

# **Impact of Green Training on Environmental Performance: An Understanding of Mediating Model in Perspective of Hotel Industry**



**By:**

***HAMZA KHAN***

***# 01-322201-002***

**(MBA /HUMAN RESOURCE MANAGEMENT)**

**Supervisor:**

***(Miss Zahra Saleem)***

**Department of Business Studies**

**Bahria University Islamabad**

**Spring -2022**

*Majors: HRM*

*S.No. 25*

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***Dure Adan***

***# 01-322201-002***

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## ACKNOWLEDGEMENT

In the name of ALLAH Almighty the most beneficent, the most merciful, I am very thankful to ALLAH Almighty who showers his countless blessing upon me all the time and made me able to do work hard and achieve my goals and to do a thesis to complete my degree is one of them.

I offer very special praise for our beloved Holy Prophet HAZRAT MUHAMMAD (S.A.W.W) who is the symbol of knowledge and guidance for humanity as a whole. I am also indebted to everyone who helped me during this period of study. I wish to express my gratitude to my research supervisor **xxxx** for his kindness, guidance, supervision, professional support, and continuous assistance that helped me greatly to complete this journey on time. From the core of my heart, I am very thankful to my parents, siblings, and beloved ones, whose prayers are always with me and played an important role in my success.

**Name**

## DECLARATION

I am **Hamza Khan**, I thus announce that the topic of my MBA thesis is " **Impact of Green Training on Environmental Performance: an understanding of mediating moderating model in perspective of Hotel Industry**" and I hereby declare that all the pertinent information in my thesis is original and does not appear in any other university's thesis. I am the sole author of this thesis.

**Name of an author:**

**Hamza Khan**

Date:

## ABSTRACT

All our world, economies are facing the environmental issues. In this regard, green human resource practices helps the business to improve the environmental performance. However, the mechanism through which green human researches practise effect the environmental performance in not yet clear. Therefore, this study develop an intervening mechanism to improve the environmental performance through the perceived control behaviour, perceived organizational support, and organizational citizenship behaviour and employee commitment. This study consider the hotels employees, from the two province Punjab and KPK, and collect the data from the 367 employees from the 3 to 5 star hotels. This study apply the simple random sampling to collect the data from top management level employees. To analyse the data, this study employ the SMART PLS software. The results of the analysis show that all the direct hypotheses are accepted, except the impact of Perceived control behaviour on organizational citizenship behaviour. In addition, all the intervening variable mediates the relationship between the green training and environment performance. At the end this study provide its implications, limitations and future directions.

**Keywords:**

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## CHAPTER 1: INTRODUCTION

### 1.1: Background

In this era, economies are facing the environmental and sustainability issues. In this regard, to meet the environmental challenges, organizations are motivating the environmentally responsible management applications, such as, in the hospitality industry (X. Ouyang, Liu, & Gui, 2021; Z. Ouyang, Wei, & Chi, 2019; Pham, Thanh, Tučková, & Thuy, 2020), due to the comparative business environment, companies must be efficient along with the responsibility of environment (Yong et al., 2019). It is strategically essential for the businesses to implement the environmental management, as responding to the environmental changes may increase their services and product demands among the customers, which in return, provide them a competitive advantage (Molina-Azorín et al., 2015). To address the environmental concerns, organizations adopt the different approaches, such as, technological approach (Chan et al., 2020), innovation approach (Rehman, Kraus, Shah, Khanin, & Mahto, 2021), corporate social responsibility approach (Kraus, Rehman, & García, 2020). However, limited studies analyze the analyze the indirect impact if green training on environmental performance, through the intervening role of perceived control behaviour (PCB), perceived organizational support (POS), and organizational citizenship behaviour (OCBE) and employee commitment (EC). As, green HRM play a key role to respond the environmental concerns and helps the business to achieve the organizational objectives (Paillé et al., 2014).

The 'human dimension' is of vital significance for the effective take-up and execution of cleaner creations (Jabbour et al., 2019) as environmental performance improvements are not possible to achieve in absence of employees dedication (Nejati et al., 2017). Assuredly, such improvements are significantly based upon employees' reception of these new practices and

conduct. (Boiral et al., 2015). Thus, training in this regard bears primary importance among other methodologies which help HRM to develop assistance for Environment management drives. (Daily et al., 2007; Brío et al., 2008, Jabbour, 2013).

Over the length and breadth of time, human resources' (HRs') ability to study employee's eco-friendly behavior (Kim et al., 2019; Pham, Thanh, Tuc̣ková, & Thuy, 2019) and consumers eco-friendly behaviors and compliance to spend for it (Baker, Davis, & Weaver, 2014) has been focused by researching green training. Nevertheless, there is an intense need to study the effect of green training on environment performance (EP) thoroughly. To elaborate the relationship among these, the current study utilized the sequential mediation process which will be beneficial in comprehending the idea that how GT aids the uplifting of environmental performance.

To carve organizations' reputations and competitive advantages, sustainable environmental practices have become a compulsion. (Paille' et al., 2014; Tang et al., 2018). Organizations have highlighted the significance of employee involvement in their attempts to upgrade sustainable performance through targeting waste reduction. Also, ensuring the optimal utilization of energy and resources. (Davis et al., 2020; El-Kassar and Singh, 2018; Ojo et al., 2020). In addition to this, a recent study showed a very positive trend of adapting Green Human Resource Management (GHRM) implementations to aid employee engagement in sustainable behavior (Frangieh and Yaacoub, 2019).GHRM acts as a catalyst in achieving organizations' environmental goals by coordinating HRM practices such as training, recruitment, participation, compensation, and performance management. (Ojo and Raman, 2019; Tang et al., 2018).

Whether employees take the social pressure or not, they can still gain benefits and opportunities from the green training. The impact of an individual's state of mind towards the

organization and environment is likely to be persuaded by green training as they are encouraged to perform an anticipated task. The commitment of the employees towards the environment depicts the execution of knowledge gained on environmental issues by trained individuals (Paillé, Chen, Boiral, & Jin, 2014). Hence, to perceive organizational citizenship behavior and environment commitment employee perceived behavioral control (PBC) is essential to uplift green training.

Indeed, training is a process of nurturing the employees, as in training the organization spends their time and efforts to teach the unknown or something new to the employees. Providing your employees with the best training opportunities shows the signifying HRM customs in the organization which end up gaining perceived organizational support (POS). Thus, the employees realize the fact that the employer supports the wellbeing and growth of employees which increases POS. beneficially, if the employees become aware of the fact that securing the environment is an issue in real and take every measure to ensure environmental safety, they will be able to convince the employer to facilitate their environmental distress. The linkage between support and commitment depicts the same kind of linkage between the employer and the employee. Here, POS shows the degree of commitment of the employer to the employees while on the other hand devotion to the organization depicts the employees' commitment to their employer. Consequently, green training enhances OCB and OC through POS, which in return escalates the environmental performance. To be more precise, introducing such strategies, which can evaluate employees' green performance, would stimulate employees' behavior with organizational objectives. (Guerci et al., 2016). Innovation in environmental practices can also be achieved by employees' involvement opportunities, provided by the employer, in the green activities. (Daily et al., 2012).it also motivates them to play their part proactively in pollution

prevention efforts (Govindarajulu and Daily, 2004). To escalate the environmental performance, employees' involvement is mandatory, specifically employees citizenship behaviour (Robertson & Barling, 2017), for the reason that these customs play their part to undertake environmental concerns and escalate organizations sustainable advancements (De Groot & Steg, 2010).

## **1.2: Hotel Industry in Pakistan**

The hospitality and tourism industry is considered as the backbone of developed as well as emerging economies. In Asia, the tourism industry is growing rapidly and substantially contributing to the growth of the economies. Pakistan was listed no. 01 on the world's top tourist destinations chat for the year 2020 by US Travel Magazine. However, according to World Travel and Tourism Council 2021, the industry is contributing just 6.9% to the GDP of Pakistan. On the other hand, Malaysia is yielding enormous GDP share out of tourism and hospitality (Mohammed & Rashid, 2018) and contributing nearly 20 billion US\$ with 13.8% towards the GDP (Bhuiyan, Siwar, & Ismail, 2013). The notable difference between the GDP growth rates of both the countries might be because of their hospitality and tourism industry's organizational structure, legislative policies, business approaches, human resources development, and quality of employees' outcomes.

## **1.3: Problem Statement**

Environmental concerns around the globe have gained significant importance in the last two decades. The raised environmental issues have not been properly addressed which depicts the inability of the people in the particular concern. Human impact and industrial impacts have played as a catalyst to environmental issues.

These issues are being addressed and caused in different economies differently. Lie the rising economies and the raised economies both address the problem in their ways. Literature of

cleaner production shows that, for improving the environmental performance of the organization, it is important to provide employees with specific green-related competencies and to buy their commitment towards the green cause.

Also, the public concerns about the unfavorable effects of business activities in social terms have been voiced increasingly over the last few decades tremendously (Bsumek et al., 2014; Li et al., 2012). Keen interest of different stakeholders has been noticed in studying environmental management implementation till date but it has also been observed that very exceptional studies peeped into the relationship of environmental performance EP in the context of tourism and hotel industries for developing countries like Pakistan. Numerous interveners are highlighting their concerns about an environmental worsening as a result of organizational operations which are earning hefty amounts of profits with them (Bsumek et al., 2014). To earn goodwill, it is kind of essential for business organizations to contribute to the environment by diminishing the harm caused by organizational operations (Zhang et al., 2019). Organizations around the globe are taking different measures to minimize environmental problems caused by their activities (Yadav et al. 2017).

Pakistan also faces unique problems because of pollution in the environment. Pakistan is 169th out of 180 countries according to the 2018 Environmental Performance Index (EPI). In 2016, environmental pollution increased significantly, with Pakistan being one of the 30 most polluted countries in the world. Two Pakistani metropolises rank among the world's most polluted, according to the United Nations (Barletta et al., 2017). Two of the major industries contributing to raising environmental pollution are 1- the manufacturing industries 2-the hospitality industry.

The wastes produced by the manufacturing firms are tangible and are in accounts of almost every human being. Measures have been taken and research is being conducted to explore every possible aspect of betterment that can be created for the environment. While the hospitality industry, although being explored widely, needs a keen focus to ponder upon every aspect of change that can enhance EP and sustainability. Tourism boost in Pakistan in the last five years has also been observed, which resulted in the boost of the hospitality industry of Pakistan. Major Reasons for the Problem are Low GT, Low organizational support, Lack of environmental commitment, and low PCB and OCB

Prior research has investigated significantly the impact of corporate governance (Walls et al., 2012), CSR (Chuang and Huang, 2018), IT (Wang et al., 2015), etc. on EP. However, the impact of GT on EP in context to 3star 4star and 5star hotels in a country like Pakistan where tourism is getting a boost by leaps and bounds is still questionable. In this study, we will cater to the issues created in the environment by the hospitality industry in the Pakistani Context.

#### **1.4: Research Objective**

The purpose of this research is to empirically analyse the theoretical model by evaluating green training, PCB, POS, OCBE, EC, and EP are integrated through utilizing the resource-based view. Thereby the present study analyses the effect of GT on environment performance with consideration of the intervening role of PCB, POS, OCBE, EC. The major reason to conduct this study is to understand the sequential mediating mechanisms, used in this study, along with the association of GT, and that will probably serve as the solution for the problematic and less focused areas as highlighted in the hotel industry.

RO1: To find out the impact of Green Training on Perceived Control Behavior.

RO2: To find out the impact of Green Training on Perceived Organizational Support.

RO3: To analyze the impact of Green Training on Organizational Citizenship Behavior of Environment.

RO4: To find out the impact of Green Training on Employee Commitment.

RO5: To find out the impact of Green Training on Environment Performance.

RO6: To examine the impact of Perceived Control Behavior on Organizational Citizenship Behavior of Environment.

RO7: To find out the impact of Perceived Control Behavior on Employee Commitment.

RO8: To find out the impact of Perceived Organizational Support on Organizational Citizenship Behavior of Environment.

RO9: To find out the impact of Perceived Organizational Support and Employee Commitment.

RO10: To find out the impact of Organizational Citizenship Behavior of Environment on Environment Performance.

RO11: To find out the impact of Employee Commitment on Environment Performance.

RO12: To find out mediating impact of PCBE, OCBE, POS, and EC between GT and EP.

### **1.5: Research Questions**

The main research question is, what is the impact of GT on CEP through examining the mediating roles of CE, POS, EEC, and OCBE, also what is the moderating effect of GEI on the relationship of GT and CEP, GT and OCBE, OCBE and CEP.

RQ1: What is the impact of Green Training on Perceived Control Behavior?

RQ2: What is the impact of Green Training on Perceived Organizational Support?



RQ3: What is the impact of Green Training on Organizational Citizenship Behavior of Environment?

RQ4: What is the impact of Green Training on Employee Commitment?

RQ5: What is the impact of Green Training on Environment Performance?

RQ6: What is the impact of Perceived Control Behavior on Organizational Citizenship Behavior of Environment?

RQ7: What is the impact of Perceived Control Behavior on Employee Commitment?

RQ8: What is the impact of Perceived Organizational Support on Organizational Citizenship Behavior of Environment?

RQ9: What is the impact of Perceived Organizational Support and Employee Commitment?

RQ10: What is the impact of Organizational Citizenship Behavior of Environment on Environment Performance?

RQ11: What is the impact of Employee Commitment on Environment Performance?

RQ12: What is mediating impact of PCBE, OCBE, POS, and EC between GT and Environment Performance?

## **1.6: Research Contribution**

Researchers have paid attention to the importance of GHRM practices, enlightening the critical ways to provoke employees' green attachment (Pham et al., 2019c) and green behavior (Pinzone et al., 2019; Chaudhary, 2019), and exalt organizations' environmental effectiveness (Zhang et al., 2019). Even though GHRM-linked publications have gained a noticeable increase, there is significant room available to explore the endeavors of GHRM in the hospitality industry. As for

now, if we talk about the GHRM-related studies which are interactive to the hospitality industry Pham et al. (2019b) articles dig into the bilateral impacts of employees' positive trend towards green behavior and GHRM practices. This article draws attention to the fact that green training plays a vital role in the synergy of such employee behavior. thus the ingenuity of the current research is based upon answering these identified limitations by (1) inquiring about the bilateral impact of GHRM practices (e.g., training,) on CEP, and (2)examining the intervening part of EEC and OCBE heading for such ties, which have not given due attention by the researchers, generally in management and particularly in the hospitality industry. Accordingly, in this research, we are looking forward to finding the adequate reasons for the above-identified research gaps.

This research adds to the body of knowledge by examining the hypothesized relationships in a developing country context (in this case, Pakistan), which has been overlooked in previous studies (e.g. Renwick et al., 2013; Ren et al., 2018). This study provides researchers with a chance to learn about the differences between developed and developing countries in terms of culture and economics (Hofstede, 2011).

### **1.7: Structure of Thesis**

This study is organized into five chapters. Chapter one provides a brief introduction that deals with the background of the study. It is further comprised of the problem statement, objective of the research, and the importance of the hotel industry in the context of developing countries like Pakistan. Chapter two includes a detailed literature review from prior researchers who have contributed to the context of this study. This chapter unveils the prior literature which provides the grounds for analyzing research gaps and problem areas to achieve the purpose of this research because it is necessary to understand why GT is important for the performance of

the environment and with this aim, the theoretical model for this study has been assembled. This chapter also links all the main elements derived from the literature review and develops the hypothesis for this study. In addition, provides a comprehensive theoretical framework that will be tested in later chapters.

Chapter three explain the methodology of research which involves a plan of research, data collections and its filtration, study sample size for the detailed analysis of research. In chapter four, this study discusses the analysis methods and techniques. This chapter provides the results of the measurement model and structural model and at the end discusses the model fitness. In addition, this chapter also presents the results of the mediating effects of PCB, POS, OCEB, EC between independent variables GT, and dependent variable EP.

Chapter five concludes this thesis, drawing together key empirical findings with the main research objective and related research questions. This chapter also highlights the distinctive contributions arising from this thesis for practice and research. At the end of chapter five study limitations and future directions are discussed.

## CHAPTER 2: LITERATURE REVIEW

### 2.1: Green Training (GT)

Green training which is an essential part of GHRM practices refers to “a system of learning practices related to environmental issues to improve employees’ awareness and skills for environmental management in the job” (Tang et al., 2018, p. 34). Green Training and development is defined as the process of equipping employees with working approaches that ensure adequate resource utilization, reduce waste, energy conservation, and environmental degradation cause reduction.

Green Training and development allude to classifying activities that propel workers to learn environmental safety skills and focus on ecological issues, which are key in achieving ecological goals (Jabbour, 2011). Training can enhance workers' awareness, information, and aptitudes in environmental dimensions (Sammalisto & Brorson, 2008)). Green training ought to be furnished alongside training projects to all individuals from the firm, not just those connected with ecological offices. Green training can upgrade workers' familiarity with Pro-environmental activities in the working environment. Green training projects can assist representatives in progressively comprehending the significance of ecological settings, which makes them increasingly touchy to ecological control and inhibition procedures, for example, gathering information on waste and recognizing contamination sources (Kjaerheim, 2005).

(Baumgartner & Winter, 2014) found that enacting corporate ecological practices, for example, training workers to deal with the natural environment, expanding natural consciousness, and permitting them to improve their capacities and self-efficacy to address ecological problems in a viable way, would assist workers with adopting dependable natural

conduct as pro-environmental practices. Green training likewise offers knowledge management that empowers workers to complete environmental tasks. Training, performance appraisal, and compensation and reward help representatives to take part in environmental practices as an outcome of more prominent ecological consciousness, self-governing inspiration, and solid intention to guard the environment (Dias-Sardinha & Reijnders, 2001). A report uncovered that ecological information and qualities in China are drivers of workers' ecological practices. Through green knowledge management, workers can get broad green training, upgrading their insight into and aptitudes in ecological protection and improving their capacities in managing complex environmental management issues (Sammalisto & Brorson, 2008). For instance, workers can pick up information on the most proficient method to gather information on waste and increment their ecological skills through training. Green training fabricates an atmosphere that urges all representatives to get associated with natural activities (Kjaerheim, 2005). Renwick, Redman, and Maguire (2013) proposed that coordinated training incorporates extensive projects as well as connects them to appraisals and performance of management systems, which is a technique for forming an environmental work climate.

## **2.2: Environmental Performance (EP)**

This means the measurable results of an organization's management of its environmental aspects.

Bansal (2005) indicated three important corporate environmental management practices that can be positively related to CEP. First, pollution control strategies, which refer to the actions through which a firm discards its waste in a responsible manner (Hart, 1995). These, however, require the cost of installing and operating expensive 'end of pipe' pollution control devices (Hart, 1995). In these cases a physical equipment is added to filter toxins or reduce waste removal services

(Russo & Fouts, 1997). Second, pollution prevention strategies, through which the firm minimizes emissions and effluents and diminishes or removes waste through innovative processes or technologies employed all along the production process (Klassen & Whybark, 1999). As such, pollution prevention encourages firms to augment resources and build capabilities more than pollution control processes do (Russo & Fouts, 1997). It helps realize substantial savings, causing a cost advantage relative to competitors (Hart & Ahuja, 1994). In addition, pollution prevention provides the possibility to cut emissions way below required levels, lowering compliance costs (Rooney, 1993). Lastly product stewardship strategies refer to the firm's product development and promote the use of fewer materials, toxic or not, easy recycling or reuse along the value chain (Hart, 1995). It implies the inclusion of external stakeholder perspective into product design and development processes (Fiksel, 1993). Hence, since every firm has an environmental impact, a corporate environmental strategy is the set of practices designed to reduce the extent of a firm's "ecological footprint" (Bansal, 2005).

### **2.3: Perceived Organizational Support (POS)**

Perceived organizational support is the degree to which employees believe that their organization values their contributions and cares about their well-being and fulfills socioemotional needs.

The concept of POS has been studied largely over last 30 years. This is dated back to 1960 but it has been extensively studied recently and thoroughly. It has been observed to have an impact on organizational commitment and employee's perception for readiness for change. The organizations are trying their best to show their support for the employees because of importance of POS as establishes a mutual relationship between employees and their organization (Mathieu & Zajac, 1990; Meyer & Allen, 1997; Mowday, Porter, & Steers, 1982; Rhoades & Eisenberger, 2002). Many researchers have pointed out the importance of POS as it enhances the commitment

and productive of an employee because they give value to the support they receive from their organization ((Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001; Meyer & Allen, 1997; Mowday et al., 1982). hence social support concept is vital for the organization as well as for the organization. The management must take care of employee needs as and support them as it greatly affects organization-employee relationship. According to (Kumar, 2008), the employees see the support from their managers as support from their organization. (Levinson, 2009) also explained that employees perceive the actions and decisions of the managers as the actions and decisions of their organization.

Following above discussion, POS can be defined as, the employees universal believes and perceptions about the extent of value that is provided by their organizations against their contributions for them (Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002). Organizations and employees benefit mutually form their positive attitudes for each other (Rhoades & Eisenberger, 2002) therefor, the organization-employee relationship is reciprocal in nature.

POS gets its roots mainly form two theories, first is social exchange theory and other is organization support theory. Both the theories have been widely used in the studies with the attempts to explain the relationship between organization and employee.

The social exchange theory has been put by (Blau, 1964), which explains the that how the organization-employee relationship is formed and derive their strength (Eisenberger, Cummings, Armeli, & Lynch, 1997). Social exchange theory is the concept of mutually beneficial relationship between two parties for the exchange of future benefits for each other, it advocated that this theory resides on reciprocity norms (Aselage & Eisenberger, 2003).

Organizations are the places that are well organized and are being operated efficiently for achieving the excellence. In OST, employee of the organization sees the management doing as the organization's doings (Eisenberger et al., 2002). OST is important part of POS literature as it provides rather clear picture about antecedents and outcomes of POS. in context of organizational change, it serves as an antecedent because if an employee see its organization supports him he will be willing to confront whatever the organization puts next to him, he will be more likely ready for the change (Ciliana & Mansoer, 2008) . (Nova & Hadiyan, 2017) , in their study have empirically examined the impact of POS and LMX on readiness for change. The results of his study showed that if an organization support their employees, they will likely to be ready for implementation of change. In their study POS and LMX were found to be positively associated with the employee's readiness for change but the effect of POS was a bit higher as compared to LMX hence the researcher stressed more on supporting the employees for their work and full fill their social needs. Arneguy at al. 2018, has extended the change literature by examining the predictor of readiness for change and has seen the relationship of overall justice with RFC. He also examined the role of POS and OID (Organizational identification) as a mediator. The results of his study showed that POS mediates the relationship between overall justice and RFC. Gigliotti at al. 2018, also studied the role of POS as a predictor of readiness for change along with the examination of its indirect effect through trust. His findings also supported previous literature by adding that there is a positive impact that POS exerts on employees by building up the trust which then strongly contributes towards RFC. (Ming-Chu & Meng-Hsiu, 2015), have examined the relationship between POS and resistance to change along with the mediating role of most important predictor of change resistance and that is readiness for change. The prime focus of this study was that, how the organizations enhance change readiness among



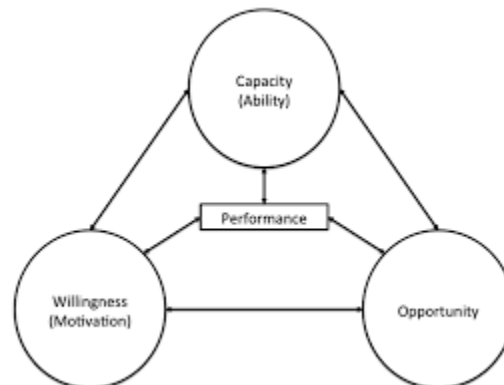
their employees has the findings of this study suggested that POS and supervisor support greatly help and hence, they indirectly effect resistance to change.

#### **2.4: Theory Related To Variables**

The theoretical contributions of this research are simple. AMO theory is the foundation of this approach, which emphasizes the function of employee attitude (such as EEC) and behavior (such as OCBE) in supporting the HRM-organizational performance relationship (Katou et al., 2014). To construct and test the conceptual framework, the authors, in particular, have integrated this theory with the green context. This investigation will supplement previous studies by improving our knowledge of these therapies, and it will undoubtedly add to the existing literature

#### **2.5: AMO Theory Definition**

The AMO theory suggests that three independent work system components shape employee characteristics and contribute to the success of the organization. According to the theory, organizational interests are best served by a system that attends to the employee's ability, motivation, and opportunity (AMO).



The AMO framework was developed by Appelbaum et al. (2000), based on a model previously proposed by Bailey (1993). The model aimed to examine the premise that HPWS can help the organization to improve plant performance.

### **2.5.1: Formula For AMO**

One seminar lecture became evident and apparent as it was about HRM and the Individual and came across this formula 'P=f (AMO) – Ability, Motivation, Opportunities'. I thought love that as I now realize why some individuals possess these attributes of Ability, Motivation, and Opportunities (AMO).

## **2.6: Hypotheses Development and Theoretical Development**

### **2.6.1: Green Training and Perceived Control Behaviour**

Adopting the TPB theory requires, first and foremost, identifying behaviors that strengthen a person's intent and make it possible for that person to act in accordance with that intent (Ajzen & Fishbein, 1980). Behavior is linked to intention in line with an individual's capacity to control his or her actions, according to the theory of planned behavior. The behavior is also determined by the intent of the person who exhibits it (Ru, Wang, & Yan, 2018). According to the TPB, behaviors are the outcome of past events. However, even without the weight of peer pressure, employees can be influenced by green training.

To categorize GHRM, researchers have divided it into three parts: green training; performance; and employee involvement in green initiatives (Masri & Jaaron, 2017; Pinzone, Lettieri, & Masella, 2015). PBC is impacted as a result of green training. The PBC refers to the feeling of erasing something or finding it difficult to carry out a task in a specific way (Ajzen,

1991). Individual performance in specific cases is captured by PBC as an additional construct to the theory of reasoned action (Ajzen and Fishbein, 1980). The TPB has something to do with the various ways in which resources are measured. Following green training, employees will feel more in control of their behaviors.

Perceived organizational support, as previously mentioned, can be inactive if actual organizational support is low. To support green training in realizing environmental performance and corporate citizenship behavior, employee PBC is required. Researchers have looked into the link between perceived organizational support (Aktar & Pangil, 2017) or work engagement (Hur et al., 2017; Shen et al., 2014) and organizational support as a moderating variable in HR practices. As a result, the current investigation hypothesized that green training has an impact on PBC, as follows:

***H1a: Green Training significantly influence the PCB***

### **2.6.2: Green Training and Perceived Organizational Support**

Case studies from Canadian smelting plants (oil and copper refineries) show that staff tacit knowledge is an important source for identifying pollution sources, dealing with emergencies, and developing pollution prevention solutions. This suggests that GHRM practices and POS-E improve individual performance. (Bourrial, 2002) People "possess knowledge and abilities that managers lack" when it comes to environmental performance at the NUMMI automotive industry in the United States (Rothenberg, 2003). Using problem-solving circles and a suggestion program, employees can bring in their contextual, procession, and inter-organizational knowledge as well as the external expertise of technical and management specialists to tackle environmental challenges. Green system performance such as reduced resource use (Florida and Davison, 2001), reduced waste output (May and Flannery, 1995), and reduced pollution at work

benefit from a company's commitment to environmental stewardship (Florida and Flannery, 1995). Kitazawa and Sarkis (Kitazawa and Sarkis, 2000). Environmental management was favorably connected with manager-rated environmental results in Spanish ISO 14001 registered firms, according to one study (Brio et al., 2007).

There hasn't been a lot of research on how GHRM practices affect individual environmental performance and how much of that is transmitted via POS-E. Individual performance, including prosaically and extra-role behaviors, is strongly influenced by POS, according to meta-analytic findings from the larger management literature (Kurtessis et al., 2017). (Riggle et al., 2009). According to a past study, HRM practices have an indirect impact on individual performance via POS. When businesses communicate to their employees that they are sincerely devoted to the environmental cause, POS-E consistently conveys the effect of green human resources practices on individual environmental performance.

***H1b:** Green Training significantly influence the POS*

### **2.6.3: Green Training and Organizational Citizenship Behaviour for Environment**

If we're being clear, green training refers to environmental policies that provide employees with the necessary information, skills, and attitudes to help the firm achieve its environmental goals (Daily & Huang, 2001). When employees receive environmental training, it empowers them to make environmentally conscious decisions by disseminating environmental principles throughout the organization (Boiral, 2009). Important to this plan is ensuring that staff are aware of environmental challenges and can deal with them. They should also be educated on environmental effect reduction methods (Vidal-Salazar, Cordon-Pozo, & Ferron-Vilchez, 2012). As a result, it motivates them to take part in green initiatives (Pless, Maak, & Stahl, 2012). These initiatives have the potential to make workers more environmentally aware and more likely to

take proactive attitudes and behaviors in the workplace (Daily & Huang, 2001). According to Pinzon et al. (2016)'s research findings, employees who use practices to acquire green competencies go above and above in environmental activities and participate in OCBE.

*H1c: Green Training significantly influence the OCBE*

#### **2.6.4: Green Training and EC**

Pérez-López, Moreno-Romero, and Barkemeyer (2015) found that an environmental management system affected employees' environmental views. As stated by Ren, Tang, and Jackson, environmental commitment can be a benefit of green training since it connects employees to the environment and boosts their behavioral responses towards corporate citizenship (2018). In the words of Katou (2015a) In the hospitality business, green training, sustainable practices, and an eco-friendly workplace are getting a lot of support. Greener accommodations are in high demand, and the hotel industry's pursuit of going greener is boosting its positive commitment to the environment. According to Luu (2018)'s research, internal motivation among employees increases environmental commitment. Green training has been shown to influence employee involvement, which in turn increases employee commitment, according to Pham et al. (2019). Govindarajulu and Daily (2004) found that green training aids employees in gaining environmental knowledge and skills as well as training that improves the environment's sustainability. Macduffie (1995) argued that a green reward policy that rewards employees for voluntary efforts like green practices strengthens their commitment to making the workplace better for everyone. Green training, according to the argument, has the potential to affect employee motivation, resulting in environmental commitment.

*H1d: Green Training significantly influence the employee commitment*

### **2.6.5: Green Training and Environment Performance**

An important priority for any organization, green training (GT) is described as being able to sustain the organization's advancement as a vital hypothesis (Amrutha & Geetha, 2020). Environmental management, as well as cleaner production, rely heavily on it as a necessary component. One piece of clear evidence suggests that any organization that uses GT improves its employees' skills, knowledge, and awareness of the materials and processes used in GT. As a result of these two factors working together, green training creates harmony and a peaceful work environment that supports sustainable performance. Green training helps find the best ways to use the available resources (Hussain, Kamarudin, Thaker & Salem, 2019). To cut costs, organizations are looking for ways and sources to expand their markets and increase production at the lowest possible cost. Introducing new and beneficial reforms, skills, and innovations has a significant impact on the organization'

*H1e: Green Training significantly influence the EP*

### **2.6.6: Perceived Control Behaviour and Organizational Citizenship Behaviour for Environment**

Studies have repeatedly linked the perception of behavior intending to behave in a certain way (Lizin, Van Dael, & Van Passel, 2017; Ru et al., 2018). The role of some uncontrollable external factors, such as time and cost, has been hypothesized by Ru et al. (2018). Researchers found that people who have a firm grasp on their intentions have a greater ability to shape others' behavior, according to Webb, Soutar, Mazzarol, and Saldaris (2013). According to numerous studies, OCBE is beneficial to both employers and employees (Clark, Zickar, & Jex, 2014; Lemoine, Parsons, & Kansara, 2015; Organ, 1997; Senior & Swailes, 2010). Organ (1997) first proposed the OCBE, which had five dimensions (altruism, courtesy, civic duty, sportsmanship, and

conscientiousness). An organization's need for OCB employees is high (Kazemipour, Mohammad Amin and Pourseidi 2012; O'Grady 2018); and an employee with OCB is often sought by organizations. The relationship between OCB and various variables, such as the outcome of the organization (Swaminathan & Jawahar, 2013), work overload, and the performance of the employees, has also called for additional research. Having employees who care about the environment builds environmentally friendly behaviors that can be used to implement a sustainable business model (Luu, 2018; Luu, 2019). (Tang, Chen, Jiang, Paille, & Jia, 2018. By participating in this area of the business, employees are encouraged to adopt a favorable attitude toward the environment and the firm's ideals. Employees' motivation to do good for the environment is influenced by their position in the organization, according to Raineri and Paillé (2016). It reveals that the impact of perceived behavior control on organizational citizenship behavior has an environmental impact since it measures employees' confidence in exerting control over both internal and external influences in the workplace and environment. The following are the hypotheses that have been proposed in this case:

*H2a: Perceived Control Behavior significantly influence the OCBE*

### **2.6.7: Perceived Control Behaviour and Employee Commitment**

A number of approaches have been used by environmental psychologists to better understand what influences people's pro-environmental behavior (Steg & Vlek, 2009; Yu, Lin, Kao, & Yu, 2019). Environmental commitment is one such factor. Having an environmental commitment means using environmentally friendly products and willingly adhering to government policies that pertain to the environment to reduce waste (Yu et al., 2019). Individual attitudes toward the environment are significantly improved by environmental commitment, which leads to greater

environmental friendliness (Ajzen, 2002). El-Kassar and Singh (2019), alternative approach to the topic was used to examine the role of managerial commitment and human resources practices among 215 employees in the Middle East, North Africa, and the Gulf Cooperation Countries. According to the study's findings, management and (green), HR practices both moderate green innovation and organizational performance. Researchers found that GHRM and transformational leadership are both important moderators of green innovation and environmental performance, according to Singh, Del Giudice, Chierici, and Graziano (2020). Using the resource-based view and dynamic capacities, Singh, Chen, Del Giudice, and El Kassar (2019) found a link between environmental ethics, environmental training, and competitive advantage. As a result, the hypothesis that PBC affects how employees treat the environment was as follows:

*H2b: Perceived Control Behavior significantly influence the EC*

### **2.6.8: Perceived organizational Support and Organizational Citizenship Behaviour for Environment**

An abundance of data suggests that POS is linked to business success. Following the SET framework, employees who feel supported are more likely to display workplace behaviors that are highly valued by their employers in return. Preliminary research shows that POS improves worker satisfaction and retention by reducing the desire to leave the company (Allen, Shore, and Griffith 2003), as well as reducing absence (Eisenberger et al. 1986). (Eder and Eisenberger 2008, study 2). It's been shown in previous research that POS and OCBs are linked (Kaufman, Stamper, and Tesluk 2001; Paille, Bourdeau, and Galois 2010), which means that employees are more likely (or willing) to put in extra effort to benefit their employers, coworkers, or supervisors in exchange for fair treatment. When an employee is willing to put forth the extra



effort, it can be seen as a form of repayment in accordance with the norm of reciprocity (Gouldner 1960). (Aselage and Eisenberger 2003). In an environmental context, a similar process is to be expected. If stakeholder pressure prompts the company to become environmentally conscious, the actions the company takes, as a result, may not be seen as a commitment to environmental protection by employees. Employers who believe in environmental protection and take appropriate measures to meet the needs of their employees who are concerned about the environment. Even though the connections between POS and OCBE have yet to be fully explored, Govindarajulu, and Daily (2004) identified four critical characteristics that they believe boost EC's environmental performance: managerial commitment, staff empowerment, rewards, and feedback. Studies cited by the authors show that organizations value and recognize the efforts of employees who adopt good environmental practices, both anecdotally and empirically. POS's core definition is supported by Govindarajulu and Daily's (2004) findings. Employee eco-initiatives are more likely to be valued if the employer sets an example by valuing them. As a result, OCBE can be viewed as a type of repayment for POS. Consequently, the following association is to be anticipated:

*H3a: Perceived Control Behavior significantly influence the OCBE*

### **2.6.9: Perceived organizational Support and Employee Commitment**

It was proposed by Mitchell (2005) that the relationship between support and commitment is analogous to that which occurs between an employer and employee in a social exchange context. Employees' commitment to POS shows how much their employers care about them, while employee commitment shows how much their employers care about them. Riggle, Edmondson, and Hensen (2009) found a strong correlation between POS and organizational commitment ( $k = 0.112$ ,  $N = 14,42874$ , corrected  $r = 0.71$ ) in their meta-analyses. Meyer and colleagues ( $k = 0.1418$

and k 18 N 14 7128) found an even stronger correlation between the two constructs. As a result, we can state the following:

*H3b: Perceived Control Behavior significantly influence the EC*

## **2.6.10: Organizational Citizenship Behaviour for Environment and Environment**

### **Performance**

Organizational performance can be improved by utilizing employees' OCBs, according to research done by Podsakoff and MacKenzie (1997). If a coworker is having a problem at work, they can lend a hand. Engaged employees who actively contribute to meetings help disseminate information within their organizations, and employees who learn new skills enhance their organization's ability to respond quickly to changes in their environment. Walz and Niehoff (2000) conducted empirical research into the link between restaurant employees' OCB and profitability. It was discovered that the OCB of employees has a significant impact on financial results, customer satisfaction, and restaurant quality. An analysis of data from time-series found that the OCB of restaurant employees had an impact on profits, according to Koys (2001). A review of over 35 studies examined the connection between operating costs and corporate performance by Nielsen et al (e.g., sales, profit margin, and customer satisfaction).

Researchers found a link between overall corporate profitability and return on invested capital (OCB). Except for the study by Paillé et al., few empirical studies have confirmed the link between employees' OCBE and environmental performance (2014). Employee OCBE has a direct impact on environmental performance, according to the researchers' findings. To achieve environmental goals and improve environmental performance, Daily et al. (2009) posited that environmental actions taken by employees like waste reduction would be beneficial. Similarly, Roy et al. (2013) argued that environmental performance can be improved by supplementing

environmental management systems with the spontaneity of eco-friendly behavior. As a result, the focus of this research is on the link between the eco-friendly behavior of hotel employees and the hotel's environmental performance.

*H4: OCBE significantly influence the EP*

### **2.6.11: Employee Commitment and Environment Performance**

Previous studies have discovered a strong link between corporate leadership commitment and better environmental performance (Perez et al., 2007; Spencer et al., 2013). Also in 2005, we found that an organization's dedication to the environment, as demonstrated by its senior management, was crucial in terms of evaluating and improving environmental management procedures (Chang and Deegan, 2010). Having an environmental committee in a business shows senior management's dedication to environmental issues, according to Dixon-Fowler et al. (2017), and as a result, the company's environmental management performance has improved. These hypotheses can be drawn from the debate just above:

*H5: EC significantly influence the EP*

### **2.7: Summary**

As a result of Blumberg and Pringle's (1982) and Bos-Nehles et al.'s (2013) arguments, we believe that practices that build both ability and opportunity have an impact on organizational citizenship behavior. There is also a growing body of research emphasizing the need of including opportunities in this model to help people execute their jobs more effectively. Blumberg and Pringle (1982) agree, arguing that the benefits received from employee competencies vary depending on the organization's methods, such as the supply of job opportunities for workers. The lack of opportunities to meet these demands (such as these put employees' potential in

jeopardy, negatively impact their performance, and decrease employees' motivation and discretionary efforts) reduces employees' motivation, even if employees are well-trained and knowledgeable enough to carry out the tasks their employers expect of them (such as empowerment, employee involvement, top management support, resources, and technology) (Lepak et al., 2006).

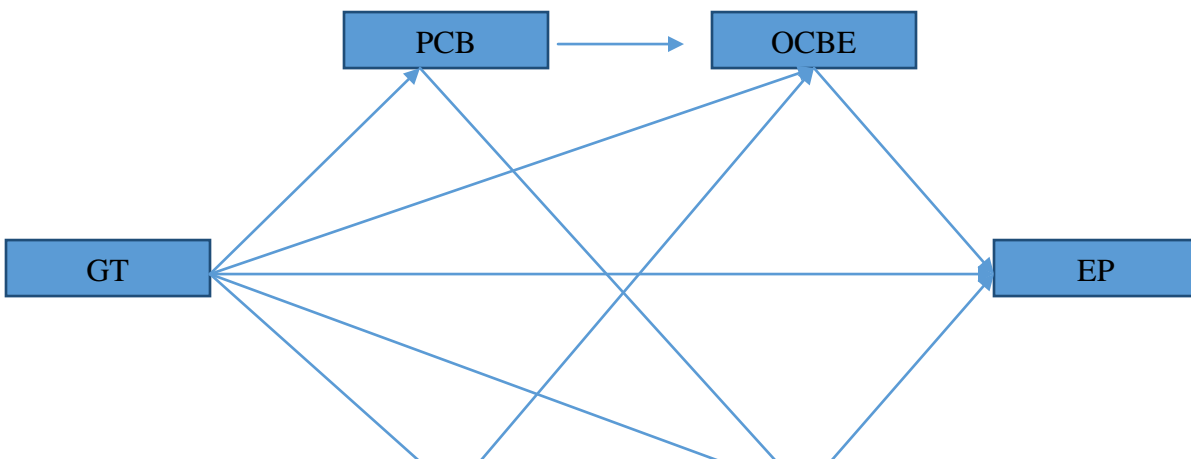
This study takes these reasons and applies them from the standpoint of the environment, i.e. providing employees with green career options. When green employees are involved in both HR and environmental management, it becomes a significant element. Green engagement promotes employees to join and create new ecological practices and to acquire green knowledge, skills, abilities, and behavior (Daily et al., 2012; Masri & Jaaron, 2017). (Paille, Boiral, & Chen, 2013). There is a possibility that this will moderate the link between green training and the incidence of OCBE in the future (Ren et al., 2017). It has been shown that people's involvement in environmental projects can increase their tacit environmental knowledge, making it easier for them to identify hazardous waste and pollution as well as manage their energy consumption. This increased understanding encourages employees to adopt more environmentally friendly behaviors voluntarily (Chan et al., 2014). More possibilities for employees to participate in and be taught environmental skills and activities are created by organizations that focus on building a green working environment. As a result, people with higher personal environmental standards are more likely to engage in green actions of their own volition (Chou, 2014). Dumont, Shen, and Deng (2017) claim that organizations that focus more on creating a "green climate" in the workplace have a greater impact on employee voluntary green behavior. As a result, we expect hotels that focus on increasing green employee involvement to experience a favorable impact on

the impact of green training on OCBE, whereas hotels that ignore increasing green staff involvement would see a negative impact.

### 2.1: LIST OF HYPOTHESES

H1a	GT is significantly related to PCB
H1b	GT is significantly related to POS
H1c	GT is significantly related to OCBE
H1d	GT is significantly related to EC
H1e	GT is significantly related to EP
H2a	PCB is significantly related to OCBE
H2b	PCB is significantly related to EC
H3a	POS is significantly related to OCBE
H3b	POS is significantly related to EC
H4	OCBE is significantly related to EP
H5	EC is significantly related to EP

**Figure 2.1: Conceptual Model**



## CHAPTER 3: RESEARCH METHODOLOGY

### 3.1: Introduction

This chapter discusses the research methodology as it is an essential part of the study. This chapter has been divided into nine sub-parts. Following the first part, the second section of chapter three discusses the research paradigms in-depth. The next third section briefs us regarding the design of the research. Next, the fourth part is related to the development of the questionnaires and data collection. Measurements of variables have been discussed in the fifth part of this section. Part six is about the sampling design, total study sample size, and justification about the sample selected for this study. The data analysis technique has been discussed in part seven. Part eight describes the measurement (outer-model) and structural model (inner-model) of the study. In the final section, the mediation process has been explained.

### 3.2: Research Paradigms

Mr. Thomas Kuhn gave the concept of paradigm in the early 1960s. The philosophy explains the thinking behaviors and actions that represent particular standards, norms, judgments, myths, and theories (Gummesson, 2000). To conduct research in social sciences, research design selection is mostly dependent on topic and research paradigm selection (Creswell, Plano Clark, Gutmann, & Hanson, 2003). The research paradigm is based on different beliefs that help in laying out a roadmap for your research (Kaushik & Walsh, 2019).

Kaushik and Walsh (2019) have worked on the effectiveness of the above-mentioned approach and put forward a note-worthy aspect of this approach in terms of objects, realities, and other related entities which are measurable. The studies about these aspects have highlighted the

nature of social sciences. The thinking, actions, and behaviors of the humans which are to be measured and explored, have been emphasized. Reliability and validity are the concepts that have been supported by the objectivity of the positivist research approach as it is associated with the quantitative research methods and on contrary, these concepts cannot be found in interpretive research (Tashakkori & Creswell, 2007). The positivist approach gives us experimental and quantitative research methods by studying and testing the deductive generalizations (Panhwar, Ansari, & Shah, 2017), and this is the most prevailing approach of methodology in literature (Foddy & Foddy, 1994).

### **3.3: Approaches of Research (Quantitative Methods vs. Qualitative Methods)**

Two main approaches are most commonly used that show different data-collecting and data analysis techniques namely quantitative and qualitative (M. L. Saunders & Lewis, 2009). In the quantitative method, a questionnaire or statistics are used for data collection purposes. On the other hand, in qualitative research, interviews and non-statistical tools are used.

In this study, a quantitative approach has been employed and the data has been collected in the form of a questionnaire to study the hypotheses. Van Teijlingen and Hundley (2001) explain that a quantitative approach is used to ascertain the deductive reasoning which is based on systematic observations of the persons to identify the human factors and generalize them to a large scale.

Hair Jr, Hult, Ringle, and Sarstedt (2016), explains that the quantitative method allows the researchers to study the internal and external relationship of constructs statistically. In this study, the variables have been computed on a theoretical framework that is an integral part of a study with the quantitative method approach (Westphal & Fredrickson, 2001). According to Hair Jr et al. (2016), this approach helps to test the hypotheses with high reliability. Particularly, in the

field of strategic management studies, this approach has also been proven successfully. Therefore, in this research, the relationships between constructs have been examined based on empirical evidence.

### **3.4: Research Paradigm Choice Justification**

For this study, the framework selected is based on an empirical epistemology, positivist approach, and quantitative methodology. The justifications that why these approaches have been selected are discussed hereunder.

Firstly, most of the well-known scholars have adopted this approach in similar nature of research work. According to Liu, Wei, Ke, Wei, and Hua (2016), the literature stressed that it is essential to formulate a research framework, model, or research paradigm for a quantitative study. Hence, this study also depends on the quantitative approach because the literature proves huge evidence in favor of using already identified variables and theories that support this research work. This study has been conducted to elaborate on the critical points (If the results support the previous ones or contradict them). There are also several advantages of the quantitative method that are purely associated with the positivist research approach; hence it provides the solid reason to test the hypotheses and subsequently uses the data for further interpretation in support of previous studies (Wicks & Freeman, 1998).

Some of the researchers like Hair Jr et al. (2016) have discussed the quantitative approach benefits in terms of reliability and validity after testing the hypotheses. Furthermore, it is possible to replicate data in the future when a scientific method is employed because it supports the replication of results that is necessary to test a theory (Flew, 1979). In the case of Pakistan, the positivist approach provides us with many ways to ascertain the relationships between an organization, its management, and its workers. Finally, the workplace is a topic that has been explored using the quantitative approach. Here, it can be concluded that the earlier



studies have supported the intensity and feasibility of using a quantitative approach to study such a topic. Therefore, this particular approach can be used for such kind of study in the hoteling sector of Pakistan.

### **3.5: Research Design**

According to R. Kline (2005), a comprehensive plan that encompasses the data collection source, limitations of the study, reasons for selection of field for the study as well as rationalization of it, and answering the research questions, is termed as the design of the study. Generally, making of design of the research is depending on the purpose of the study, the objective behind the study, the research area, the capacity of the researcher and his efforts in the research, and the analysis. A survey-based method is used in this study. The design of the research is presented in the next section.

#### **3.5.1: Research Methodology Objectives**

Some of the most frequently used methodology objectives in the literature are descriptive, investigative, or illustrative (M. L. Saunders & Lewis, 2009). Exploratory is the research type that gives users deep insights into research problems and different parameters and perspectives of analyses. R. Kline (2005) elaborates that exploratory research is very useful for realizing the different events, harnessing different perspectives, and analyzing the experiences.

In descriptive research, already established theories are verified and analyzed through testing various hypotheses. The descriptive research design facilitates the researchers to determine different behaviors and patterns of managers and business owners. This study has the main objective to explore and analyze the impact of green training on environment

performance through the sequential mediation impact of PCB, POS, OCBE, and EC. Therefore, a descriptive approach is considered in this study.

### **3.6: Data Collection Technique**

This part of the chapter describes the survey method and addresses the issues thereof, sampling technique used, and demographics of the participants in the context of this study.

### **3.7: The Survey Method**

This study applies the theoretical model to the sample from the hotel industry of Pakistan. In this connection, the survey method, particularly the primary data collection technique is the most appropriate tool due to the reasons discussed next. Firstly, for this study, it was necessary to ascertain the orientations and dispositions of respondents' thoughts and to collect their responses and beliefs (Drost, 2011). Second, it is rather easy and suitable to evaluate the data precisely and establish the deductive reasoning for the generalization of the results to the whole population (Cohen, West, & Aiken, 2014). Third, the most suitable method for casual research is the survey method (E. C. Hair et al., 2003). Another benefit of using the survey method is it is fast, effective, inexpensive, and relatively suitable for large samples (Karahanna, Straub, & Chervany, 1999). According to Luftman and Brier (1999), where there is a sample size of more than 200, survey methodology is the most suitable one.

On other hand, self-reported data is the most common criticism that is faced by the survey method but there are positive aspects of it (Spector, 1992). The problems are faced only when the same measurement tool is used for independent and dependent variables. This creates doubts about misrepresentations of inferences yielded from systematic responses. It also concerns the validity and reliability of the measurement instruments. Some other difficulties that

are related to the survey method are weak control on regularity, difficulty in ensuring the truthfulness of data obtained, and missing detail and depth in collected data (Fai Pun & Bhairo-Beekhoo, 2008). Therefore, the guidelines introduced by Fai Pun and Bhairo-Beekhoo (2008) have been followed for the study to enhance the accuracy and minimize other problems. Following are some measures that have been taken to address such issues. 1) To measure the underlying constructs, reliable and valid measurement scales have been adapted from high-rank journals. The questionnaire has been designed in a way that is easy, comprehensive, and unbiased. These measures minimize misrepresentation.

### **3.8: Survey Questionnaire Development**

To collect primary data, a questionnaire is mostly used (Ricci et al., 2019), which is generally a set of pre-designed questions for a certain topic (Karahanna et al., 1999). The questionnaire delivered to the respondents serves to obtain their responses in written or verbal form (McClelland, 1994).

One major difficulty faced by the scholars is the length of the instrument. It must not be too long as it may lead to the inefficiency of data collection. There are different points of view in this context. Lorelle Frazer and Lawley (2000) suggest that a 12-page long questionnaire is adequate, whilst William (2003) believes that it must not have more than 6 pages. The questionnaire for this study follows the standards and contains less than 6 pages. The questions are clear, well-spaced, well numbered, and properly sequenced. The topic flow has also been taken care of that moves swiftly towards the objective of the study.

The language of the questions is easy, well communicated, and is understandable to the persons with nominal education. The questions are easy, unbiased, relatable, and appropriate to the hotel's employees that are the main respondents. According to Lorelle Frazer and Lawley

(2000), if the respondents can easily read and comprehend the questions, they feel motivated to answer the questions in full.

The questionnaire was supported with the covering letter that acts as an invitation to contribute to the survey. The respondents have also been assured of privacy and confidentiality of their information through this cover letter. The questionnaire consists of seven sections where the first section is related to the demographics and the other six sections contain construct-related questions. These sections are placed in the sequence given below.

**Section A:** In this first section, questions were asked about each respondent's profile, including gender, education, age, experience, position in the organization.

**Section B:** In this section, Green training was assessed through adopting the six items to measure the GT from Daily et al. (2012) and Jabbour (2015).

**Section C:** Three items were used to measure PCB Cordano and Frieze (2000).

**Section D:** POS was measured with an eight-item scale developed by (Brough et al., 2014; Greenhaus, Ziegert, & Allen, 2012).

**Section E:** Whereas OCBE was evaluated by utilizing the questionnaire with eight-item adopted by Pham et al. (2019)

**Section F:** EC was ascertained with the help of an EC questionnaire with four items relative to (Mowday, Steers, & Porter, 1979).

**Section G:** Environment performance (EP) was measured with five items that were modified from the scale developed by (C.-H. Wang, 2019); (Ramanathan, 2018).

To measure all of the constructs of this study, a 45-item scale has been used. The selection criteria of items are as follows. Items that were meeting the minimum requirement of

reliability value (Alpha 0.70 or above) have been used. Whether the items fall into the domain of the study or not, this factor has been dealt with theoretical judgment.

### 3.9: Operationalization of Constructs

For operationalization purposes, the Likert scale has been utilized. According to Kent (2001), it is the most commonly used scale by researchers. Here, this research has applied a seven-point scale ranging from 1 = strongly disagree to 7 = strongly agree. For instance, distributive justice was assessed by using the scales, where “1” presents the strongly disagree and “7” presents strongly agree. In contrast to lower scales, a 7-point Likert scale optimizes the reliability and results in a strong correlation.

**Table 3.1: Items of Green Training**

1= Strongly Disagree, 2= Disagree, 3= Slightly Disagree, 4= Neutral, 5= Slightly Agree, 6= Agree, 7= Strongly Agree

An adequate amount of training in environmental issues is provided for employees	1	2	3	4	5	6	7
Employees can have the chance to be trained on environmental issues	1	2	3	4	5	6	7
Employees receive environmental training frequently	1	2	3	4	5	6	7
Employees use environmental training effectively	1	2	3	4	5	6	7
Employees have many opportunities to use environmental training	1	2	3	4	5	6	7
There is adequate evaluation of employees' performance after environmental training	1	2	3	4	5	6	7

Daily et al. (2012) and Jabbour (2015)

**Table 3.2: Items of Perceived Control Behaviour**

It is within my control whether or not I implement	1	2	3	4	5	6	7
I can obtain the resources needed to increase the number	1	2	3	4	5	6	7
Facility management supports my efforts to implement	1	2	3	4	5	6	7

Cordano and Frieze (2000)

**Table 3.3: Items of Organizational Citizenship Behavior for Environment**

1 “Strongly disagree”, 7 “Strongly agree”.

I suggest new practices that could improve the hotel	1	2	3	4	5	6	7
I encourage my colleagues to adopt more environmentally	1	2	3	4	5	6	7
I stay informed of the hotel's environmental efforts	1	2	3	4	5	6	7
I make suggestions about ways to protect the environment	1	2	3	4	5	6	7
I volunteer for projects or activities that address the hotel	1	2	3	4	5	6	7
I spontaneously give my time to help my colleagues	1	2	3	4	5	6	7
I undertake environmental actions that contribute positively	1	2	3	4	5	6	7

Pham et al. (2019)

**Table 3.4: Items of Environment Performance**

The company has achieved important environment-related certifications.	1	2	3	4	5	6	7
On average, the overall environmental performance of our company has improved over the past five years.	1	2	3	4	5	6	7
The resource consumption e.g. water, electricity, and gas has decreased during the last 3 years.	1	2	3	4	5	6	7
Improvement of environmental compliance.	1	2	3	4	5	6	7
Complying with environmental regulations (i.e., emissions, waste disposal)	1	2	3	4	5	6	7

(C.-H. Wang, 2019); (Ramanathan, 2018); (Chiou et al., 2011); (Vachon and Mao, 2008)

**Table 3.5: Items of Perceived Organizational Support**

My employer values my contributions	1	2	3	4	5	6	7
My employer strongly considers my opinions	1	2	3	4	5	6	7
Values help is available from my employer when I have a problem	1	2	3	4	5	6	7
My employer cares about my well-being	1	2	3	4	5	6	7

**Table 3.1: Items of Employee Commitment**

I am committed to always implementing green behaviors at work	1	2	3	4	5	6	7
If I don't implement green behaviors at work, I will feel regret	1	2	3	4	5	6	7
If I don't implement green behaviors at work, I will feel guilty	1	2	3	4	5	6	7
Spending time implementing green behaviors at work makes me very happy	1	2	3	4	5	6	7

(Wang, 2016)

### **3.10: Sampling Design**

The determination of target population, sampling frame, and sample size are named as the sample design of the research (Cooper & Schindler, 2000). These concepts are explained as follows.

#### ***3.10.1: Population and Sample Size***

Our Research is directed to examine the connection among the entities that can take dissimilar values. Hence a quantitative perspective to collect data from different individuals and designing a questionnaire for this research is a relevant idea (M. Saunders, Lewis, & Thornhill, 2009).

The data is collected from the respondents employed in 3 to 5-star hotels in Pakistan employees were selected who are more linked in environmental practices. The environmental issues have been captivated by numerous hotels as they affect a negative impression on the environment (Molina-Azorín, Tarí, Pereira-Moliner, Lopez-Gamero, & Pertusa-Ortega, 2015).



Tourist prefers living in hotels that have likely greener and natural sceneries (Robinot & Giannelloni, 2010). This has simulated hotels to adopt a strategy for the protection of greenery and natural sceneries. The green strategy has given favorable and had granted a superior position and accommodating weightage to 3 to 5-star hotels. Numerous such hotels were suitable for environmental studies (Molina-Azorín et al., 2015).

Respondents selected for the studies should be experienced in hotels and have been engaged in environment-related activities e.g., looking for indoor plants, gardening, recycling waste, etc., in this way only they can realize how important the environmental factor is and will answer the questionnaire well. Thus, the controlling employees such as immediate supervisors, or responsible working at different departments and administration (or Human Resource) considered for gathering data.

There were many reasons for selecting managerial employees for research. Firstly, they show excessive cooperation in collecting data as their knowledge and experience are wider in environmental information. Their connection to management operation is linked directly thus they gain numerous information from its surrounding as well as organization (hotel) helping an accurate data collection (Chen & Tung, 2014). Also, the previous research based on the hotel industry has been conducted by managerial employees, therefore continuity leads to better results (Longoni, Luzzini, & Guerci, 2018; Masri & Jaaron, 2017). Thirdly, the hotels need to present an ambiance, comfort, and well behavior towards their guests. The hotel management employees are trained well to be courteous and welcoming; these employees can lead to derive an accurate data collection (Lee, Yusoff, Zainol, & Pillai, 2018; Molina-Azorín et al., 2015).

### **3.11: Pilot Study**

To affirm the uniformity of the questionnaire items a pilot study was performed. The technique used in this pilot study was simple random sampling. By taking the kind suggestions of Luckas, Hair, & Ortinau (2004), for suitable statistically testing procedures, in the test study a total of 83 respondents was engaged, where they were all familiar with the research objectives as well as the hospitality industry of Pakistan.

#### **3.11.1: Participants**

The overall response rate from the industry was 39%. To have higher generalized and stabilized results collecting the samples from a broad spectrum of industries would be more helpful rather than collecting from a single entity stated Dess, Ireland, and Hitt (1990).

#### **3.11.2 Results Discussion of Pilot Study**

Many flaws in the questionnaire were pointed out by the respondents in the pilot study. Thus those amendments were made sure before the final run of the questionnaire. To access the construct's reliability Cronbach alpha was used (Churchill, 1979). The validity assessment was conducted after the final collection of data.

#### ***3.11.2 Sampling Method***

According to Bordens and Abbott (2002), it is difficult to obtain data from the whole population, that is normally collected from a sample for a study. According to their study, a sample is a sub-part of the whole population. Based on previous studies conducted by Bordens and Abbott (2002); Uma and Roger (2003); and M. L. Saunders and Lewis (2009), there are two different sampling technique approaches. 1) Probability sampling and 2) non-probability sampling.

According to M. L. Saunders and Lewis (2009), with the probability sampling method, it is possible to generalize the findings of a study to the whole population. Here, for generalizability, probability sampling has been adopted.

**Table 3.2: Minimum Sample Size Required**

<b>Population</b>	<b>Margin of Error</b>			
	<b>5%</b>	<b>3%</b>	<b>2%</b>	<b>1%</b>
50	44	48	49	50
100	79	91	96	99
150	108	132	141	148
200	132	168	185	196
250	151	203	226	244
300	168	234	267	291
400	196	291	343	384
500	217	340	414	475
<b><u>750</u></b>	<b><u>254</u></b>	<b><u>440</u></b>	<b><u>571</u></b>	<b><u>696</u></b>
1,000	278	516	706	906
2,000	322	696	1091	1655
5,000	357	879	1622	3288
10,000	370	964	1936	4899
100,000	383	1056	2345	8762
1,000,000	384	1066	2395	9513
10,000,000	384	1067	2400	9595

By observing the guidelines from Lindner, Murphy, and Briers (2001), the sample size selected for this study is 372 from the hotel sector of Pakistan.

### ***3.10.3 Summary of Data Collection***

The summary of the methodology is represented in the table. 3.8 is given below. The unit of sampling of this study is employees of the hotel industry of Pakistan. The final sample of 360 was collected by distributing 1200 research questionnaires. Normally, the common rate of response from social sciences is about 35% (Baruch & Holtom, 2008). Keeping given such a rate a total of 1200 questionnaires have been distributed among employees of different hotels and their branches.

**Table 3.3: Summary of Data Collection**

<b>Unit of Analysis</b>	<b>Hotel Industry</b>
<b>Unit of Sampling</b>	3 Star to 5-Star hotels
<b>Respondents</b>	Employees of Hotels (Pakistan)
<b>Population</b>	6830
<b>Sample Size</b>	372 respondents
<b>Extent</b>	Hotel Industry

### **3.12: Assessment of Common Method Bias**

Before hypothesis examination put in Harmans's one-element examination (Podsakoff et al., 2003) permitted test of an inside logic concern of mono method unfairness. This was suitable following the work gathered the reaction of dependent and independent variables applying

oneself reporting questionnaire (Shadish et al., 2002). An examination of the component with varimax rotation was done in which all computation items were checked and finalized 6 variants (initial eigenvalue W1, rather than a single factor) from all observed items. All elements are collectively considered for 65% of the difference. The difference in inflation compared outcomes below 3, and toleration census was higher than 0.3, specifying that multicollinearity was not an issue (Hair et al., 2010).

### **3.13: Structural Equation Modelling (SEM)**

For this study, the Structural equation modeling (SEM) technique has been used for testing the hypotheses. SEM has been observed as a very useful technique in social sciences (Sharma, 1996). Thus, SEM is of valuable use for ascertaining the reliability and validity of the constructs. In addition to that, the researchers can assess individual parameters and the goodness of the model (J. F. Hair, Anderson, Tatham, & William, 1998; R. Kline, 2005). SEM is commonly used in academic research in social sciences (Barjis, Gupta, & Sharda, 2011; R. Kline, 2005) and this is also considered an extremely good method for multivariate analysis. In addition to that, the scholars can test all of the relationships between variables present in the framework simultaneously (Byrne, 2001). Researchers have suggested Smart PLS and PLS Graph software for variance-based techniques (Chin & Newsted, 1999).

#### **3.13.1: SEM Assumptions**

One has to follow some assumptions that are required to apply SEM, for example, normally distributed data and decent sample size. It's important to consider the normality of data because otherwise, it affects the other assumptions (Sharma, 1996). Similarly, decent sample size is needed because otherwise, in very small sample sizes, covariance and correlations are rather less stable (R. Kline, 2005; Tabachnick & Fidell, 2001). Furthermore, it is difficult to identify

significant path coefficients, and also, covariance matrix instability may arise (a sample error). This results in unacceptable solutions and it also reduces the quality of goodness of fit indicators (Quintana & Maxwell, 1999).

Hence, as discussed earlier, to analyze the theoretical model, PLS-SEM is used. The reasons for using these techniques are hereunder. As the intention of this study is continuous knowledge sharing, the latent variable scores are required to assess the connections underlying between latent variables. The modeling of this study is complex and a large number of variables are being analyzed. Henseler, Ringle, and Sinkovics (2009b) have also nominated the PLS as the most appropriate software that deals with complex models. This study is an effort of examination of knowledge available in the literature. PLS-SEM estimates the correlation between residual values of variables and what impact does it make is then assessed, theoretical model.

**Table 3.4: Rules of Thumb in Selecting between CB-SEM and PLS-SEM**

<b>Criteria to Evaluate</b>		<b>CB-SEM</b>	<b>PLS-SEM</b>
<b>Research goal</b>			
1	i. Predicting key target constructs		✓
	ii. Theory testing, theory confirmation, or comparison of alternative theories	✓	
	iii. Exploratory of an extension of an existing structural theory		✓
<b>Measurement model specification</b>			
2	i. If formative constructs are part of the structural model	✓	✓
	ii. If error terms require additional specifications		

---

such as co-variation

**The structural model**

- |   |  |   |   |
|---|--|---|---|
| 3 | i. If a structural model is complex        |   | ✓ |
|   | ii. If a structural model is non-recursive | ✓ |   |

**Data characteristics and algorithm**

- |   |  |   |   |
|---|--|---|---|
|   | i. Data meet distributional assumptions          | ✓ |   |
|   | ii. Data did not meet distributional assumptions |   | ✓ |
| 4 | iii. Small sample size consideration             |   | ✓ |
|   | iv. Large sample size consideration              | ✓ | ✓ |
|   | v. Non-normal distribution                       |   | ✓ |
|   | vi. Normal distribution                          | ✓ | ✓ |

**Model evaluation**

- |   |  |   |   |
|---|--|---|---|
| 5 | i. Use latent variable scores in subsequent analyses |   |   |
|   | ii. Requires global goodness of fit criterion        | ✓ | ✓ |
|   | iii. Need to test for measurement model invariance   | ✓ |   |

---

Adapted from: (Hair Jr, Hult, Ringle, & Sarstedt, 2021; Henseler, Ringle, & Sinkovics, 2009a)

Table 3.9 displays the role of thumb that is used for making a selection between PLS-SEM and CB-SEM. Mr. Herman Wold developed PLS and it has its roots in alternate least square algorithms and extension of principle components and doing canonical analysis on basis of correlation is also one of the software's abilities (Henseler et al., 2009b). According to Henseler et al. (2009b), two types of models are needed to be analyzed when it comes to a path study: namely measurement and structural model. The measurement model explains the unobserved variables while on the other hand, the structural model elaborates the latent variable and observed variables relationships.

### **3.14: Evaluating Measurement Model Using Partial Least Square**

Complete assessment of a theoretical model consists of two steps, 1) Assessment of measurement model and, 2) Assessment of structural model. The following parts of the study will elaborate on the guidelines employed in the model assessment process.

#### **3.14.1: Measurement Model**

At first, the validation of the measurement model primarily starts with the testing of validity and reliability (Lewis, Templeton, & Byrd, 2005; Straub, Boudreau, & Gefen, 2004).

#### **3.14.2: Internal Consistency**

Reliability represents the fact that how effective are the data collection and evaluation techniques and will become out with similar results when applied again in a similar setting (M. L. Saunders & Lewis, 2009). There are two commonly used approaches for the assessment of reliability and internal consistency is needed for both approaches. The first is the evaluation of Cronbach's Alpha and it represents how consistent and positively related are the items of an instrument (Uma & Roger, 2003). A value that is below 0.6 is treated as poor and the range of 0.7 to 0.8 is normally acceptable and ones with a value of above 0.8 are very good (Sekaran & Bougie, 2016).

The second method is derived from SEM analysis. This method ascertains the internal consistency and it is treated as parallel to Cronbach's coefficient alpha. But according to a researcher namely Shook, Ketchen Jr, Hult, and Kacmar (2004), assessing composite reliability is a better choice. This specifically takes into count the standardized loadings for individual items. On the other hand, there is a limitation to coefficient alpha that it treats all the items equally when calculating distribution to reliability. But in this study, both criteria are used for the determination of reliability.



### **3.14.3: Indicator Reliability**

To assess the reliability of the indicators, constructs are evaluated as if they are consistent with what they measure (Urbach & Ahlemann, 2010). According to Chin (1998), loading should be greater than 0.7 and its significance level must be up to 0.05.

### **3.14.4: Validity**

Data validity is also one of the important concerns of the researchers. Measurement techniques are used to calculate the selected items to determine the validity of the questionnaire (Sekaran & Bougie, 2016). Mostly two types of measures can be used to assess the validity namely 1) content or face validity 2) construct validity.

### **3.14.5: Face or Content Validity**

Content validity ensures that during the initial stage of phase development, the units sets must be re-elected main hypothesis. For this study, deep scanning of literature has been conducted, and alongside that, the experts in the field have also been shown the adopted instrument. Expert opinion has been obtained to make sure that the questionnaire is user-friendly, lucid, easy to read, and suitable for the respondents.

### **3.14.6: Construct Validity**

Construct validity deals with the relevance of the particular instrument with the other instruments that measure similar constructs based on theoretical hypotheses that are to be tested in the study (Carmines & Zeller, 1979). To determine the construct validity, usually, three tests are performed namely: discriminant validity, convergent validity, nomological validity.

Either the instrument has the desired convergent validity, is assessed by the level of inter-reliability of the construct's measurement items (Kane, 2010), and this can be determined by evaluating the strength of correlations between the items (Netemeyer, Bearden, & Sharma, 2003). Confirmatory factor analysis can also be used to assess construct validity. According to

(Tiliopoulos, Francis, & Jiang, 2013), it examines the factor loading and AVE (average variance extracted). In the beginning, 0.35-factor loading is acceptable. Then, AVE is determined. It calculates the overall intensity of variance accounted by the latent variable. 50% benchmark value of normality shows that the AVE is acceptable (Bagozzi & Yi, 1988). These criteria are generally acceptable for demining convergent validity. There is another requirement for the discriminant validity that a variable that needs to be different from another variable must not be similar to those variables (Netemeyer et al., 2003). Normally, discriminant validity is calculated using a test proposed by Bagozzi and Yi (1988). They have recommended that the AVE of an individual construct must be more than a squared correlation of that particular construct with others (J. F. Hair, Ringle, & Sarstedt, 2013). The guidelines of validity are given in Table 3.10.

**Table 3.5: Validity Guidelines for Assessing Reflective Measurement Model**

	<b>Validity Type</b>	<b>Criterion</b>	<b>Guidelines</b>
1	Internal consistency	CR	CR > 0.7 (for exploratory study) CR > 0.8 (advance research) CR < 0.6—lack of reliability
2	Indicator reliability	Indicator loadings	Item's loading > 0.7 and significant at least at the 0.05 level
3	Convergent validity	AVE	AVE > 0.50
4	Discriminant validity	Cross loading Fornell and Larcker	Item's loading of each indicator is highest for its designated construct. The square root of the AVE of a construct should be greater than the correlations between the construct and other constructs in the mode

The validity of a model is considered acceptable when it fulfills the following conditions

CR value is higher than 0.8

- Loading is higher than 0.7 whereas the p-value should be lower than 0.05.
- Average variance extraction is higher than 0.5
- The individual loading values of items must be higher than their construct.
- The square root of a construct must be higher than between constructs.

### **3.15: Evaluating Structural Models using Partial Least Square**

The measurement of the structural model (SM) further assists in testing whether the hypotheses in the model are supported by the collected data (Urbach & Ahlemann, 2010). In PLS, SM is calculated using R<sup>2</sup> (coefficient of determination) and path coefficient. For PLS-SEM, R<sup>2</sup> is measured for every DV in the study that explains the LV (latent variable) variance to the total variance. The high variance value for R<sup>2</sup> is 0.67, while 0.33 represents average variance and 0.19 represents the weak relationship (Chin, 1998). The strength of the two-variable relationships is represented through path coefficient (B) along with the algebraic sign, magnitude, and level of significance. Arceneaux and Huber (2007) describe that the path coefficient value must be higher than 0.100 then a significant impact will be accounted for. Table 3.11 represents the guidelines used to check the validity of a structural model.

**Table 3.6: Summarizes to Validate the Structural Model**

<b>Validity Type</b>	<b>Criterion</b>	<b>Guideline</b>
<b>1</b>	The coefficient of determination ( $R^2$ )	0.67—substantial 0.333—moderate 0.190—weak
<b>2</b>	Path coefficients	Path coefficient must be at least 0.100 and at significance (at least 0.05)

## CHAPTER 4: DATA ANALYSIS AND RESULTS

### 4.1: Introduction

The empirical findings of the study are covered in this chapter. As discussed in chapter four, analyses have been conducted by using the survey method approach. And a questionnaire is used for data collection. This chapter is explained in the following different sections. Following the introduction, data preparation is discussed in chapter two includes coding, editing, handling of missing data, analysis of demographics, non-response bias, and study of outliers. Section three is about the multivariate assumption. Section four is about descriptive statistics of the study. In the next fifth section, SEM is discussed in detail. This section also presents the measurement model. The analysis of the structural model is presented in section six. Since this study is analyzing the intervening role of PCB, POS, OCBE, and EC, therefore results of the intervening mechanism are discussed in section seven.

### 4.2: Data Preparation

The detailed discussion is presented in the following sub-sections

#### 4.2.1: Data Editing, Coding, and Screening

After collecting the data, the editing of that data has been conducted. In process of data, editing involves the assurance that there should be no omissions and should be consistent (Zikmund, 1994). Only those questionnaires must be considered where there is 75% of questions have been filled (Sekaran & Bougie, 2016). After data collection, the data is entered manually in software SPSS (Version 22). For this study, a questionnaire containing **35** items has been used for data collection. To ensure that data is accurate, frequency analysis is performed for all the variables, and values that seem falling out of range are corrected thereof. Screening of data is important as it ensures the appropriateness correctness of data.

#### 4.2.2: Missing Data

In social sciences research, missing data is a common issue. This issue arises when respondents fail to fill in the questionnaire properly. In this study there is a very low percentage of missing data (less than 3%), however, the missing information of less than 10% does not affect the results of the study (Cohen et al., 2014). The literature stresses the EM (expected maximization) method as the best method for dealing with such missing information (Graham, Hofer, Donaldson, MacKinnon, & Schafer, 1997). However, for this study, such a small number of missing information does not have a considerable impact on the study (Preacher & Hayes, 2008b). In this study, the missing information has been dealt with variable mean. This method is used in several other studies (Schwab, 2013). During the processing of data, 12 responses were found where the data was missing more than 10%, and hence, these responses were removed from the final set.

#### 4.3: Demographics Analysis

The first section of our survey questionnaire constituted the demographics-related questions Table 4.1 shows the results of demographics.

**Table 4.1: Demographics of the Study**

<b>Demographic Profile</b>	<b>Respondents (417)</b>	<b>Valid %</b>
<b>Gender:</b>		
<b>Male</b>	331	82
<b>Female</b>	86	18
<b>Age:</b>		
<b>Less than 40 years</b>	266	69
<b>More than 40 years</b>	151	31
<b>CEO Education Level:</b>		
<b>Metric</b>	58	11
<b>FA/ FSC</b>	98	26

<b>BA/BSC</b>	183	46
<b>Masters or above</b>	78	17
<b>Experience:</b>		
<b>1-5 years</b>	127	30
<b>5 - 10 years</b>	122	27
<b>10 - above years</b>	168	43
<b>Firm Age:</b>		
<b>1-3 years</b>	68	14
<b>3-7 years</b>	86	23
<b>7-15 years</b>	138	36
<b>Above 15 years</b>	125	27

#### 4.4: Reliability Analysis

How much the methods of data collection and analysis of evaluation can generate similar responses, determines the level of reliability (M. L. Saunders & Lewis, 2009). As discussed earlier, two approaches are commonly used by the researchers to ascertain the reliability of collected data. The first one is Cronbach's Alpha which shows the level of interrelation between items (Uma & Roger, 2003). The value of 0.7 to 0.8 is considered as good and over 0.8 is treated as excellent. Table 4.2 presents the reliability coefficients of GT, PCB, POS, OCBE, EC, and EP.

**Table 4.2: Reliability Coefficient**

	Cronbach's Alpha	Composite Reliability	(AVE)
<b>EC</b>	0.790	0.863	0.613
<b>EP</b>	0.858	0.898	0.640
<b>GT</b>	0.901	0.919	0.557
<b>OCBE</b>	0.793	0.865	0.616
<b>PCB</b>	0.899	0.917	0.553
<b>POS</b>	0.854	0.902	0.698

#### **4.5: Assessment of Measurement Model**

In the first step, the measurement model is analyzed through PLS-SEM. It indicates how the indicators load on the particular variables. Individual reliability then depends upon the composite reliability. According to Shook et al. (2004), composite reliability is a better choice as this deals with the standardized loadings and errors of measurement for each item. The coefficient alpha has some limitations as it assumes an equal reliability distribution for all the items. The benchmark value of composite reliability is 0.70 (Nunnally, 1978). Convergent validity is analyzed through AVE, while on the other hand, discriminant validity is analyzed Fornell-Larger criterion and outer loading. Under PLS-SEM, there are two ways through which we can assess the model which is, reflective and formative model assessment. The reflective model assessment is based on internal consistency, convergent validity, and discriminant validity evaluation, and the other hand, formative assessment is based on collinearity testing, the significance of weights, and nomological validity. The following sub-sections present the assessment of the measurement model for this study.

#### **4.6: Reflective Measure Validity**

Phillips & Bagozzi, (1986) state that convergent and discriminant validity support the measurement of the reflective measure validity. Convergent validity help to assess the several operationalizations consistency. In this research, a significance level of factor loading is assessed by the values of t-statistics at  $p < .000$ . Results of this study show that all measures of current research fulfill the convergent validity criteria that are proposed by (Gefen, Straub, & Boudreau, 2000). In addition, convergent validity is also assessed by the values of AVE, and results show that all measures AVE values are higher than the benchmarking values 0.50 that is proposed by



(Fornell & Larcker, 1981). Furthermore, it has also been shown that at least 50% measurement variance was captured by the latent construct (Chin, 1998).

**Table 4.3: Outer Loading and AVE for Constructs**

	EC	EP	GT	OCBE	PCB	POS
<b>EC1</b>	0.813					
<b>EC2</b>	0.766					
<b>EC3</b>	0.809					
<b>EC4</b>	0.740					
<b>EP2</b>		0.842				
<b>EP3</b>		0.715				
<b>EP4</b>		0.708				
<b>EP5</b>		0.849				
<b>GT1</b>			0.701			
<b>GT2</b>			0.741			
<b>GT3</b>			0.793			
<b>GT4</b>			0.737			
<b>GT5</b>			0.721			
<b>GT6</b>			0.795			
<b>GT7</b>			0.737			
<b>GT8</b>			0.733			
<b>GT9</b>			0.752			
<b>OCBE1</b>				0.804		
<b>OCBE2</b>				0.754		
<b>OCBE3</b>				0.794		
<b>OCBE4</b>				0.786		
<b>PCB1</b>					0.850	
<b>PCB2</b>					0.739	
<b>PCB3</b>					0.700	
<b>PCB4</b>					0.846	

<b>PCB5</b>		0.709
<b>PCB6</b>		0.681
<b>PCB7</b>		0.751
<b>PCB8</b>		0.727
<b>PCB9</b>		0.666
<b>POS1</b>		0.892
<b>POS2</b>		0.728
<b>POS3</b>		0.817
<b>POS4</b>		0.895
<b>EP1</b>	0.869	

Discriminant validity is used to assess the validity of the constructs. It tells us the level of divergence of different constructs (E. Hair, Halle, Terry-Humen, Lavelle, & Calkins, 2006). It can be measured in different ways (I) Heterotrait-Monotrait (HTMT) Analysis, (II) cross-loadings, (III) Fornell-Larcker criterion. Thirdly, discriminant validity is assessed by taking the square root of AVE for each factor with its correlations with another factor (Fornell & Larcker, 1981). Table 4.4 represents that the square root of AVE is higher than correlations among factors.

**Table 4.4: Constructs Correlation Matrix**

	<b>EC</b>	<b>EP</b>	<b>GT</b>	<b>OCBE</b>	<b>PCB</b>	<b>POS</b>
<b>EC</b>	0.783					
<b>EP</b>	0.688	0.800				
<b>GT</b>	0.522	0.642	0.746			
<b>OCBE</b>	0.437	0.552	0.365	0.785		
<b>PCB</b>	0.459	0.645	0.520	0.294	0.744	
<b>POS</b>	0.533	0.681	0.503	0.402	0.510	0.836

In PLS, to ensure the strong relationship of the construct with its indicators in comparison to others, discriminant validity is used. According to Henseler et al. (2014), these assessment approaches do consistently identify a lack of discriminant validity in some common research settings. Therefore, an alternative method namely the Hetrotrait-Monotrait ratio of correlation (HTMT) is used alternatively to assess the discriminant validity. The value for HTMT ratio must not be greater than 0.85 (R. B. Kline, 2011), or in another approach should not be greater than 0.90 (Gold, Malhotra, & Segars, 2001). Table 4.5 presents the results of the Hetrotrait-Monotrait ratio of correlation.

**Table 4.5: Hetrotrait-Monotrait Ratio of Correlation (HTMT)**

	EC	EP	GT	OCBE	PCB	POS
EC						
EP	0.822					
GT	0.600	0.706				
OCBE	0.563	0.662	0.431			
PCB	0.526	0.712	0.562	0.336		
POS	0.635	0.771	0.565	0.478	0.577	

#### 4.7: Analysis Structural Model Estimation

The structural model helps to answer the research questions by testing the proposed research hypotheses. After the acceptable values of the validity and reliability in the measurement model, the structural model analyzes to test the proposed hypotheses. Structural model examination presents how empirical data supports the underlying theories employed in this research. In addition, it also helps to analyze the predictive abilities of theoretical models and relationships of hypothesized measures. In this regard, this study employs the PLS software to minimize the error and to maximize the variance explained in all endogenous

measures. Therefore, the level to which the theoretical model attains its objectives can be judged by examining the values of coefficient determination ( $R^2$ ) for endogenous variables.

Therefore, the validity of the structural model is assessed using the coefficient of determination ( $R^2$ ) and path coefficients. In addition, this study also assesses the mediation relationships that are being proposed in the research model. Table 4.6 presents the eight direct relation research hypotheses that were analyzed in the structural model.

**Table 4.6: List of Hypotheses**

H1a	GT is significantly related to PCB
H1b	GT is significantly related to POS
H1c	GT is significantly related to OCBE
H1d	GT is significantly related to EC
H1e	GT is significantly related to EP
H2a	PCB is significantly related to OCBE
H2b	PCB is significantly related to EC
H3a	POS is significantly related to OCBE
H3b	POS is significantly related to EC
H4	OCBE is significantly related to EP
H5	EC is significantly related to EP

There is a total number of five direct relation research hypotheses. H1a, H1b, H1c, H1d, and H1e show the direct relationship between GT with PCB, POS, OCBE, EC, and EP. H2a and H2b show the direct relationship between PCB with OCBE and EC. H3a and H3b represent the

direct relationship between POS with OCBE and EC. H4 represents the direct relationship between OCBE with EP. H5 represents the direct relationship between EC with EP.

#### **4.8: Coefficient of Determination ( $R^2$ )**

The variance in the dependent variable due to the independent variable is presented by the  $R^2$ . In this regard, a greater  $R^2$  value presents the higher predictive ability of the inner model (SM). The function of the Smart-PLS algorithm helps to attain the  $R^2$  values. In addition, a bootstrapping method was utilized to get the values of T- statistics, and in the current study, 1000 samples were produced by bootstrapping.

#### **4.9: Path Coefficients**

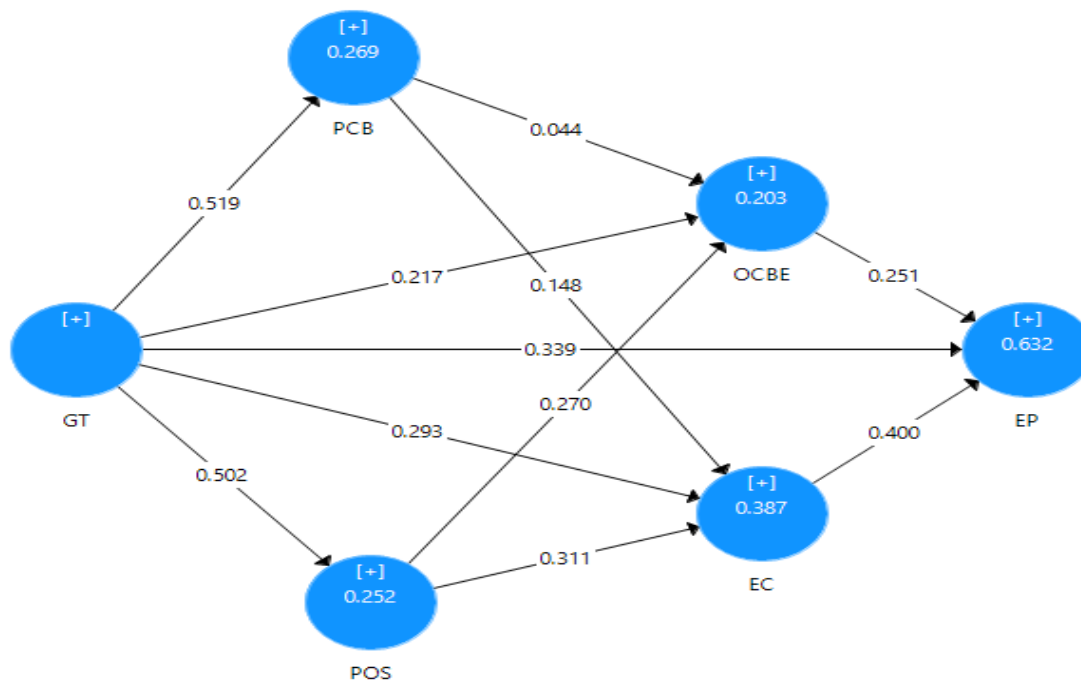
A link or connection of two different variables in an inner model presents the hypothesis, while the relationship of two different variables in an inner model is known as a path coefficient. Normally, the values of path coefficients present the results summary of that particular relationship. To evaluate the regression model, the construct score is calculated through the algorithm, which is presented by “p”. A value of p less than 0.05, presents the positive and accepted relationship. In addition, the value of t-statistics should be higher than 1.96.

#### **4.10: Relevance and Significance of Path Coefficient**

The evaluation of the magnitude and significance level of path coefficients is permitted by the structural model. However, the execution of bootstrapping is required for the evaluation of the structural model in PLS-SEM. Using the PLS, the developed hypotheses were tested by examining the path coefficient, path significance, and variance explained. To ensure that the model obtains adequate validity and reliability test of convergent validity, discriminant validity, and reliability are done before test hypotheses. After running the bootstrapping procedure, the

structural model with results is shown in figure 4.2. The results of path coefficient, significance level, and t-statistics are presented in table 4.7.

**Figure 4. 1: Structural Model with Path Coefficient**



**Table 4.7: Path Coefficients**

	Original Sample (O)	T Statistics	P Values
EC -> EP	0.400	4.842	0.000
GT -> EC	0.293	4.940	0.000
GT -> EP	0.339	7.133	0.000
GT -> OCBE	0.217	3.334	0.001
GT -> PCB	0.519	9.804	0.000
GT -> POS	0.502	9.461	0.000
OCBE -> EP	0.251	4.729	0.000
PCB -> EC	0.148	2.377	0.018

PCB -> OCBE	0.044	0.692	0.489
POS -> EC	0.311	3.817	0.000
POS -> OCBE	0.270	4.233	0.000

There are five direct relationship research hypotheses and the result of the structural model presents that all hypotheses of this research are supported, except one. PCB, POS, OCBE, EC, and EP are significantly influenced by GT, ( $\beta=0.519$ ,  $p < 0.000$ ), and ( $\beta=0.502$ ,  $p < 0.000$ ), ( $\beta=0.217$ ,  $p < 0.001$ ), ( $\beta=0.293$ ,  $p < 0.000$ ), and ( $\beta=0.339$ ,  $p < 0.000$ ) respectively, which support the hypotheses H1a, H1b, H1c, H1d, and H1e, respectively. Similarly, OCBE and EC are significantly influenced by PCB ( $\beta=0.148$ ,  $p < 0.018$ ), and ( $\beta=0.044$ ,  $p < 0.489$ ), in which support hypotheses H2a is supported, while H2b is not supporting. Furthermore, OCBE and EC are significantly influenced by POS ( $\beta=0.270$ ,  $p < 0.000$ ), and ( $\beta=0.311$ ,  $p < 0.000$ ), which present that hypotheses H3a and H3b are supported.

Finally, the results of the empirical analyses show that OCBE and EC have a positive effect on EP, ( $\beta=0.251$ ,  $p < 0.000$ ), and PWB ( $\beta=0.400$ ,  $p < 0.000$ ), which support hypotheses H4, and H5 respectively.

#### **4.11: Mediating Effect**

In the PLS path model, a situation in which a mediating variable to some extent absorbs the effect of an exogenous on an endogenous construct represents the mediation (Sarstedt, Ringle, Henseler, & Hair, 2014). Instead of the traditional Sobal (1982) test, this study has utilized the Preacher and Hayes (2008a) process for the analysis of mediation because it does not have a strict assumption of distribution (J. F. Hair et al., 2013). Preacher and Hayes (2008a) process utilize the bootstrapping technique in two steps. First of all, the significance level of a direct relationship is checked by employing bootstrapping, in which mediating variable is not

present in the model. After that, utilizing the path coefficient when the mediator is included in the model, the significance of the indirect effect and associated T-values are checked.

Finally, this study analysis the intervening role of POS, PCB, OCBE, and OC. The results of the analysis show that intervening variables mediate the relationship between independent variables GT and dependent variable EP. This study analyzes the sequential role of POS, PCB, OCBE, and OC between GT and EP. The results show that among the all paths from GT to EP through POS, PCB, OCBE, and OC; two paths (PCB -> OCBE -> EP) and (GT -> PCB -> OCBE -> EP) are not reaching statically significantly, while all the other paths prove the sequential mediation relationship between GT and EP.

**Table 4.8: Specific Indirect Path Coefficients**

	<b>Original Sample (O)</b>	<b>T Statistics</b>	<b>P Values</b>
<b>GT -&gt; PCB -&gt; EC</b>	0.077	2.184	<b>0.029</b>
<b>GT -&gt; POS -&gt; EC</b>	0.156	3.588	<b>0.000</b>
<b>GT -&gt; EC -&gt; EP</b>	0.117	3.412	<b>0.001</b>
<b>PCB -&gt; EC -&gt; EP</b>	0.059	2.184	<b>0.040</b>
<b>GT -&gt; PCB -&gt; EC -&gt; EP</b>	0.031	1.063	<b>0.048</b>
<b>POS -&gt; EC -&gt; EP</b>	0.124	2.788	<b>0.006</b>
<b>GT -&gt; POS -&gt; EC -&gt; EP</b>	0.062	2.579	<b>0.010</b>
<b>GT -&gt; OCBE -&gt; EP</b>	0.055	3.213	<b>0.001</b>
<b>PCB -&gt; OCBE -&gt; EP</b>	0.011	0.637	<b>0.524</b>
<b>GT -&gt; PCB -&gt; OCBE -&gt; EP</b>	0.006	0.640	<b>0.522</b>
<b>POS -&gt; OCBE -&gt; EP</b>	0.068	2.846	<b>0.005</b>
<b>GT -&gt; POS -&gt; OCBE -&gt; EP</b>	0.034	2.468	<b>0.014</b>
<b>GT -&gt; PCB -&gt; OCBE</b>	0.023	0.691	<b>0.490</b>
<b>GT -&gt; POS -&gt; OCBE</b>	0.135	3.234	<b>0.001</b>



Organizations tend to use pollution reduction strategies along with stewardship and sustainable development to achieve a competitive edge suggests the natural-resource-based theory (Hart, 1995; Hart and Dowell, 2011). Moving along with the viewpoint, we investigated the role of Green Training in aiding the hospitality industry in Pakistan to enhance Environmental Performance. This study adds to the literature by examining the direct and indirect effect of Green Training through distinctive implementations considered in abundance or solely. Findings mar that GT has a direct influence on EP, OCBE, EC, POS, and PCB. The result is consistent with prior GHRM literature (Renwick et al., 2013), also with the most recent findings of Zibarras and Coan (2015), who affirmed that encouraging training is considered to be the most effective tool by the HR managers.

#### **4.12: The goodness of Fit:**

Furthermore, this study examines the cross-validated redundancy  $Q^2$  to evaluate the predictive relevance proposed by Hellberg et al (1985). The fact that the value of  $Q^2$  is different from zero indicates that the model is fit. Adequacy of the fit although, the overall Goodness of Fit (GOF) indices are not produced by the PLS-SEM method, because the modeling of the PLS route does not optimize any global scalar functions, and because it typically lacks an index that may provide the user with a global validation of the model, it is not recommended. To evaluate the model explanatory power, the evaluation of  $R^2$  values is the main technique to be used in the estimation process (Chin, Thatcher, and Wright 2012). The quality of fit demonstrates that there is a practical solution to this issue; it may be intended to serve as an index for global validation of the PLS model. It is possible to determine goodness of fit by calculating the geometric mean of average commonalities and the average  $R^2$  value.

**Table 4.9: Specific Indirect Path Coefficients**

	<b>SSO</b>	<b>SSE</b>	<b>Q<sup>2</sup> (=1-SSE/SSO)</b>
<b>CE</b>	1,472.000	1,144.031	0.223
<b>EP</b>	1,840.000	1,138.749	0.381
<b>GEI</b>	1,104.000	1,104.000	
<b>GT</b>	3,312.000	3,312.000	
<b>OCBE</b>	1,472.000	1,301.423	0.116
<b>PCB</b>	3,312.000	2,857.318	0.137
<b>POS</b>	1,472.000	1,232.922	0.162

## **CHAPTER 5: CONCLUSION AND RECOMMENDATION**

### **5.1: Conclusion**

This study contributes to the prevailing knowledge and theory by describing how and why a high level of GT leads to higher performance of the environment. Earlier studies lack to analyze the relationships between GT and environment performance through the intervening role of PCB, POS, OCBE, and EC. This study develops a sequential mechanism and analyzes the mediating role of PCB, POS, OCBE, EC between GT and EP. Similarly, this study examines the mediating role of PCE between GT and OCBE. The results present that PCB and POS is an important mediation between GT and OCBE and help to explain the relationship, rather than the direct relation of GT and OCBE. These findings show consistency with the existing literature. Similarly, our study also presents that PCB and POS significantly mediate the relationship between GT and EC. In addition, the sequential path from GT, POS, OCBE, and EP is highly significant as compared to other paths.

### **5.2: Theoretical Implications**

As suggested by the results of this study, it is reflected that all of the hypotheses of this study are supported. This research has been conducted in a developing economy and a hotel, industry offering purpose theoretical implications. As far as the direct relationships are concerned, it has been established by this study that, GT positively impacts an employee's PCB and POS. Furthermore, this study adds to the literature by demonstrating that facts are generalizable to the hotel industry of developing economies. The presence of a limited conceptually based measure provides researchers and practitioners with little opportunity to document employees' level of GT and impairs the ability to identify and evaluate viable organizational strategies for promoting

WLB (Kraimer, Seibert, Wayne, Liden, & Bravo, 2011). This study is in response to the research gaps and links the antecedents and outcomes of GT to provide a comprehensive theoretical framework that leads to environmental performance. As suggested by the results, it has been established that PCB and POS are important and help to enhance the OCBE and EC of employees.

### **5.3: Practical Implications**

In terms of outcome terminology for the HRM, in most organizations in Pakistan, the practical implication to struggle the future outcome of the economy is unpredictable because of the constant development of technology. Training shall be conducted by HRM to improve and grow employees' PCB. Furthermore To achieve organizational environmental performance individual environmental performance must be initialized. Employee environmental satisfaction may be considered as a facilitator in achieving individual environmental performance by managers. Linking EP and GT, this research study facilitates managers to enhance such decision-making. So the managers may take the view that employee environmental satisfaction can act as a catalyst in achieving organizational environmental performance goals followed by individual environmental performance.

### **5.4: Limitations and Recommendations**

Along with the several practical and theoretical implications, this research presents some limitations. First, the sample of the current study was taken from the hotel and tourism sector, this context may be distinctive enough to limit the findings viability. Second, this study collect the data just from a single source, which has less weight as compared to those collected from different sources. The data of this study were collected at a single time frame, which can create response bias. Although, this study follows the guidelines of (Podsakoff, MacKenzie, Lee, &

Podsakoff, 2003) to reduce the common method bias. Furthermore, studies of non-experimental nature can restrict the direct causality examination. Third, along with these variables, some different constructs may also help to explain the paths from independent variables to dependent variables. In addition, we can analyze the relationship in more depth and can consider the variable as second order. Lastly, along the mediation paths, we can analyze the moderating effects to enhance our existing knowledge.

### Questionnaire:

There are six (6) parts of the Questionnaire, which should take about 10-15 minutes to complete. Please answer **ALL** the questions by typing your answer in the blank text box [       ] or “checking” the box [  ] that **BEST** describes your situation.

<b>General Instruction and Information:</b>				
Total number of questionnaire pages	Eight (8)			
Your response to the questionnaire in	English		Urdu	
Source of questionnaire	E-mail	By Post	Face to Face	Survey Firm
Address of Student	Tayyabah Hammad: Superior University, Lahore, Punjab			

**Note:** For mail (by Post) response kindly uses the student address. Postal expenses can be payback on demand: Yes/No

### PART-A: Firm Profile

<b>Respondent's Information:</b>			
Name (Optional)		Company Name	
Designation		Age	
Sex		Contact Number	
Education:		Experience:	
Metric		1-5 years	
FA/ FSC		5 - 10 years	
BA/BSC		10 - above years	
Masters or above			
<b>Firm Information:</b>			

Location of Business			No. of Employees		
The company is Registered by AH	Yes	No	The Founder is	M	F
Age of Company			Business Type		
1-3 years			Hotel Industry		
3-7 years			3-Star		
7-15 years			4-Star		
Above 15 years			5-Star		

### PART-B: Green Training

Daily et al. (2012) Jabbour (2015)

1= Strongly Disagree, 2= Disagree, 3= Slightly Disagree, 4= Neutral, 5= Slightly Agree, 6= Agree, 7= Strongly Agree

An adequate amount of training in environmental issues is provided for employees	1	2	3	4	5	6	7
Employees can have the chance to be trained on environmental issues	1	2	3	4	5	6	7
Employees receive environmental training frequently	1	2	3	4	5	6	7
Employees use environmental training effectively	1	2	3	4	5	6	7
Employees have many opportunities to use environmental training	1	2	3	4	5	6	7
There is adequate evaluation of employees' performance after environmental training	1	2	3	4	5	6	7

### Perceived Control Behaviour

Cordano and Frieze (2000)

It is within my control whether or not I implement	1	2	3	4	5	6	7
I can obtain the resources needed to increase the number	1	2	3	4	5	6	7
Facility management supports my efforts to implement	1	2	3	4	5	6	7

### Organizational citizenship Behavior for environment

Pham et al. (2019)

1 “Strongly disagree”, 7 “Strongly agree”.

I suggest new practices that could improve the hotel	1	2	3	4	5	6	7
I encourage my colleagues to adopt more environmentally	1	2	3	4	5	6	7
I stay informed of the hotel's environmental efforts	1	2	3	4	5	6	7
I make suggestions about ways to protect the environment	1	2	3	4	5	6	7
I volunteer for projects or activities that address the hotel	1	2	3	4	5	6	7
I spontaneously give my time to help my colleagues	1	2	3	4	5	6	7
I undertake environmental actions that contribute positively	1	2	3	4	5	6	7

### Environment Performance

(C.-H. Wang, 2019); (Ramanathan, 2018); (Chiou et al., 2011); (Vachon and Mao, 2008)

(1) Company has achieved important environment-related certifications.	1	2	3	4	5	6	7
(2) On average, overall environmental performance of our company has improved over the past five years.	1	2	3	4	5	6	7
(3) The resource consumption e.g. water, electricity, and gas has decreased during the last 3 years.	1	2	3	4	5	6	7
(4) Improvement of environmental compliance.	1	2	3	4	5	6	7
(5) Complying with environmental regulations (i.e., emissions, waste disposal)	1	2	3	4	5	6	7



### Perceived Organizational Support

My employer values my contributions	1	2	3	4	5	6	7
My employer strongly considers my opinions	1	2	3	4	5	6	7
Values help is available from my employer when I have a problem	1	2	3	4	5	6	7
My employer really cares about my well-being	1	2	3	4	5	6	7

### Employee Commitment

Wang (2016)

I am committed to always implementing green behaviors at work	1	2	3	4	5	6	7
If I don't implement green behaviors at work, I will feel regret	1	2	3	4	5	6	7
If I don't implement green behaviors at work, I will feel guilty	1	2	3	4	5	6	7
Spending time implementing green behaviors at work makes me very happy	1	2	3	4	5	6	7

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