questionnaire will be developed that better aligns with the research model.

Finally, this study delved into the roles of green product innovation and green process innovation as two intermediaries between GHRM practices and sustainable performance. Aligning with the Oslo Manual penalties (OECD, 2018), there are further dimensions of innovation such as marketing innovation and organizational innovation. Hence, future research endeavors should focus on examining these relationships concerning green marketing innovation and green organizational innovation at the organizational level. Moreover, considering the perspective of the resource-based view theory, which suggests that employee engagement in green behaviors and a sense of corporate social responsibility can influence sustainable performance, the authors propose that forthcoming studies explore the mediating and moderating effects of pro-environmental behavior and organizational citizenship behavior at both individual and organizational levels.

## REFERENCES

- Adubor, N. V., Adeniji, A. A., Salau, O. P., Olajugba, O. J., & Onibudo, G. O. (2022). Exploring Green Human Resource Adoption and Corporate Sustainability in Nigerian Manufacturing Industry. *Sustainability*, *14*(19). <https://doi.org/10.3390/su141912635>
- 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 and Environmental Management*, *27*(1), 109-125. <https://doi.org/10.1002/csr.1777>
- Afum, E., Agyabeng-Mensah, Y., Opoku Mensah, A., Mensah-Williams, E., Baah, C., & Dacosta, E. (2021). Internal environmental management and green human resource management: significant catalysts for improved corporate reputation and performance. *Benchmarking: An International Journal*, *28*(10), 3074-3101. <https://doi.org/10.1108/BIJ-09-2020-0504>
- Ahmad, I., Ullah, K., & Khan, A. (2022). The impact of green HRM on green creativity: mediating role of pro-environmental behaviors and moderating role of ethical leadership style. *The International Journal of Human Resource Management*, *33*(19), 3789-3821. <https://doi.org/10.1080/09585192.2021.1931938>
- Ahmeda, U., Mozammelb, S., & Zamanc, F. (2010). Green HRM and green innovation: Can green transformational leadership moderate: Case of pharmaceutical firms in Australia. *Education*, *11*(7), 612-617.
- Al-Ghazali, B. M., & Afsar, B. (2021). Retracted: Green human resource management and employees' green creativity: The roles of green behavioral intention and individual green values. *Corporate Social Responsibility and Environmental Management*, *28*(1), 536-536. <https://doi.org/10.1002/csr.1987>
- Alavi, S., & Aghakhani, H. (2023). Identifying the effect of green human resource management practices on lean-agile (LEAGILE) and prioritizing its practices. *International Journal of Productivity and Performance Management*, *72*(3), 599-624. <https://doi.org/10.1108/IJPPM-05-2020-0232>
- Ali, F., Ciftci, O., Nanu, L., Cobanoglu, C., & Ryu, K. (2021). Response Rates In Hospitality Research: An Overview of Current Practice and Suggestions For Future Research. *Cornell Hospitality Quarterly*, *62*(1), 105-120. <https://doi.org/10.1177/1938965520943094>
- Alipour, N., Nazari-Shirkouhi, S., Sangari, M. S., & Vandchali, H. R. (2022). Lean, agile, resilient, and green human resource management: the impact on organizational



- innovation and organizational performance. *Environmental Science and Pollution Research*, 29(55), 82812-82826. <https://doi.org/10.1007/s11356-022-21576-1>
- Almemari, K., Almazrouei, R., & Alnahhal, M. . (2021). The Impact of Green Human Resource Management on the Sustainable Performance of the Manufacturing Companies in the Uae. *Journal of Southwest Jiaotong University*, 56(4), 436-447. <https://doi.org/10.35741/issn.0258-2724.56.4.39>
- Amit, R., & Schoemaker, P. J. H. (1993). Strategic assets and organizational rent. *Strategic Management Journal*, 14(1), 33-46. <https://doi.org/10.1002/smj.4250140105>
- Ansari, N., Zill, E. H., Ali, R., Huma, S., & Baig, A. (2022). The Role of Green Human Resource Management Practices and Eco-innovation in Enhancing the Organizational Performance. *Vision*, 09722629221092133. <https://doi.org/10.1177/09722629221092133>
- Antonioli, D., Mancinelli, S., & Mazzanti, M. (2013). Is environmental innovation embedded within high-performance organisational changes? The role of human resource management and complementarity in green business strategies. *Research Policy*, 42(4), 975-988. <https://doi.org/10.1016/j.respol.2012.12.005>
- Appelbaum, E., Bailey, T., Berg, P., Kalleberg, A. L., & Bailey, T. (2000). Manufacturing advantage: Why high-performance work systems pay off. In: Cornell University Press, New York, United States.
- Arulrajah, A. A., Opatha, H., & Nawaratne, N. (2015). Green human resource management practices: A review. *Sri Lankan Journal of Human Resource Management*, 5(1), 2015.
- Asadi, S., Hussin, A. R. C., & Dahlan, H. M. (2017). Organizational research in the field of Green IT: A systematic literature review from 2007 to 2016. *Telematics and Informatics*, 34(7), 1191-1249. <https://doi.org/10.1016/j.tele.2017.05.009>
- Awan, F. H., Dunnan, L., Jamil, K., & Gul, R. F. (2023). Stimulating environmental performance via green human resource management, green transformational leadership, and green innovation: a mediation-moderation model. *Environmental Science and Pollution Research*, 30(2), 2958-2976. <https://doi.org/10.1007/s11356-022-22424-y>
- Awwad Al-Shammari, A. S., Alshammrei, S., Nawaz, N., & Tayyab, M. (2022). Green Human Resource Management and Sustainable Performance With the Mediating Role of Green Innovation: A Perspective of New Technological Era [Original Research]. *Frontiers in Environmental Science*, 10. <https://doi.org/10.3389/fenvs.2022.901235>
- Backhaus, K. B., Stone, B. A., & Heiner, K. (2002). Exploring the Relationship Between Corporate Social Performance and Employer Attractiveness. *Business & Society*, 41(3), 292-318. <https://doi.org/10.1177/0007650302041003003>

- Barney, J. B., Ketchen, D. J., Wright, M., Sirmon, D. G., Hitt, M. A., Ireland, R. D., & Gilbert, B. A. (2010). Resource Orchestration to Create Competitive Advantage: Breadth, Depth, and Life Cycle Effects. *Journal of Management*, 37(5), 1390-1412. <https://doi.org/10.1177/0149206310385695>
- Bhattacharya, C. B., & Sen, S. (2004). Doing Better at Doing Good: When, Why, and How Consumers Respond to Corporate Social Initiatives. *California Management Review*, 47(1), 9-24. <https://doi.org/10.2307/41166284>
- Bhushan, A. K., & MacKenzie, J. C. (1992). Environmental leadership plus total quality management equals continuous improvement. *Environmental Quality Management*, 1(3), 207-224. <https://doi.org/10.1002/tqem.3310010303>
- Bohdanowicz, P., Zientara, P., & Novotna, E. (2011). International hotel chains and environmental protection: an analysis of Hilton's we care! programme (Europe, 2006–2008). *Journal of Sustainable Tourism*, 19(7), 797-816. <https://doi.org/10.1080/09669582.2010.549566>
- Bombiak, E., & Marciniuk-Kluska, A. (2018). Green Human Resource Management as a Tool for the Sustainable Development of Enterprises: Polish Young Company Experience. *Sustainability*, 10(6).
- Booking.com. (2022). *Các xu hướng định hình du lịch bền vững trong năm 2022*. Retrieved 01 February from <https://partner.booking.com/vi/click-magazine/xu-huong-phân-tích-chuyên-sâu/các-xu-hướng-định-hình-du-lich-bền-vững-trong-năm-2022>
- Bos-Nehles, A. C., Van Riemsdijk, M. J., & Kees Looise, J. (2013). Employee Perceptions of Line Management Performance: Applying the AMO Theory to Explain the Effectiveness of Line Managers' HRM Implementation. *Human Resource Management*, 52(6), 861-877. <https://doi.org/10.1002/hrm.21578>
- Boselie, P., Dietz, G., & Boon, C. (2005). Commonalities and contradictions in HRM and performance research. *Human Resource Management Journal*, 15(3), 67-94. <https://doi.org/10.1111/j.1748-8583.2005.tb00154.x>
- Brinkmann, S. (2013). *Qualitative interviewing*, Oxford University Press, USA.
- 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).
- Chamberlin, E. (1933). *Theory of monopolistic competition*, Harvard University Press, Cambridge, MA.
- Chan, R. Y. K. (2005). Does the Natural-Resource-Based View of the Firm Apply in an Emerging Economy? A Survey of Foreign Invested Enterprises in China\*. *Journal of*

- Management Studies*, 42(3), 625-672. <https://doi.org/10.1111/j.1467-6486.2005.00511.x>
- Chang, C.-H. (2011). The Influence of Corporate Environmental Ethics on Competitive Advantage: The Mediation Role of Green Innovation. *Journal of Business Ethics*, 104(3), 361-370. <https://doi.org/10.1007/s10551-011-0914-x>
- Cheah, J., Amran, A., & Yahya, S. (2019). Internal oriented resources and social enterprises' performance: How can social enterprises help themselves before helping others? *Journal of Cleaner Production*, 211, 607-619. <https://doi.org/10.1016/j.jclepro.2018.11.203>
- Chen, Y.-S., Lai, S.-B., & Wen, C.-T. (2006). The Influence of Green Innovation Performance on Corporate Advantage in Taiwan. *Journal of Business Ethics*, 67(4), 331-339. <https://doi.org/10.1007/s10551-006-9025-5>
- Chiou, T.-Y., Chan, H. K., Lettice, F., & Chung, S. H. (2011). The influence of greening the suppliers and green innovation on environmental performance and competitive advantage in Taiwan. *Transportation Research Part E: Logistics and Transportation Review*, 47(6), 822-836. <https://doi.org/10.1016/j.tre.2011.05.016>
- Chowhan, J. (2016). Unpacking the black box: understanding the relationship between strategy, HRM practices, innovation and organizational performance. *Human Resource Management Journal*, 26(2), 112-133. <https://doi.org/10.1111/1748-8583.12097>
- Clarke, S. (2006). The relationship between safety climate and safety performance: a meta-analytic review. *Journal of occupational health psychology*, 11(4), 315.
- Clemens, B., & Bakstran, L. (2010). A framework of theoretical lenses and strategic purposes to describe relationships among firm environmental strategy, financial performance, and environmental performance. *Management Research Review*, 33(4), 393-405. <https://doi.org/10.1108/01409171011030480>
- Comrey, A. L., & Lee, H. B. (1992). *A first course in factor analysis*, Hillsdale, NJ, Lawrence Erlbaum Associates.
- Creswell, J. W. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*, Sage publications, Thousand Oaks, California, USA.
- Crosbie, L., & Knight, K. (1995). *Strategy for sustainable business: environmental opportunity and strategic choice*, McGraw-Hill Companies.
- Dahiya, R. (2020). Does organisational sustainability policies affect environmental attitude of employees? The missing link of green work climate perceptions. *Business Strategy & Development*, 3(3), 395-403. <https://doi.org/10.1002/bsd2.110>

- Daily, B. F., Bishop, J. W., & Massoud, J. A. (2012). The role of training and empowerment in environmental performance. *International Journal of Operations & Production Management*, 32(5), 631-647. <https://doi.org/10.1108/01443571211226524>
- De Winne, S., & Sels, L. (2010). Interrelationships between human capital, HRM and innovation in Belgian start-ups aiming at an innovation strategy. *The International Journal of Human Resource Management*, 21(11), 1863-1883. <https://doi.org/10.1080/09585192.2010.505088>
- Del Giudice, M., Soto-Acosta, P., Carayannis, E., & Scuotto, V. (2018). Emerging perspectives on business process management (BPM): IT-based processes and ambidextrous organizations, theory and practice. *Business Process Management Journal*, 24(5), 1070-1076. <https://doi.org/10.1108/BPMJ-09-2018-336>
- Dumont, J., Shen, J., & Deng, X. (2017). Effects of Green HRM Practices on Employee Workplace Green Behavior: The Role of Psychological Green Climate and Employee Green Values. *Human Resource Management*, 56(4), 613-627. <https://doi.org/10.1002/hrm.21792>
- Eiadat, Y., Kelly, A., Roche, F., & Eyadat, H. (2008). Green and competitive? An empirical test of the mediating role of environmental innovation strategy. *Journal of World Business*, 43(2), 131-145. <https://doi.org/10.1016/j.jwb.2007.11.012>
- El-Kassar, A.-N., & Singh, S. K. (2019). Green innovation and organizational performance: The influence of big data and the moderating role of management commitment and HR practices. *Technological Forecasting and Social Change*, 144, 483-498. <https://doi.org/10.1016/j.techfore.2017.12.016>
- Elkington, J. (1997). *Cannibals with Forks: the Triple Bottom Line of the 21st Century Business*, New Society Publishers, Oxford.
- Fang, L., Shi, S., Gao, J., & Li, X. (2022). The mediating role of green innovation and green culture in the relationship between green human resource management and environmental performance. *PLOS ONE*, 17(9), e0274820. <https://doi.org/10.1371/journal.pone.0274820>
- Farooq, R., Zhang, Z., Talwar, S., & Dhir, A. (2022). Do green human resource management and self-efficacy facilitate green creativity? A study of luxury hotels and resorts. *Journal of Sustainable Tourism*, 30(4), 824-845. <https://doi.org/10.1080/09669582.2021.1891239>
- Fornell, C., & Larcker, D. F. (1981). Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. *Journal of Marketing Research*, 18(3), 382-388. <https://doi.org/10.1177/002224378101800313>

- Fu, N., Flood, P. C., Bosak, J., Morris, T., & O'Regan, P. (2015). How do high performance work systems influence organizational innovation in professional service firms? *Employee Relations*, 37(2), 209-231. <https://doi.org/10.1108/ER-10-2013-0155>
- Fukey, L. N., & Issac, S. S. (2014). Connect among green, sustainability and hotel industry: a prospective simulation study. *Energy conservation*, 6(8), 296-312.
- Gerhart, B. (2005). Human Resources and Business Performance: Findings, Unanswered Questions, and an Alternative Approach. *Management Revue*, 16(2), 174-185. <http://www.jstor.org/stable/41782038>
- Gorsuch, R. L. (1990). Common Factor Analysis versus Component Analysis: Some Well and Little Known Facts. *Multivariate Behavioral Research*, 25(1), 33-39. [https://doi.org/10.1207/s15327906mbr2501\\_3](https://doi.org/10.1207/s15327906mbr2501_3)
- Green, K. W., & Inman, R. A. (2005). Using a just-in-time selling strategy to strengthen supply chain linkages. *International Journal of Production Research*, 43(16), 3437-3453. <https://doi.org/10.1080/00207540500118035>
- Guerci, M., & Carollo, L. (2016). A paradox view on green human resource management: insights from the Italian context. *The International Journal of Human Resource Management*, 27(2), 212-238. <https://doi.org/10.1080/09585192.2015.1033641>
- Guest, D. E. (2011). Human resource management and performance: still searching for some answers. *Human Resource Management Journal*, 21(1), 3-13. <https://doi.org/10.1111/j.1748-8583.2010.00164.x>
- Haffar, M., & Searcy, C. (2017). Classification of Trade-offs Encountered in the Practice of Corporate Sustainability. *Journal of Business Ethics*, 140(3), 495-522. <https://doi.org/10.1007/s10551-015-2678-1>
- Hair, J. F., Anderson, R. E., Babin, B. J., & Black, W. C. (2010). *Multivariate data analysis: A global perspective* (Vol. 7). In: Upper Saddle River, NJ: Pearson.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice*, 19(2), 139-152. <https://doi.org/10.2753/MTP1069-6679190202>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hair, J. F., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM). *European Business Review*, 26(2), 106-121. <https://doi.org/10.1108/EBR-10-2013-0128>

- Hameed, Z., Naeem, R. M., Hassan, M., Naeem, M., Nazim, M., & Maqbool, A. (2022). How GHRM is related to green creativity? A moderated mediation model of green transformational leadership and green perceived organizational support. *International Journal of Manpower*, 43(3), 595-613. <https://doi.org/10.1108/IJM-05-2020-0244>
- Hart, S. L., & Milstein, M. B. (2003). Creating sustainable value. *Academy of Management Perspectives*, 17(2), 56-67. <https://doi.org/10.5465/ame.2003.10025194>
- Heckler, C. E. (1996). A Step-by-Step Approach to Using the SAS™ System for Factor Analysis and Structural Equation Modeling. *Technometrics*, 38(3), 296-297. <https://doi.org/10.1080/00401706.1996.10484524>
- Hitt, M. A., Ireland, R. D., Sirmon, D. G., & Trahms, C. A. (2011). Strategic Entrepreneurship: Creating Value for Individuals, Organizations, and Society. *Academy of Management Perspectives*, 25(2), 57-75. <https://doi.org/10.5465/amp.25.2.57>
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: a review of four recent studies. *Strategic Management Journal*, 20(2), 195-204. [https://doi.org/10.1002/\(SICI\)1097-0266\(199902\)20:2<195::AID-SMJ13>3.0.CO;2-7](https://doi.org/10.1002/(SICI)1097-0266(199902)20:2<195::AID-SMJ13>3.0.CO;2-7)
- Imran, R., Alraja, M. N., & Khashab, B. (2023). Sustainable Performance and Green Innovation: Green Human Resources Management and Big Data as Antecedents. *IEEE Transactions on Engineering Management*, 70(12), 4191-4206. <https://doi.org/10.1109/TEM.2021.3114256>
- Irani, F., Kiliç, 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>
- Jabbour, C. J. C. (2011). How green are HRM practices, organizational culture, learning and teamwork? A Brazilian study. *Industrial and Commercial Training*, 43(2), 98-105. <https://doi.org/10.1108/00197851111108926>
- Jabbour, C. J. C., & Santos, F. C. A. (2008). Relationships between human resource dimensions and environmental management in companies: proposal of a model. *Journal of Cleaner Production*, 16(1), 51-58. <https://doi.org/10.1016/j.jclepro.2006.07.025>
- Jabbour, C. J. C., Santos, F. C. A., & Nagano, M. S. (2010). Contributions of HRM throughout the stages of environmental management: methodological triangulation applied to companies in Brazil. *The International Journal of Human Resource Management*, 21(7), 1049-1089. <https://doi.org/10.1080/09585191003783512>
- Jacob, S., & Furgerson, S. (2012). Writing Interview Protocols and Conducting Interviews: tips for students new to the field of qualitative research in *The Qualitative Report*, Vol. 17.



- Jadhav, J. R., Mantha, S., & Rane, S. B. (2013). Practice bundles for integrated green-lean manufacturing systems. *International Journal of Computer Applications*, 7, 975-8887.
- Jamal, T., Zahid, M., Martins, J. M., Mata, M. N., Rahman, H. U., & Mata, P. N. (2021). Perceived Green Human Resource Management Practices and Corporate Sustainability: Multigroup Analysis and Major Industries Perspectives. *Sustainability*, 13(6).
- Jia, J., Liu, H., Chin, T., & Hu, D. (2018). The Continuous Mediating Effects of GHRM on Employees' Green Passion via Transformational Leadership and Green Creativity. *Sustainability*, 10(9).
- Kammerer, D. (2009). The effects of customer benefit and regulation on environmental product innovation.: Empirical evidence from appliance manufacturers in Germany. *Ecological Economics*, 68(8), 2285-2295. <https://doi.org/10.1016/j.ecolecon.2009.02.016>
- Kang, K. H., Lee, S., & Huh, C. (2010). Impacts of positive and negative corporate social responsibility activities on company performance in the hospitality industry. *International Journal of Hospitality Management*, 29(1), 72-82. <https://doi.org/10.1016/j.ijhm.2009.05.006>
- Kautish, P., & Sharma, R. (2020). Determinants of pro-environmental behavior and environmentally conscious consumer behavior: An empirical investigation from emerging market. *Business Strategy & Development*, 3(1), 112-127. <https://doi.org/10.1002/bsd2.82>
- Khaskhely, M. K., Qazi, S. W., Khan, N. R., Hashmi, T., & Chang, A. A. R. (2022). Understanding the Impact of Green Human Resource Management Practices and Dynamic Sustainable Capabilities on Corporate Sustainable Performance: Evidence From the Manufacturing Sector [Original Research]. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.844488>
- Khurshid, R., & Darzi, M. A. (2016). Go green with green human resource management practices. *Clear International Journal of Research in Commerce & Management*, 7(1).
- Kim, Y. J., Kim, W. G., Choi, H.-M., & Phetvaroon, K. (2019). The effect of green human resource management on hotel employees' eco-friendly behavior and environmental performance. *International Journal of Hospitality Management*, 76, 83-93. <https://doi.org/10.1016/j.ijhm.2018.04.007>
- Kuo, Y.-K., Khan, T. I., Islam, S. U., Abdullah, F. Z., Pradana, M., & Kaewsang-on, R. (2022). Impact of Green HRM Practices on Environmental Performance: The Mediating Role of Green Innovation [Original Research]. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.916723>

- Lashari, I. A., Li, Q., Maitlo, Q., Bughio, F. A., Jhatial, A. A., & Rashidi Syed, O. (2022). Environmental sustainability through green HRM: Measuring the perception of university managers [Original Research]. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1007710>
- Li, Y. (2014). Environmental innovation practices and performance: moderating effect of resource commitment. *Journal of Cleaner Production*, 66, 450-458. <https://doi.org/10.1016/j.jclepro.2013.11.044>
- Lin, R.-J., Chen, R.-H., & Huang, F.-H. (2014). Green innovation in the automobile industry. *Industrial Management & Data Systems*, 114(6), 886-903. <https://doi.org/10.1108/IMDS-11-2013-0482>
- Longoni, A., Luzzini, D., & Guerci, M. (2018). Deploying Environmental Management Across Functions: The Relationship Between Green Human Resource Management and Green Supply Chain Management. *Journal of Business Ethics*, 151(4), 1081-1095. <https://doi.org/10.1007/s10551-016-3228-1>
- Luu, T. T. (2023). Can green creativity be fostered? Unfolding the roles of perceived green human resource management practices, dual mediation paths, and perceived environmentally-specific authentic leadership. *The International Journal of Human Resource Management*, 34(6), 1246-1273. <https://doi.org/10.1080/09585192.2021.1986107>
- Mack, N., Woodsong, C., MacQueen, K. M., Guest, G., & Namey, E. (2005). Module 2: participant observation. *Qualitative research methods: A data collector's field guide*, 14-27.
- Maletic, M., Maletic, D., Dahlgaard, J., Dahlgaard-Park, S. M., & Gomišček, B. (2015). Do corporate sustainability practices enhance organizational economic performance? *International Journal of Quality and Service Sciences*, 7(2/3), 184-200. <https://doi.org/10.1108/IJQSS-02-2015-0025>
- Malik, S. Y., Cao, Y., Mughal, Y. H., Kundi, G. M., Mughal, M. H., & Ramayah, T. (2020). Pathways towards Sustainability in Organizations: Empirical Evidence on the Role of Green Human Resource Management Practices and Green Intellectual Capital. *Sustainability*, 12(8).
- Malik, S. Y., Hayat Mughal, Y., Azam, T., Cao, Y., Wan, Z., Zhu, H., & Thurasamy, R. (2021). Corporate Social Responsibility, Green Human Resources Management, and Sustainable Performance: Is Organizational Citizenship Behavior towards Environment the Missing Link? *Sustainability*, 13(3).



- 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>
- Mehta, K., & Chugan, P. K. (2015). Green HRM in pursuit of environmentally sustainable business. *Pursuit of Environmentally Sustainable Business (June 1, 2015)*. *Universal Journal of Industrial and Business Management*, 3(3), 74-81.
- Melnyk, S. A., Sroufe, R. P., & Calantone, R. (2003). Assessing the impact of environmental management systems on corporate and environmental performance. *Journal of Operations Management*, 21(3), 329-351. [https://doi.org/10.1016/S0272-6963\(02\)00109-2](https://doi.org/10.1016/S0272-6963(02)00109-2)
- Mensah, I. (2006). Environmental management practices among hotels in the greater Accra region. *International Journal of Hospitality Management*, 25(3), 414-431. <https://doi.org/10.1016/j.ijhm.2005.02.003>
- Milliman, J., & Clair, J. (2017). Best environmental HRM practices in the US. In *Greening people* (pp. 49-73). Routledge, London, United Kingdom.
- Montabon, F., Sroufe, R., & Narasimhan, R. (2007). An examination of corporate reporting, environmental management practices and firm performance. *Journal of Operations Management*, 25(5), 998-1014. <https://doi.org/10.1016/j.jom.2006.10.003>
- Mousa, S. K., & Othman, M. (2020). The impact of green human resource management practices on sustainable performance in healthcare organisations: A conceptual framework. *Journal of Cleaner Production*, 243, 118595. <https://doi.org/10.1016/j.jclepro.2019.118595>
- Nejati, M., Rabiei, S., & Chiappetta Jabbour, C. J. (2017). Envisioning the invisible: Understanding the synergy between green human resource management and green supply chain management in manufacturing firms in Iran in light of the moderating effect of employees' resistance to change. *Journal of Cleaner Production*, 168, 163-172. <https://doi.org/10.1016/j.jclepro.2017.08.213>
- O'Donohue, W., & Torugsa, N. (2016). The moderating effect of 'Green' HRM on the association between proactive environmental management and financial performance in small firms. *The International Journal of Human Resource Management*, 27(2), 239-261. <https://doi.org/10.1080/09585192.2015.1063078>
- Oates, M. (1996). Psychiatric services for women following childbirth. *International Review of Psychiatry*, 8(1), 87-98. <https://doi.org/10.3109/09540269609037821>
- OECD. (2018). *Oslo Manual 2018: Guidelines For Collecting, Reporting And Using Data On Innovation, 4th Edition*. Retrieved 17 April from <https://www.oecd->

[ilibrary.org/docserver/9789264304604-en.pdf?expires=1681701106&id=id&accname=guest&checksum=0CB3E413D64155DBBFE489765CE37889](https://ilibrary.org/docserver/9789264304604-en.pdf?expires=1681701106&id=id&accname=guest&checksum=0CB3E413D64155DBBFE489765CE37889)

- Ogbeibu, S., Emelifeonwu, J., Senadjki, A., Gaskin, J., & Kaivo-oja, J. (2020). Technological turbulence and greening of team creativity, product innovation, and human resource management: Implications for sustainability. *Journal of Cleaner Production*, 244, 118703. <https://doi.org/10.1016/j.jclepro.2019.118703>
- Onwuegbuzie, A. J., & Leech, N. L. (2005). On Becoming a Pragmatic Researcher: The Importance of Combining Quantitative and Qualitative Research Methodologies. *International Journal of Social Research Methodology*, 8(5), 375-387. <https://doi.org/10.1080/13645570500402447>
- Opatha, H., & Arulrajah, A. A. (2014). Green human resource management: Simplified general reflections. *International Business Research*, 7(8), 101-112.
- Opatha, H. H. P. (2013). Green human resource management a simplified introduction. *Proceedings of the HR Dialogue; Department of HRM, Faculty of Management Studies and Commerce, University of Sri Jayewardenepura: Nugegoda, Sri Lanka.*
- Patton, M. Q. (2015). *Qualitative research & evaluation methods (4th ed.)*, Sage publications, Thousand Oaks, California, USA.
- Penrose, E. (1959). *The Theory of the Growth of the Firm*. Blackwell: Oxford.
- Pham, N. T., Tučková, Z., & Chiappetta Jabbour, C. J. (2019). Greening the hospitality industry: How do green human resource management practices influence organizational citizenship behavior in hotels? A mixed-methods study. *Tourism Management*, 72, 386-399. <https://doi.org/10.1016/j.tourman.2018.12.008>
- Pham, N. T., Vo Thanh, T., Tučková, Z., & Thuy, V. T. N. (2020). The role of green human resource management in driving hotel's environmental performance: Interaction and mediation analysis. *International Journal of Hospitality Management*, 88, 102392. <https://doi.org/10.1016/j.ijhm.2019.102392>
- Priem, R. L., & Butler, J. E. (2001). Is the Resource-Based "View" a Useful Perspective for Strategic Management Research? *Academy of Management Review*, 26(1), 22-40. <https://doi.org/10.5465/amr.2001.4011928>
- Quazi, H. A. (1999). Implementation of an environmental management system: the experience of companies operating in Singapore. *Industrial Management & Data Systems*, 99(7), 302-311. <https://doi.org/10.1108/02635579910262526>

- Rahman, I., Reynolds, D., & Svaren, S. (2012). How “green” are North American hotels? An exploration of low-cost adoption practices. *International Journal of Hospitality Management*, 31(3), 720-727. <https://doi.org/10.1016/j.ijhm.2011.09.008>
- Rani, S., & Mishra, K. (2014). Green HRM: Practices and strategic implementation in the organizations. *International Journal on Recent and Innovation Trends in Computing and Communication*, 2(11), 3633-3639.
- 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>
- Renwick, D., Redman, T., & Maguire, S. (2008). Green HRM: A review, process model, and research agenda. *University of Sheffield Management School Discussion Paper*, 1(1), 1-46.
- Renwick, D. W. S., Jabbour, C. J. C., Muller-Camen, M., Redman, T., & Wilkinson, A. (2016). Contemporary developments in Green (environmental) HRM scholarship. *The International Journal of Human Resource Management*, 27(2), 114-128. <https://doi.org/10.1080/09585192.2015.1105844>
- Renwick, D. W. S., Redman, T., & Maguire, S. (2013). Green Human Resource Management: A Review and Research Agenda\*. *International Journal of Management Reviews*, 15(1), 1-14. <https://doi.org/10.1111/j.1468-2370.2011.00328.x>
- Rezaei-Moghaddam, K. (2016). Green management of human resources in organizations: an approach to the sustainable environmental management. *Journal of Agricultural Technology*, 12(3).
- Rigdon, E. E. (1998). Structural equation modeling, in Marcoulides GA *Modern methods for business research*, Erlbaum, Mahwah, 251-294.
- Robinson, J. (1933). *The Economics of Imperfect Competition*, Macmillan Press, London.
- Roscoe, S., Subramanian, N., Jabbour, C. J. C., & 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>
- Salzmann, O., Ionescu-somers, A., & Steger, U. (2005). The Business Case for Corporate Sustainability:: Literature Review and Research Options. *European Management Journal*, 23(1), 27-36. <https://doi.org/10.1016/j.emj.2004.12.007>
- Sarkis, J., Gonzalez-Torre, P., & Adenso-Diaz, B. (2010). Stakeholder pressure and the adoption of environmental practices: The mediating effect of training. *Journal of*

<https://doi.org/https://doi.org/10.1016/j.jom.2009.10.001>

- Seeck, H., & Diehl, M.-R. (2017). A literature review on HRM and innovation – taking stock and future directions. *The International Journal of Human Resource Management*, 28(6), 913-944. <https://doi.org/10.1080/09585192.2016.1143862>
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*, John Wiley & Sons, New York, United States.
- Sezen, B., & Çankaya, S. Y. (2013). Effects of Green Manufacturing and Eco-innovation on Sustainability Performance. *Procedia - Social and Behavioral Sciences*, 99, 154-163. <https://doi.org/10.1016/j.sbspro.2013.10.481>
- Shah, M. (2019). Green human resource management: Development of a valid measurement scale. *Business Strategy and the Environment*, 28(5), 771-785. <https://doi.org/10.1002/bse.2279>
- Shipton, H., Fay, D., West, M., Patterson, M., & Birdi, K. (2005). Managing People to Promote Innovation. *Creativity and Innovation Management*, 14(2), 118-128. <https://doi.org/10.1111/j.1467-8691.2005.00332.x>
- Singh, S. K., & El-Kassar, A.-N. (2019). Role of big data analytics in developing sustainable capabilities. *Journal of Cleaner Production*, 213, 1264-1273. <https://doi.org/10.1016/j.jclepro.2018.12.199>
- Tadić, I., & Pivac, S. (2014). Defining human resources “bundles” and its’ correlation with companies’ financial performances. *International Journal of Economics and Management Engineering*, 8(4), 1032-1036.
- Tajfel, H., Turner, J. C., Austin, W. G., & Worchel, S. (1979). An integrative theory of intergroup conflict. *Organizational identity: A reader*, 56(65), 9780203505984-9780203505916.
- Tang, G., Chen, Y., Jiang, Y., Paillé, P., & Jia, J. (2018). Green human resource management practices: scale development and validity. *Asia Pacific Journal of Human Resources*, 56(1), 31-55. <https://doi.org/10.1111/1744-7941.12147>
- Tantayanubutr, M., & Panjakajornsak, V. (2017). Impact of green innovation on the sustainable performance of Thai food industry. *Business and Economic Horizons*, 13(2), 192-209.
- Tashakkori, A., & Teddlie, C. (1998). *Mixed methodology: Combining qualitative and quantitative approaches* (Vol. 46), sage.
- Verburg, R. M., Den Hartog, D. N., & Koopman, P. L. (2007). Configurations of human resource management practices: a model and test of internal fit. *The International*

- Journal of Human Resource Management*, 18(2), 184-208.  
<https://doi.org/10.1080/09585190601102349>
- Viengkham, D., Baumann, C., & Winzar, H. (2018). Confucianism: measurement and association with workforce performance. *Cross Cultural & Strategic Management*, 25(2), 337-374. <https://doi.org/10.1108/CCSM-06-2017-0078>
- VNAT. (2019). *Sáu tháng đầu năm, Ngành du lịch Việt Nam đón 8,5 triệu lượt khách quốc tế*. Retrieved 01 February from <https://vietnamtourism.gov.vn/post/29564>
- Wagner, M. (2013). 'Green' Human Resource Benefits: Do they Matter as Determinants of Environmental Management System Implementation? *Journal of Business Ethics*, 114(3), 443-456. <https://doi.org/10.1007/s10551-012-1356-9>
- Wang, Y., & Yang, Y. (2021). Analyzing the green innovation practices based on sustainability performance indicators: a Chinese manufacturing industry case. *Environmental Science and Pollution Research*, 28(1), 1181-1203. <https://doi.org/10.1007/s11356-020-10531-7>
- Wehrmeyer, W. (2017). *Greening people: Human resources and environmental management*, Routledge, London, United Kingdom.
- Weng, H.-H., Chen, J.-S., & Chen, P.-C. (2015). Effects of Green Innovation on Environmental and Corporate Performance: A Stakeholder Perspective. *Sustainability*, 7(5), 4997-5026.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171-180. <https://doi.org/10.1002/smj.4250050207>
- Wood, G., Brewster, C., & Brookes, M. (2014). *Human resource management and the institutional perspective*, Routledge, London, United Kingdom.
- Xie, X., Huo, J., & Zou, H. (2019). Green process innovation, green product innovation, and corporate financial performance: A content analysis method. *Journal of Business Research*, 101, 697-706. <https://doi.org/10.1016/j.jbusres.2019.01.010>
- 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>
- Zailani, S., Govindan, K., Iranmanesh, M., Shaharudin, M. R., & Sia Chong, Y. (2015). Green innovation adoption in automotive supply chain: the Malaysian case. *Journal of Cleaner Production*, 108, 1115-1122. <https://doi.org/10.1016/j.jclepro.2015.06.039>
- Zhou, Y., Hong, Y., & Liu, J. (2013). Internal Commitment or External Collaboration? The Impact of Human Resource Management Systems on Firm Innovation and

Performance. *Human Resource Management*, 52(2), 263-288.  
<https://doi.org/10.1002/hrm.21527>

Zhu, Q., & Sarkis, J. (2004). Relationships between operational practices and performance among early adopters of green supply chain management practices in Chinese manufacturing enterprises. *Journal of Operations Management*, 22(3), 265-289.  
<https://doi.org/10.1016/j.jom.2004.01.005>

Zhu, Q., Sarkis, J., & Lai, K.-h. (2008). Confirmation of a measurement model for green supply chain management practices implementation. *International Journal of Production Economics*, 111(2), 261-273. <https://doi.org/10.1016/j.ijpe.2006.11.029>