Desperate Times Require Desperate Measures: How Can Green Hotel Performance and Green Creativity Be Enhanced?

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ABSTRACT

With mounting concerns about climate change, the hospitality industry in developing nations is tasked with adopting new sustainable practices that will slow down the effects of climate change. Frontline employees, who are usually in direct contact with customers, have a significant role to play in the hospitality industry's transition to green behaviours. However, the behavioural procedures through which they contribute to green outcomes are underexplored. As such, the research interrogates the effect of Green Supervisor Support (GSS) on Green Task Performance (GTP), and also how the relationship is mediated by Green Self-Efficacy (GSE) and Green Creativity (GC). Furthermore, the study uses Green Descriptive Norm to moderate the relationships. The research uses a multi-theoretical framework to develop a sequentially moderated mediation that would explain the precursors of green behaviours in eco-conscious hotels in Nigeria.

To fulfil its objectives, data was collected from 402 frontline employees working in eco-certified hotels across Nigeria. A time-lagged survey design was employed, and the hypothesized model was tested using SmartPLS structural equation modeling. Consequently, the findings show that GSS, directly and indirectly, enhances GTP significantly with GSE and GC as mediators. Furthermore, the relevance of psychological and creative mechanisms which transform supervisor support into positive green behaviours. Besides, the results reveal that GDN significantly moderates the relationship between GC and GTP. The study contributes to literature by analysing the collective role of supervisor support, self-efficacy beliefs and green norms in influencing sustainable practices among frontline employees. In practical

terms, the study provides hotel managers with strategic solutions that would foster resilient green behaviours through support, capacity building and peer influence. As this research provides an African context, it extends the literature by providing new and valuable insights to emerging research on green human resource management and employee-driven green practices in the global South.

Keywords: Green Supervisor Support, Green Self-Efficacy, Green Creativity, Green Descriptive Norms, Green Task Performance, Eco-Hotels, Sustainability, Nigeria.

ÖZ

İklim değişikliğiyle ilgili artan endişelerle birlikte, gelişmekte olan ülkelerdeki konaklama sektörü iklim değişikliğinin etkilerini yavaşlatacak yeni sürdürülebilir uygulamaları benimsemekle yükümlüdür. Genellikle doğrudan müşterilerle iletişimde olan ön saflardaki çalışanlar, konaklama sektörünün çevreci davranışlara geçişinde önemli bir role sahiptir. Ancak, otel çalışanlarının çevreci sonuçlara nasıl katkıda bulunduklarına dair davranışsal süreçler yeterince incelenmemiştir. Bu bağlamda, araştırma Yeşil Yönetici Desteği'nin (Green Supervisor Support - GSS) Yeşil Görev Performansı (Green Task Performance - GTP) üzerindeki etkisini ve bu ilişkinin Yeşil Öz-Yeterlilik (Green Self-Efficacy - GSE) ve Yeşil Yaratıcılık (Green Creativity - GC) tarafından nasıl aracılık edildiğini incelemektedir. Ayrıca, Yeşil Tanımlayıcı Norm'un (Green Descriptive Norm - GDN) bu ilişkileri nasıl düzenlediği araştırılmaktadır. Çalışma, Nijerya'daki çevre bilinci yüksek otellerde yeşil davranışların öncüllerini açıklayacak ardışık olarak düzenlenmiş bir aracılı düzenleme modeli geliştirmek için çoklu kuramsal bir çerçeve kullanmaktadır.

Araştırmanın amaçlarına ulaşmak için Nijerya genelinde eko-sertifikalı otellerde çalışan 402 ön saflardaki çalışanlardan veriler toplanmıştır. Zaman aralıklı anket tasarımı uygulanmış ve önerilen model SmartPLS yapısal eşitlik modellemesi kullanılarak test edilmiştir. Bulgular, GSS'nin GSE ve GC aracılığıyla doğrudan ve dolaylı olarak GTP'yi önemli ölçüde artırdığını göstermektedir. Ayrıca, yönetici desteğini olumlu yeşil davranışlara dönüştüren psikolojik ve yaratıcı mekanizmaların önemi ortaya çıkmıştır. Bunun yanında, sonuçlar GDN'nin GC ile GTP arasındaki ilişkiyi önemli ölçüde düzenlediğini ortaya koymaktadır. Çalışma, yönetici desteği, öz-

yeterlilik inançları ve yeşil normların ön saflardaki çalışanların sürdürülebilir uygulamaları üzerindeki ortak rolünü analiz ederek literatüre katkı sağlamaktadır. Pratik açıdan ise, çalışma otel yöneticilerine destek, kapasite geliştirme ve akran etkisi yoluyla dirençli yeşil davranışları teşvik edecek stratejik çözümler sunmaktadır. Bu araştırma Afrika kıtasında icra edildiğinden, literatürü küresel Güney'deki yeşil insan kaynakları yönetimi ve çalışan odaklı çevreci uygulamalara yönelik yeni ve değerli içgörülerle genişletmektedir.

Anahtar Kelimeler: Yeşil Yönetici Desteği, Yeşil Öz-Yeterlilik, Yeşil Yaratıcılık, Yeşil Betimleyici Normlar, Yeşil Görev Performansı, Eko-Oteller, Sürdürülebilirlik, Nijerya.

DEDICATION

To the Almighty God

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Chapter 1

INTRODUCTION

Environmental sustainability has gradually become a key concern for businesses all around the world, especially in high-impact service industries such as hospitality. Understanding the behavioural variables that underpin the effective implementation of green initiatives has become crucial as businesses adapt to growing stakeholder expectations and environmental issues. Chapter one gives an overview of the study by outlining the backdrop and justification, describing the research question, and identifying important constructs relevant to the inquiry. It also discusses the study's aims and research issues, as well as how the research fits into the context of Nigerian eco-certified hotels. The chapter finishes by discussing the dissertation's structure and intended contributions to both theory and practice.

1.1 Background

In a competitive market environment where the global environment is continuously deteriorating due to industrial toxic waste and hazardous pollution, many businesses are now aware of the importance of protecting the ecological environment and are incorporating green processes into their operation (Karatepe et al., 2023). Organisations are beginning to deploy various strategies to accomplish their green goals as the need to combat global warming and climate change is on the rise (Shui et al., 2025). As a result, both scholars and managers in the tourism industry are taking cognisance of the importance of adopting environment-friendly strategies in light of the negative impact the industry has had on the environment. Recent investigations

have identified the tourism industry as a significant contributor to the global carbon footprint, and the hospitality sector has long been regarded as one of the most resource-intensive sectors of the tourism industry (Han & Yoon, 2015; Yu et al., 2017). The hospitality sector which is traditionally perceived as a high-consumption and high-waste industry. Consequently, hotels, restaurants, and tourism enterprises are now promoting eco-conscious behaviour, aligning their practices with the United Nations Sustainable Development Goals (SDGs) such as responsible consumption (SDG 12), climate action (SDG 13), and affordable clean energy (SDG 7).

Recent research from Statista (2023) supports this change by showing that 75% of leaders in the lodging industry have made environmental protection a key strategic priority, underscoring the industry's growing dedication to sustainability. Furthermore, 43% of tourists now say they actively look for eco-friendly or green-certified lodging when making travel plans, a sign that industry initiatives and consumer expectations are changing simultaneously (Statista, 2023a). Furthermore, due to a combination of growing demand and more investment in sustainable practices, the worldwide market for sustainable tourism surpassed USD 2 trillion in 2023 (Statista, 2023b).

These changes are operational in addition to strategic. Numerous hotel chains have reported quantifiable environmental improvements. For example, over 85% of international hotel brands now incorporate sustainability criteria into their procurement and operations, and the world's energy consumption per hotel room has decreased by over 10% in the last five years (Statista, 2023c). Through the use of energy-efficient technologies, the reduction of single-use plastics, the promotion of water conservation, and green certification initiatives, hospitality companies are bringing their operations into line with international sustainability standards.

However, infrastructure and investment alone do not determine an organization's funcionality. The conduct and involvement of frontline staff frequently determine whether these green initiatives are effective. Employees in the hotel industry, who serve as the company's first point of contact with clients, are essential to implementing green practices and influencing the provision of ecologically conscious services (Chan et al., 2014; Waqas et al., 2025). Realising sustainability goals depends on their individual and group actions, such as cutting back on waste, using less energy, and educating visitors (Legendre et al., 2024). As a result, internal systems that encourage employees to operate in a green manner, like social norms, supervisor support, and green human resource management, have become important topics in both academic research and management practice.

Personnel in the hospitality industry are usually an integral part of an organisation's effort to be sustainable; hence, employees are ambassadors that embody their organisation’s environmental stances, consequently leading to a more sustainable firm (Darban et al., 2022; Kim et al., 2020). As essential stakeholders in every organisation, Ciocirlan (2017) stated that employees at all levels have an essential role in assisting their firm in achieving environmental sustainability via their everyday tasks. Generally, task performance is regarded in tourism and hospitality as crucial for a competitive advantage (Kim & Kim, 2021). It can be considered as evaluating how an employee contributes to the workplace (Diamantidis & Chatzoglou, 2019) in light of how they effectively deliver services and respond to customers' needs (Kaya & Karatepe, 2020).

Despite the importance of the concept, only a handful of scholars have investigated it, thereby creating a need for further investigation. Paillé & Francoeur (2022) stress the

need to investigate factors that lead to the accomplishment of necessary green tasks due to its scarcity in extant literature. Furthermore, Norton et al. (2015) stated that the existing sustainability research has widely recorded the variables that motivate personnel to conduct discretionary environmental tasks. Still, it has widely overlooked the examination of determinants of obligatory green task performance.

1.2 Definition of concepts

The main concepts and structures used in this dissertation are defined in this part to guarantee conceptual coherence and clarity. These concepts are essential to the study questions and hypotheses and serve as the foundation for the theoretical framework.

1.2.1 Green Supervisor Support (GSS)

Green supervisor support refers to the extent to which supervisors encourage, support, and role-model environmentally responsible behaviours within the workplace (Olorunsola et al., 2024). GSS encompass leaders providing environmental-related guidance, feedback, and resources that promote ecological practices among employees (Olorunsola et al., 2024). Supervisor Support is based on organisational support theory, which states that employees view supervisor support as a reflection of the organisation's overall values and commitments (Eisenberger et al., 2002). Green supervisor support is a derivative of supervisor Support. In a green context, this assistance promotes psychological safety and motivation to engage in sustainable work practices (Paillé & Francoeur, 2022).

1.2.2 Green Self-Efficacy (GSE)

Green self-efficacy refers to a person's confidence in their own capacity to effectively fulfil their duties and obligations at work in an ecologically responsible way, according to Chen et al. (2015). It is a psychological tool that gives workers the confidence to start and continue green initiatives. GSE, which has its roots in Bandura's (2001) social

cognitive theory, is impacted by social persuasion, environmental mastery, and workplace observational learning.

1.2.3 Green Creativity (GC)

Green creativity refers to the generation of novel and useful ideas related to green products, services, processes, or practices that contribute to environmental sustainability (Chen & Chang, 2013). Green Creativity encompasses innovative and creative thinking geared towards reducing environmental impact and improving sustainability outcomes (Shahbaz et al., 2025). Green creativity is regarded as a necessary precursor to green innovation. Extant literature has highlighted that environmental-related creativity is fostered by intrinsic motivation, supporting leadership, and contextual resources (Li et al., 2020; Liu et al., 2024).

1.2.4 Green Task Performance (GTP)

Green task performance can be defined as the degree or the level to which employees carry out their formal job responsibilities in ways that are environmentally sustainable (Bissing-Olson et al., 2013). Green task performance encompasses measures such as conserving energy, reducing waste, and following eco-friendly processes in everyday work activities and following green work protocols (Olorunsola et al., 2024; He et al., 2021). Hence, green task performance expresses the operational outcomes of green behaviour within the scope of an employee's job role.

1.2.5 Green Descriptive Norms (GDN)

Green descriptive norms are employees' assessments of the prevalence of environmentally responsible activities among their colleagues inside the firm. Green descriptive norms are a derivative of descriptive norms, which are rooted in social norm theory. Hence, the focus theory of social norms states that descriptive norms offer proof of behaviour (Osei et al., 2022). Current literature defines descriptive

norms as an individual perspective regarding the prevalence of a behaviour (Rivis & Sheeran, 2003). Additionally, descriptive norms serve as a quick decision-making tool for determining appropriate behaviour in a given circumstance (Salmivaara et al., 2021). Through social learning processes, these norms influence people's perceptions of normal and acceptable behaviour, which in turn affects how they behave (Nimri et al., 2020). Thus, strong green descriptive norms in the hospitality industry foster a collective culture of environmental stewardship.

1.3 Problem Statement and Rationale for the Study.

Over the past decade, increased pressure on firms to embrace sustainable business practices has led to a rise of interest in environmental concerns across a variety of industries, including hospitality (Jones et al., 2016). As the hospitality industry grows, both academics and practitioners are becoming increasingly concerned about its negative environmental impact (Chan & Hsu, 2016). Despite continuous efforts, the hospitality sector continues to be one of the most resource-intensive parts of the travel industry, using a significant amount of both energy and water and generating a considerable amount of waste (Bux & Amicarelli, 2023). Although several green initiatives have been introduced in the hospitality sector however many firms still face challenges in ensuring that workers actively participate in converting these programs into concrete workplace green practices (Tanveer et al., 2024). Additionally, extant literature has highlighted the importance of employee pro-environmental behaviour. However, little is known about the mechanism by which green supervision fosters employee green behaviour. Furthermore, in the hotel industry, the concept of "green supervisor support," which measures how much supervisors encourage and support ecologically conscious behaviour, is still not well understood, particularly when it comes to employee-level performance. likewise, the sequential processes by which

such support may result in improved performance on green tasks are frequently overlooked in current research.

Additionally, the psychological mechanisms behind green employee behaviour are not well understood in the present corpus of studies (Norton et al., 2015; Tang et al, 2023). Also, how green self-efficacy and green creativity role as mediators in the relationship between green supervisor support and green task performance is still not well understood. Similarly, the potential moderating effect of green descriptive norms, which reflect employees' perceptions of the prevalence of green behaviour among colleagues, has not received adequate scholarly attention. Given that social signals frequently impact individual workplace behaviour, ignoring this component may result in inadequate theoretical models.

Thus, drawing from the job demands-resources (JD-R) theory, this current study posits that green supervisor support (GSS) is a job resource that can help employees cope with job demands and improve their task performance. However, very little is known about the relationship between GSS and how it impacts on green task performance (GTP). The idea of GSS and its direct relationship with GTP is mostly absent from the literature, even though many studies outline how vital support from supervisors is for performance. As a result, the lack of this kind of research has led to a gap in sustainability literature, particularly in relation to the positive effect of supervisor support on employee performance.

Therefore, GSS, being firmly rooted in green strategies like green human resource management, effectively enhances GTP within the hotel industry. Green supervisors have created a supportive environment for employees to engage in green tasks and

promote sustainable practices (Muisyo et al., 2022). They offer guidance and support, ensuring that employees comprehend their green tasks and can execute them effectively (Chan & Hsu, 2016). Green supervisors can encourage employees through coaching, feedback, and rewards, consequently making it more likely that they will participate in green activities outside of work (Karatepe et al., 2021). Moreover, green supervisors can provide resources and training materials to help employees grasp the significance of green practices and their effects on the environment.

Prior studies have demonstrated that support from supervisors increases employees' self-efficacy. It has been established that green self-efficacy (GSE) activates employees' environmental beliefs and attitudes, resulting in a positive effect on their green behaviours (Guo et al., 2019). There are various factors can either strengthen or weaken this belief, which includes the presence or absence of supportive supervisors (Zhang et al, 2021). Studies have shown that where supervisors provide support, GSE is increased, leading to improved environmental performance (Nisar et al., 2022). Arguably, an organisation’s environmental practices rest on an organisational culture ingrained in ethical values. Zhu et al. (2014) show that organisations in the service industry can show leadership by building an environmental culture that can be replicated by employees within and outside the work environment. As this becomes firmly ingrained in the work environment, new behavioural outcomes would be expected, which would in turn birth green descriptive norms (GDN). To this end, GDN refers to behavioural expectations within a society or community that have been accepted as the norm. Although GDN, which stems from accepted behavioural expectations, emerges at the organisational level, its implementation would not be effective without the full cooperation of the employees (Tian et al, 2020). GDN can

also refer to the perception of green behaviours in an organisation. When employees perceive that their colleagues are engaging in green behaviours, they are more likely to adopt green practices themselves (Chen, 2016), subsequently resulting in stronger employee GSE and GTP.

While research on task performance has been diverse, current research is limited, with opportunities for further interrogation. For example, He et al. (2019) measured the impact of corporate social responsibility perception on job performance among hotel employees in China. Measuring the mediating role of organisational citizenship behaviour between corporate social responsibility and task performance, the study found an indirect but positive effect of corporate social responsibility on organisational citizenship behaviour and task performance. Similarly, Bhardwaj & Kalia (2021) found that vigour and absorption impacted task performance after a dearth of information relating to the impact of organisational culture and employee engagement on task performance necessitated them to probe the relationship among variables. Other studies have examined the relationship among incivility in the workplace, work engagement and performance (Wang & Chen, 2020), relationship between performance and employee training (Arwab et al., 2022), how work load and supervisor support affect the role of emotional exhaustion on service quality (Grobelna, 2021), the relationship between supervisor support and performance among new hotel employees (Chen & Wu, 2020). the buffering role of co-worker support in the relationship between supervisor unsupportiveness, job insecurity and the outcome on job performance (Shin et al., 2022), the interactive relationship between information hiding from leaders on employee feedback avoidance which in turns impacts their creativity and job performance (Akhtar et al., 2022), impact of green

human resource management and self-efficacy on green creativity (Farooq et al., 2022), the mediating role of self-efficacy in the relationship between anxiety and avoidance attachment (Kale, 2020), how CSR, GHRM and leadership interact to impact employee behaviors and task performance in Chinese hotels (He, Morrison, & Zhang, 2021), the mediating role of descriptive norms in the relationship between employee motivation and task performance (Pham et al., 2020), the impact of human resource management and leadership on employee wellbeing and task performance (He et al., 2019) etc. In addition, Paillé & Francoeur (2022) stress the need to investigate factors that lead to the accomplishment of necessary green tasks due to its scarcity in extant literature. Furthermore, Norton et al. (2015) stated that the existing ecological research has widely recorded the variables that motivate personnel to conduct discretionary environmental tasks, but it has widely overlooked the examination of determinants of obligatory green task performance.

From current literature, therefore, it can be reasoned that a significant percentage of studies have been limited to specific regions or countries, thereby creating a need to explore other regions or countries, as such research cannot be generalised. Furthermore, the existing literature is replete with the general investigation of task performance in relation to supervisor support. At the same time, few studies also investigate the role of descriptive norms, self-efficacy and creativity on task performance. As green human resource management is an emerging field, Yeşiltaş et al (2022) call for further research, expanding our understanding of the green culture of organisations. The interrelationship among variables like GSS, GSE, GDN GC on GTP needs to be investigated. This research is taking the lead by probing the extent of the

relationship among the variables. To the best of our knowledge, no study has interrogated this.

Furthermore, the majority of empirical research in this field has been undertaken in Western or industrialised environments, where institutional and structural support for green efforts is more established. In contrast, in developing countries such as Nigeria, the operational hurdles and resource limits that eco-friendly techniques face may be quite different. Thus, it is necessary to investigate how these linkages emerge in a non-Western, resource-constrained setting.

1.4 Purpose

This study seeks to address these gaps by investigating the moderated and sequential pathways linking green supervisor support to GTP through GSE and GC, while considering the contingent role of GDN. By focusing on eco-certified hotels in Nigeria, this research contributes to the ongoing discourse on environmental sustainability in the hospitality industry, offering fresh insights into the behavioural mechanisms and contextual factors that shape green workplace outcomes. Hence, this study examines the interrelationship between GSS and GTP; how GSE mediates between GSS and GTP; the mediating role of GC in the relationship between GSS and GTP; the interplay of impact among GSS, GSE, GC and GTP; the moderating role of GDN on the relationship between GSS and GSE; the relationship among GSS, GDN, GSE, GC and GTP. This research expands the existing literature by first introducing the notion of GSS to the literature, further exploring and expanding the construct. Then, this study investigates the missing antecedents of Green Task Performance in the literature. Thirdly, this work enhances our understanding of GDN, especially in light of its recent

introduction to the literature. Finally, this study investigates the linkages in our model in the context of a growing economy.

1.5 Research Objectives and Questions

1.5.1 Research Objectives

1. To examine the effect of GSS on employees' GTP in the hospitality sector.
2. To assess the sequential mediation mechanism linking GSS to GTP through GSE and GC.
3. To determine whether GDN moderate the relationship between GC and GTP.
4. To provide empirical evidence from eco-certified hotels in Nigeria, thereby extending the contextual relevance of green behaviour research to a developing economy setting.

1.5.2 Research Questions

1. What is the effect of GSS on employees' GTP?
2. To what extent does GSE mediate the relationship between GSS and GTP?
3. To what extent does GC mediate the relationship between GSS and GTP?
4. Does GSE and green creativity sequentially mediate the relationship between GSS and GTP?
5. Does GDN moderate the relationship between GC and GTP?

This chapter establishes the basic backdrop for this dissertation by outlining the background, problem statement, and core concepts that drive the research. The chapter also clearly states the aims and research questions. This study intends to provide relevant insights to the discussion of employee-driven sustainability by concentrating on the relationship between green supervisor support, green self-efficacy, green creativity, green descriptive norms, and green job performance in Nigeria's hotel

business. The next chapter will provide a detailed overview of the relevant literature, laying the theoretical and empirical groundwork for the study's conceptual framework.

Chapter 2

LITERATURE REVIEW

This chapter reviews the theoretical and empirical foundations upon which this research is anchored. It probes and reflects on how leadership support, employee psychology, social norms, and individual creativity influence green task performance (GTP), especially in the hospitality industry and in developing economies like Nigeria. The goal here is to bring together existing knowledge and theories that are related to the study while identifying gaps that support this research. The study is anchored on a multi-theoretical framework that is based on five interconnected theories: Organisational Support Theory (OST), Conservation of Resources Theory (COR), Social Cognitive Theory (SCT), Social Learning Theory (SLT), and the Theory of Individual Creative Action (TICA). Since no single theory fully explains the role of resources, motivations, learning, and social influence on green behaviours in the hospitality industry, a multi-theory approach is necessary. For instance, OST emphasises perceived support; COR theory focuses on personal and contextual resources; SCT and SLT, on the other hand, highlight self-efficacy and modeling; while Ford's TICA works with creating and implementing unique ideas in the workplace. Together, these theories provide important insights to the study.

Beyond this, the main focus of this chapter is to understand the interaction between green supervisor support (GSS), green self-efficacy (GSE), green creativity (GC), and green descriptive norms (GDN) in order to drive employees' Green Task Performance

(GTP) in hotel settings. Together, these theories inform the conceptual model of the overall research by eliciting the psychological, contextual, and normative factors that are responsible for employees' pro-environmental behaviour at work.

There are seven main sections in the chapter: Section 2.2 lays out the theoretical foundations of the study, explaining each theory's key assumptions and relevance to green behavior in hospitality; Section 2.3 defines the key concepts of the study, which includes GSS, GSE, GC, GDN and GTP while applying them in the Nigerian context; Section 2.4 provides empirical evidence that supports the proposed relationships between these concepts; Section 2.5 summarizes the literature by pointing out the gaps and justifying the study's contributions; Section 2.6 provides a summary of the chapter, leading into the conceptual framework and hypothesis development in 2.7. This chapter, therefore, establishes a theoretical and empirical foundation for studying green task performance in the Nigerian hospitality industry.

2.1 Theoretical Foundations

This section presents the five core theories that support the conceptual framework of the study. Each theory is selected for its relevance in explaining employee behaviour in organisational contexts, particularly relating to motivation, creativity, social influence, and performance in the hospitality industry.

2.1.1 Organisational Support Theory (OST)

According to Eisenberger et al. (1986), OST suggests that workers form general opinions about how much the company values their work and is concerned about their well-being. As a result, employee attitudes and actions, including dedication, output, and civic engagement, are impacted by this sense of support (Rhoades & Eisenberger, 2002). The reciprocity principle and social exchange theory serve as the foundation

for OST. Based on the level of support employees sense from their organisations, they can feel obligated to pay back by acting in ways that benefit the company when they realize how strongly it supports them (Cropanzano & Mitchell, 2005). The reciprocity principle is applied when workers feel that the company, frequently represented by managers or other representatives, truly values their work and cares about them (Quratulain et al, 2018). In essence, when employees receive kind treatment, they feel obliged to respond with positive work behaviours, such as increased dedication, improved performance, and decreased withdrawal (Basit, 2021; Zou, Tian & Liu, 2015).

One of OST's fundamental tenets is that workers view organisational behaviours as an indication of the company's dedication to them. Since supervisors are viewed as representing the organisation, supportive actions from leaders are very important. According to research, leaders' support, fair treatment, and good HR procedures are significant determinants of perceived organisational support (POS) (Shanock et al, 2019; Eisenberger et al., 2020). Employees come to believe that the company appreciates and cares about them when managers help them, recognise their efforts, or show concern for their needs. As a result, they are inspired to put in more effort and behave like good citizens in order to return that imagined favour. According to Rhoades & Eisenberger (2001; 2002), POS is substantially correlated with outcomes like increased performance and dedication and is influenced in part by supervisor support.

In relation to green activities, OST posits that employees will devote more effort to sustainability tasks if they believe their organisation and supervisors sincerely support environmental efforts. This theory is supported by evidence in current literature.

Existing studies indicate that workers are likely to perform well and take voluntary actions to support the company when they feel their environmental conteibutions are respected and acknowledged (Boiral, 2009; Afsar & Umrani, 2020; Collier & Esteban, 2007). Consequently, when employees are motivated to exert additional effort in fulfilling green responsibilities when they feel supported regarding environmental issues. Therefore, a supervisor's promotion of eco-friendly actions termed "Green Supervisor Support" (GSS) will cultivate a social exchange dynamic that incentivises employees to improve their performance on green tasks such as participating in sustainability initiatives or following conservation protocols (Norton et al, 2015; Gkorezis, 2015; Temminck et al., 2015). OST provides the theoretical basis for this: employees reciprocate green support with enhanced green performance, motivated by gratitude and a sense of obligation to assist the organisation in reaching its environmental objectives (Pham et al, 2020; Dangelico (2015); Bangwal & Tiwari, 2015; Arulrajah et al., 2015). Within the framework of reciprocity, this theory underscores the importance of leadership support in this study by linking supportive leadership to employee green behavior and performance.

OST elucidates the reasons behind employees' voluntary pro-environmental behaviours in sustainability contexts (Raza et al., 2021). When organisations support environmental values by recognising green initiatives, allocating resources accordingly, and or promoting eco-friendly practices, it demonstrates that sustainability is a collective priority. With this support, employees can be motivated to pursue this vision through their own green actions with this support (Kim et al., 2017). Supervisor-level support, a close form of organisational support, is crucial for turning top-level sustainability commitments into daily employee actions (Paillé &

Raineri, 2015). OST is relevant to this study in two ways: first, it provides an understanding of how GSS affects employee behaviour. Second, it suggests that employees are likely to show higher green task performance when they feel this support.

2.1.2 Conservation of Resources Theory (COR)

Propounded by Hobfoll (1989; 2001), COR opines that individual seek to acquire, hold onto, and safeguard valuable resources. COR provides a valuable outlook on motivation and stress that is pertinent to workers' adoption of environmentally friendly work practices. Anything valuable or helpful in accomplishing objectives can be considered a resource, including objects, situational circumstances, personality traits, and energies (Hobfoll, 1989; Hobfoll & Freedy, 2017).

Hobfoll identified three conditions that create stress (Hobfoll et al, 2016). These include: a threat of resource loss, an actual net loss of resources, or inadequate resource gain after investing resources (Hobfoll & Freedy, 2017). Consequently, people feel driven to avoid resource losses and to accumulate extra resources as a safeguard against future challenges (Hobfoll et al, 2018). Two core principles are outlined in COR theory (Chen et al, 2015). First, the consequences of losing resources are far more severe and detrimental than those of gaining an equivalent amount of resources (Hobfoll et al, 2016). Simply put, the impact of losing support or energy is more significant on people than the impact they get when they gain it. Resource investment, which is the second principle, asserts that people must invest resources in order to prevent loss, recoup from losses, or get new resources (Hobfoll et al, 2016). An employee might, for example, invest time and resources in training to acquire new abilities, giving them the ability to handle work demands stress-free. These ideas

underpin COR's assertion that those with greater resources are less vulnerable to losses and can more readily acquire new resources. On the other hand, cycles of loss are more likely to occur for individuals with fewer resources. This results in “resource caravans,” or gain spirals, for some, while others experience “loss spirals,” (Holmgreen, et al, 2017)

When applied to the workplace, especially regarding environmental behaviour, COR theory emphasises the significance of support and personal capacities as resources (Hobfoll & Freedy, 2017; Chen et al., 2015). A supervisor’s backing for green initiatives can be viewed as an organisational resource extended to the employee (Karatepe et al., 2022). This support can include tangible assistance, like budget and training, or intangible help, such as encouragement and setting priorities, which facilitate employees in performing green tasks (Aboramadan & Karatepe, 2021). Similarly, an employee's self-efficacy, or confidence in handling environmental tasks, is a crucial personal resource (Albrecht & Marty, 2020). It is anticipated that employees who possess greater resources, such as support, confidence, and knowledge, will be more inclined and able to invest their effort into supplementary projects, including innovative sustainability initiatives, as they perceive themselves capable of doing so without jeopardizing their well-being (Shahid, 2018). On the other hand, employees who do not receive support or assurance may perceive additional eco-friendly actions as overly burdensome, considering it a potential drain on resources like time or energy without adequate benefit (Lamm et al, 2015).

Therefore, COR theory helps clarify why GSS and GSE are essential for green task performance (Mughal et al, 2024). GSS provides employees with external resources (such as guidance, tools, and moral support and so on) which help alleviate the stress

of undertaking environmental tasks and lower their perceived cost of adopting green behaviours (Uddin et al., 2020). At the same time, GSS can help strengthen employees' internal resources by boosting morale and skills, for example, through green training opportunities (Zhi et al., 2020). An employee with high GSE, or belief in their ability to achieve environmental goals, possesses psychological resources like optimism, confidence, and courage (Moeller & Stahlmann, 2019). Such an employee is less likely to feel threatened by demanding eco-tasks and views challenges as chances to invest effort and achieve more. Indeed, employees with ample psychological resources believe they can tackle tough tasks and actively seek out more resources and chances, like volunteering for green projects, to build resource surpluses. As such, COR theory indicates that well-supported and self-assured employees are more likely to engage in and persist with green behaviours because they can do so without unnecessary stress and with confidence in net gains, such as personal satisfaction, recognition, or tangible rewards (Nguyen et al., 2025). For this research, COR serves as a basis for the hypothesis that employees with more support and self-efficacy will show higher green task performance. Conversely, if these resources are missing, employees might shy away from extra green initiatives out of fear of overextending themselves or failing, which would signify resource loss (Westman et al., 2004).

These resources include material assets, personal traits, energy, time, and social support (Sonnentag & Meier, 2024). COR suggests that individuals are driven to avoid resource loss, invest resources to gain more resources, and engage in behaviours that help them conserve or improve their resource pool. In the workplace, COR has been widely used to explain stress, burnout, and motivation. In green management literature,

the theory provides a way to understand how the availability or scarcity of resources affects employees' willingness to participate in green behaviour. Employees may view environmental tasks as draining unless the organisation offers compensatory resources, such as time, training, or recognition (Jeong & Jang, 2024). When Green Supervisor Support supplies these resources, it lessens the perceived burden of adopting sustainability practices and increases willingness to get involved (Bakker et al., 2023). COR also emphasises the role of GSE as a psychological resource (Sanecka, Stasiła-Sieradzka & Turksa, 2023). According to Zeng et al. (2021), employees who possess a strong sense of self-efficacy have greater confidence in their capacity for green behaviour and are less prone to resource depletion from task demands. Hence, COR theory provides the study leverage to understand leadership and the internal psychological conditions that facilitate green behaviour

2.1.3 Social Cognitive Theory (SCT)

SCT was introduced by Bandura in 1986 and 2001, and explains human behaviour through the interaction of behavioural, environmental, and personal factors. SCT stresses the importance of observing others, imitating their actions, and having self-confidence for behaviour change (Bandura, 2001). In the realm of environmentalism, SCT suggests that people are more likely to engage in pro-environmental behaviours when they see peers or superiors modelling these actions (He, 2024). Central to social cognitive theory, the idea of self-efficacy is vital in shaping people's convictions regarding their capacity to effectively partake in environmentally sustainable behaviours (Tabernero & Hernández, 2011; Tabernero et al., 2015). Thus, SCT provides a basis to examine the impact of perceived skills and social modelling on the adoption and implementation of green initiatives within the hospitality industry.

Observational learning, reinforcement, and self-efficacy are key concepts in SCT (Rafiola & Ramlib, 2018). Among these factors, self-efficacy, defined as a person's belief in their ability to perform a task, is especially important for understanding how people begin, sustain, and control behaviours aimed at achieving their goals (Bandura, 2023). SCT asserts that people are more likely to adopt behaviors they observe in respected models, particularly when those behaviors receive positive reinforcement. In a workplace setting, leaders and supervisors act as vital role models. When they visibly practice green behaviors or show enthusiasm for sustainability, employees are likely to follow their lead (Kim et al., 2017).

GSE is significantly influenced by SCT (Pakpour, 2021). High GSE workers typically think they can complete jobs in an ecologically friendly manner, overcome obstacles, and recover from setbacks (Farooq, 2022). SCT also explains how support from green supervisors can boost GSE by modelling behaviour, offering encouragement, and creating opportunities for mastery experiences (Bandura, 2001). The notion that people are agents who actively control their conduct rather than being merely impacted by internal or external factors is central to SCT. Setting goals, making plans, self-regulation, and reflecting are some of the essential characteristics that Bandura (2001) uses to characterise human agency. People establish goals, create plans, monitor their progress, and adjust their actions based on reflection and feedback. Notably, SCT's concept of triadic reciprocal determinism holds that personal factors, behaviour, and environmental aspects all influence one another in a two-way manner (Bandura, 2023). Bandura's theory places self-efficacy at the heart of motivation and behaviour regulation (Bandura, 2023). It suggests that people's motivation levels, emotional states, and actions depend more on their belief in their abilities than on the actual truth

of their skills or the resources they have (Cook & Artino, 2016). Self-efficacy influences a wide range of factors, including mental states, actions, and motivation (Warner & Schwarzer, 2017).

For example, workers who are confident in their ability to accomplish a task tend to establish loftier objectives, take more initiative, persevere through challenges for extended periods of time, and bounce back from difficulties more readily. Conversely, individuals who possess low self-efficacy might shy away from difficult tasks, surrender quickly, or experience anxiety, all of which can negatively impact their performance (Ribeiro et al., 2023). Research has demonstrated a positive connection between green self-efficacy and eco-friendly behaviours among employees (Miah et al., 2024). Huang (2016), for example, discovered that employees that are more likely to participate in conservation and waste reduction initiatives at work are those who perceive themselves as capable of influencing their environment. Workers with elevated GSE tend to tackle environmental tasks with a problem-solving mindset and resilience, perceiving difficulties as challenges to conquer rather than threats (Cadete & Ruggunan, 2024).

2.1.4 Social Learning Theory (SLT)

Developed by Bandura in 1977, SLT emphasises learning through observation and imitation. SCT addresses wider cognitive processes, but SLT focuses on how individuals acquire behaviours through observation of others (Whitham et al., 2013). According to SLT, individuals learn not only from their own direct experiences but also by watching the actions and consequences of others (Bandura, 1985). In workplace sustainability, SLT supports the idea of GDN, which refers to the shared understanding of typical behaviours in a setting. When employees see their colleagues

recycling, conserving energy, or minimising waste, these behaviours become the expected norm (Norton et al., 2015). Therefore, SLT helps to understand how peer behaviour affects individual environmental actions. SLT is crucial in hospitality settings, where interaction and teamwork are fundamental (Xiao & Mao, 2022). The visibility of peers' actions highlights norms and strengthens sustainable practices.

SLT, as Bandura defined it, offers a behavioural view that centres on learning through observation and modelling (Bandura, 1985). SLT originated from Bandura's well-known Bobo doll experiments, which showed that people (or children in Bandura's studies) can learn behaviours by watching others, even without any direct rewards (Bandura, 2014). In those experiments, children who witnessed an adult acting aggressively towards an inflatable clown doll later mimicked that aggressive behaviour, even without any incentives. This demonstrated that learning can happen vicariously. As such, people can pick up new behaviours by watching the actions of others and their consequences. Bandura and other researchers identified several steps in observational learning: paying attention to the model, remembering the behaviour, being able to reproduce it, and having the motivation to do so. Motivation may stem from seeing the model rewarded or from personal values (Bandura, 2014).

A key idea in SLT is that people actively process information and consider how their actions relate to outcomes (Jago & Radford, 2017). They use observations of others to guide their behaviour. Unlike strictly behaviourist theories, SLT recognises that external reinforcement isn't the only factor in learning; expectations and thoughts also matter (Bredo, 1997). Bandura noted that "learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do." Most human behaviour is learned through observation. As

such, by watching someone perform an action, people develop an understanding of how to perform, which then guides their actions (Bandura, 2004).

In the workplace, social learning is constantly occurring (Bingham & Conner, 2010). New employees learn the unwritten rules by observing their colleagues (Rauch & Ansari, 2025). If a supervisor consistently recycles and commends those who do the same, employees take notice and imitate those behaviours (Afridi et al., 2023). Two types of social cues are especially important: the behaviours of leaders and the behaviours of peers (Usman et al., 2024). Both create examples of what is expected. Leaders often serve as role models. Through identification and imitation, employees may adopt the environmental behaviours that their supervisors demonstrate. Peers help establish what is considered "normal" within the group, and individuals often conform to this to fit in or because they believe the behaviour is suitable (Laursen & Faur, 2022).

2.1.5 Theory of Individual Creative Action (TICA)

TICA, which was propounded by Ford (1996) provides a framework for understanding creativity as a behaviour influenced by motivation, cognitive ability, and social context. Ivcevic (2009) thought that TICA suggests creativity is not just a personality trait; it is a dynamic action shaped by the work environment and individual beliefs about what is expected and possible. In environmentally focused contexts, TICA explains how GC develops when employees feel empowered, capable, and supported (Liu et al., 2024). GSS can improve employees' motivation and psychological safety, helping them generate new ideas. GSE also boosts creative output by increasing confidence in the ability to face environmental challenges in innovative ways. When

the organisational climate promotes creative exploration, employees are more likely to go beyond compliance and suggest innovative sustainability solutions.

TICA supports the proposed link between GSE and GC, along with the sequential mediation from GSS to GTP through these factors. It highlights that creative environmental behaviour is influenced by social factors and driven by individual initiative. While previous theories focus on support, resources, and learning (Unsworth & Clegg, 2010), Ford's TICA framework helps explain how creativity emerges in the workplace. Ford combines psychological and social perspectives to clarify how individuals choose to engage in creative actions developing new ideas or behaviours instead of sticking to routine tasks. In a typical work environment, employees are forced to decide whether to continue with familiar routines or try a new, untested approach (Feldman & Pentland, 2003). Ford argued that these choices are shaped by various aspects of social context, such as the immediate work group, the organization, and broader professional norms, as well as by the individual's internal cognitive and motivational state.

According to TICA, the journey to creative action starts with how an individual interprets a specific problem or opportunity (Franieck, 2022). Sensemaking is the first step, where a person collects information and builds an understanding of the situation. For example, an employee may notice an increase in waste in the hotel kitchen. They can view it as just "how things are" which may lead to no action or as "a problem that can be resolved" which may open the door for creative action. This interpretive process is influenced by social factors; if the organisational culture values sustainability, the employee is more likely to see the waste as an issue that requires a creative solution.

Next comes the motivation to act creatively. Ford argues that individuals must be motivated enough to step away from routine and commit to a new approach. Creative action inherently involves uncertainty and risk of failure, so individuals weigh various factors before deciding to pursue it (Franieck, 2022). Important motivators include personal goals (does the person have a goal that innovation will help achieve?), perceived rewards or outcomes (will solving this problem lead to recognition, satisfaction, or other benefits?), and, crucially, confidence in one's abilities. Ford emphasises that creative action competes with habitual action, and motivation to be creative relies on believing in one's ability to succeed, expecting positive results, and valuing those outcomes. If an employee doubts their skills or expects no reward or even punishment for trying something new, they will likely stick to the safer habitual behaviour (Podsakoff et al., 2010). Conversely, if they have strong self-belief and see a meaningful payoff, they are more likely to choose the creative approach.

Furthermore, whether creative action actually happens also depends on the individual's knowledge and skills. Even a highly motivated employee cannot produce effective, creative ideas without the necessary domain knowledge or creative-thinking skills (Podsakoff et al., 2010). Ford highlights factors like domain expertise, which denotes knowledge about the task area, technical skills, creative thinking ability eg, the ability to think divergently or make novel connections, and even social skills, which are needed to gain support or communicate the idea as important for turning creative intent into real outcomes. In essence, creative performance equals motivation multiplied by ability, given the right contextual conditions.

TICA is particularly applicable to the study's concept of GC (Arici & Uysal, 2022). It suggests that employees will only create and implement new eco-ideas if several conditions are met: they see an environmental issue as needing a new solution, they feel motivated to address it creatively, and they have the confidence and knowledge to do so. Notably, Ford's model highlights self-efficacy as a key factor in creative motivation. This aligns with other research indicating that creative self-efficacy predicts creative output because people who believe in their creative skills are more likely to produce creative work (Tierney & Farmer, 2011).

2.1.6 Theoretical Integration

While each theory provides distinct insights, they come together with a common aim to explain how employees are motivated and encouraged to engage in voluntary green behavior. OST and COR focus on the supportive and resource-based aspects of GSS. SCT and SLT describe how modelling, norms, and self-efficacy shape behavior. TICA highlights the creative application of these processes in environmental settings. Integrating these theories provides a more comprehensive understanding of green task performance by considering support systems (OST), psychological readiness (COR, SCT), normative influences (SLT), and creative action (TICA). This integration bolsters the proposed model linking GSS, GSE, GC, GDN, and GTP in a sequential and interactive framework, particularly pertinent for hospitality organisations with limited resources.

Each theory illuminates a distinct facet of employees' green task performance. This section integrates these viewpoints to demonstrate their collective contribution to the conceptual framework. The study's main concepts (GSS, GSE, GC, GDN, and GTP) are interrelated and derive from OST, COR, SCT/SLT, and TICA. It is proposed that

GSS enhances GTP in both direct and indirect ways by sequentially increasing employees' GSE and GC. This process is determined by the extent of green descriptive norms present in the workplace . OST provides a basis for anticipating a direct connection between GSS and GTP (Luu, 2020). Employees who feel strong environmental support from their supervisor feel compelled to reciprocate with positive contributions (Luu,2020). According to Social exchange theory, they "pay back" the care and resources by putting in more effort on sustainability tasks, resulting in higher green task performance (Nazir et al., 2018). Moreover, support from a leader often indicates that the organisation prioritises the environment overall, which can strengthen employees' commitment to meet those expectations. Consequently, OST explains the direct impact of GSS on GTP and sets the stage for indirect effects by fostering a positive psychosocial climate.

SCT adds that a supportive leader can improve an employee's self-efficacy through encouragement, guidance, and modelling, which in turn enhances performance (McCormick, 2001). GSS can offer mastery opportunities. For example, assigning manageable green tasks and praising successes along with verbal persuasion can boost an employee's belief in their green abilities (Haque et al, 2024). SCT posits that when self-efficacy is high, an employee's motivation and persistence on related tasks will rise, leading to better performance outcomes (McCormick, 2001). Conservation of Resources theory suggests that GSS and GSE are resources that strengthen each other: support enhances personal resources like confidence and skills, and those with higher self-efficacy are more inclined to invest effort in green initiatives, expecting success rather than failure. Together, SCT and COR predict that GSE mediates the effect of

supervisor support on performance. Supported employees perform better partly because they feel more capable and empowered to succeed (Haque et al, 2024).

TICA indicates that a supportive context encourages employees to engage in creative problem-solving. GSS plays a crucial role in motivating creativity by reinforcing employees' personal sustainability goals, enhancing expected rewards through recognition or encouragement for new ideas, and boosting confidence. Additionally, research on leadership shows that leaders who show commitment to the environment stimulate creative thinking among employees on green issues (Begum et al, 2022). For instance, Chen and Chang (2013) found that leadership attitudes toward the environment impact employees' green creative thinking. Similarly, studies on green transformational leadership document that supportive and inspiring leaders encourage employees to develop innovative eco-friendly ideas and behaviours. Therefore, GSS is expected to increase employees' engagement in Green Creativity, such as proposing new conservation methods or innovative eco-service offerings. Creativity is linked to performance improvements (Ding et al., 2014). Creative ideas can lead to more efficient processes and cost savings, e.g a recycling program that reduces waste disposal costs and can enhance a hotel's environmental performance metrics. Evidence shows that green creativity positively impacts outcomes such as product development performance. By generating useful, original solutions, employees not only contribute beyond their routine duties but also often find ways to perform tasks better from an environmental perspective (Ding et al., 2014). The study proposes an indirect connection: GSS leads to GC, which in turn leads to GTP. This aligns with broader creativity theory (Amabile, 1988), which contends that a supportive environment fosters creativity, and creativity drives innovation and effectiveness. In a study by

Tuna et al (2022), they opined that research in hospitality has indicated that management commitment to the environment boosts green creativity among hotel employees, which then translates into better pro-environmental work outcomes.

The most unique aspect of the conceptual integration in the study is connecting the two mediators in sequence: GSS leads to GSE, which leads to GC, and finally results in GTP. This sequence is theoretically justified by TICA and SCT together. First, support from a supervisor builds an employee's efficacy (SCT: "I can do this"), which in turn increases their willingness to engage in creative action (TICA: confidence is essential for creativity). An employee with high self-efficacy is more likely to take the risk of trying a new approach because they believe in their abilities (Heslin et al, 2016). Once the employee generates a creative solution, effectively implementing it improves their task performance. Essentially, self-efficacy leads to creativity, and creativity leads to better performance (Tuna et al, 2022).

The concept of GDN represents the prevailing level of co-worker engagement in green behaviours (Paillé et al., 2016). It is expected that this normative environment will shape the impact of green creativity on performance. In a setting where green descriptive norms are strong (where many colleagues routinely engage in eco-friendly actions), an individual's creative green ideas are more likely to receive support and acceptance, resulting in tangible performance benefits. This aligns with SLT when those around you model pro-environmental behaviour, a novel green idea doesn't seem strange. Rather, it seems appropriate and even expected, leading others to adopt or support it willingly. Strong norms also signal to individuals that their extra efforts are valued by the group, encouraging thorough implementation (Biel & Thøgersen, 2007). In contrast, in a workplace with weak green norms where few people care about or act

on environmental issues, an employee's creative eco-initiative might face indifference or pushback (Small, 2020). The idea may stall without peer support, or the employee might feel less motivated to promote it, resulting in a diminished impact on actual performance. Thus, the study theorises those green descriptive norms will moderate the link between green creativity and GTP, making the connection stronger in environments with high norms. While this specific moderation hasn't been empirically tested before, general findings suggest that social context influences individual initiative. For instance, research on innovation implementation indicates that even great ideas require a supportive climate to be fully realized. If pro-environmental behaviours aren't normative, an employee faces little social cost for not engaging in green actions (Kollmuss & Agyeman, 2002). This may cause creative efforts to fall short. Conversely, when a strong norm exists that everyone "should" be green, failing to utilize a creative idea to enhance environmental performance could be viewed as a missed opportunity by peers, leading to further pressure to adopt the idea. It can be noted that green descriptive norms could affect earlier parts of the model. For example, they could strengthen the impact of support on efficacy by consistently signalling that "people like me can do this". The multi-theory integration can be visualised as follows GSS (rooted in OST) provides social exchange value and resources (COR) that enhance GSE (SCT's belief in capability). Higher GSE stimulates GC (according to TICA, confident, motivated employees choose creative action over routine tasks). GC then leads to improved GTP since creative, useful innovations enhance efficiency and effectiveness. Furthermore, GDN (from SLT/norms) shapes the social context that can amplify the conversion of creativity into performance. By merging these perspectives, the conceptual framework gains explanatory depth: it views employees as resourceful, cognitively driven individuals through SCT and TICA who respond to supportive

exchanges (OST), navigate resource limitations (COR), and are influenced by their social environment (SLT). This integrated approach effectively captures the complexity of green task performance, which is not simply a product of individual attitudes or external pressures but rather the result of multilayered interactions among leadership, individual psychology, creativity, and group norms.

2.2 Conceptualisation of Key Constructs

2.2.1 Green Supervisor Support (GSS)

The term Green Supervisor Support denotes the extent to which direct supervisors promote, exemplify, and aid environmentally responsible actions among staff (Kim et al., 2016). GSS is different from general supervisory support in the sense that it is aimed directly at environmental objectives, including energy conservation, waste reduction, and sustainable service delivery. Support can be presented in the form of verbal encouragement, provision of resources, role modelling, or acknowledgement of environmentally friendly efforts (Paillé & Raineri, 2015). There are two mechanisms through which GSS affects behaviour. ***First, based on Organisational Support Theory (OST), employees view GSS as a demonstration of the organisation's dedication to sustainability, which increases their sense of duty to respond with pro-environmental actions (Eisenberger et al., 1986). Secondly, GSS can influence employees' self-efficacy by establishing a supportive environment that anticipates and endorses green behaviours. According to Wang et al. (2020), supervisors who demonstrate and incentivise sustainable practices in public settings establish social norms and clarify environmental expectations.

In the hospitality industry and related fields, empirical research has verified that support from supervisors positively influences employees' environmentally friendly

actions. For example, research by Kim et al. (2017) indicated that hotel employees' green organisational citizenship behaviour was significantly predicted by their perception of supervisor support. Nonetheless, the current literature infrequently separates GSS from larger constructs such as green transformational leadership or organisational environmental climate (Hameed et al, 2022), leading to uncertainty about its distinct contribution.

It helps to compare with Green Organisational Support (GOS) to draw comparisons and contrast (Hameed et al., 2022). While GOS usually refers to how employees view the company's commitment to the environment through policies, culture, and support from top management, GSS focuses on support from immediate supervisors, whom employees interact with every day. Supervisors act for the organisation, so GSS can affect how employees see GOS, but they are not the same (Niazi et al, 2023). A company might have strong green policies, but if a frontline supervisor is indifferent or unhelpful, employees might still feel low GSS. Research shows that employees see a difference between these sources. One study found that while GOS positively influences employee outcomes, workers also appreciate supervisory actions that promote a greener workplace. Paillé et al. (2020) explained that making the workplace greener through supervisory actions includes managers showing environmental concern and offering practical help for employees' eco-friendly initiatives. Essentially, GSS provides the "human touch" of environmental support within organizations. It comes through one-on-one interactions, feedback, and the practices of leaders at the unit level.

How GSS influences can be understood through the theories already discussed earlier. From the perspective of OST, GSS meets socio-emotional needs and shows that the

organization, through the supervisor, values employees' environmental efforts (Gunay, 2025). This often leads to a sense of obligation and commitment, motivating employees to engage in more pro-environmental actions. Scholars agree that supervisor support is key in encouraging employee green behaviour (Paillé et al. 2022). For instance, if a hotel manager consistently backs staff efforts with recycling or energy-saving measures, employees get a clear message that their work is appreciated and expected. This motivates them to put in extra effort. From an SLT perspective, supervisors who actively support GSS often demonstrate the desired behaviours, such as being mindful of waste or correcting unsustainable practices, and guide their teams (Winkler, 2023). Employees learn and mimic these actions. Supportive supervisors also provide a safe environment for employees to experiment (Haas,2020). They tend to be more understanding of mistakes made while trying to improve green practices, which can encourage innovation and proactive behaviour.

2.2.2 Green Self-Efficacy (GSE)

GSE is defined as an employee's belief in their capacity to execute behaviours that contribute to environmental sustainability in the workplace (Chaudhary, 2020). It builds on Bandura's (2001) SCT, which emphasises self-efficacy as a critical determinant of behavioural intention and action. All the general properties of self-efficacy apply. It is specific to tasks, can be strengthened or weakened by experiences, and strongly predicts whether people start activities, how much effort they put in, and how they persist. What sets GSE apart is the content area; it focuses on the actions needed to meet environmental goals. For example, a statement that measures green self-efficacy might be, "I am confident I can help my organisation reduce its carbon footprint." This is somewhat different from having an attitude or knowledge. It's not

just about caring for the environment or knowing what to do; it's about believing in one's ability to make it happen.

According to Chen et al. (2015), who studied psychological factors in green behaviour, "green self-efficacy…refers to individuals' evaluation of their ability to perform different activities to achieve green goals." Individuals with high GSE "believe they have the ability and confidence to accomplish specific green tasks." This confidence leads to action. Previous studies show that green self-efficacy is linked to various pro-environmental behaviours (Lauren et al., 2016). For instance, employees who feel capable of green actions tend to recycle more, save energy at work, and participate in other eco-friendly behaviours (Huang, 2016). GSE also connects with proactive environmental engagement; those who believe they can make a difference are more likely to share ideas or volunteer for sustainability projects (Strzelecka et al., 2018).

Conceptually, GSE is influenced by factors similar to those affecting general self-efficacy (Sh. Ahmad et al., 2022). Successfully leading an environmental initiative increases GSE, while failures might decrease it. Observing a colleague succeed in a green project can boost one's own GSE, especially if the colleague has similar skills; "if they can do it, I can too." Encouragement from others, especially supervisors, can enhance GSE by persuading employees that their efforts will succeed. Emotions also play a role. For instance, feeling excited about nature or getting support from the team can strengthen one's confidence to take action.

GSE is also conceptualised as a psychological resource within the COR (Mughal et al., 2024), enhancing motivation and resilience in the face of environmental task demands (Hobfoll, 2001). Here, GSE serves as a personal resource that reflects confidence and positive expectations (Chen et al., 2015). Employees with higher GSE

usually have plenty of psychological resources, such as positive thoughts, confidence, and courage (Bantha & Sahni, 2021). This makes them more resilient and willing to take on challenging tasks. High-GSE employees tend to see environmental tasks as challenges to overcome rather than burdens. As a result, they are less discouraged by difficulties (Bantha & Sahni, 2021). COR theory suggests they are more willing to invest energy in green initiatives because they expect positive outcomes, like reinforcing their confidence or gaining recognition, not losses (Halbesleben, 2014).

Research linking GSE to outcomes is expanding. Liu and Li (2020) found that employees with high green self-efficacy engage more in green behavior and tend to utilize organizational resources more effectively. They make full use of available internal and external resources to participate actively in green activities. This points to a synergistic effect: high GSE employees enhance the impact of other supports, such as green HRM practices, because they seize those opportunities, while low GSE employees may not act on them (Chen et al., 2015). GSE is also closely related to employee initiative and innovation in environmental efforts. Employees who trust their green skills are more likely to develop creative solutions (Cegarra-Navarro et al., 2025). They feel empowered in their own minds, which is essential for voluntary, extra-role behaviors. In the hospitality context, where sustainability may require employees to face new challenges, such as managing waste sorting with guests or adjusting operations to save water during shortages, GSE becomes a vital driver.

2.2.3 Green Creativity (GC)

GC refers to the generation of novel and useful ideas concerning green products, services, practices, or processes (Chen & Chang, 2013). GC is particularly important in dynamic and customer-facing sectors like hospitality, where creativity can enable

customised, sustainable solutions without compromising service quality. GC involves not just innovation in environmental technologies but also behavioural and procedural changes initiated by employees (Song & Yu, 2018). Theoretically, in this study, GC draws from TICA, which posits that creativity emerges when individuals are motivated, believe in their capacity to innovate, and operate within supportive social contexts (Ford, 1996). GSS contributes to GC by creating an environment of psychological safety and encouragement for experimentation (Tu et al., 2019). Likewise, GSE enhances employees' confidence in proposing and implementing green solutions.

Empirical studies support these links. For example, Chen and Chang (2013) found that GC mediates the relationship between green transformational leadership and green product innovation. Yusliza et al. (2020) observed a strong link between environmental-specific self-efficacy and GC in a sample of Malaysian service workers. Green creativity is a specific part of workplace creativity that connects closely to employee eco-innovation and sustainable innovation (Arici & Uysal, 2022). The key difference is that the creative results focus on improving the environment (Chen & Chang, 2013). This might include small ideas, like a sign that encourages guests to save water, or more significant changes, like redesigning an entire service process to reduce carbon emissions. A key feature of green creativity is that it often needs interdisciplinary thinking (Song & Yu, 2018). This involves combining knowledge from one's job with environmental science or sustainable practices (Song & Yu, 2018). It also often includes cost-effective innovation, which means finding solutions that are eco-friendly while also saving time and money. Organizations will

assess the value of green ideas partly based on their practicality and effect on operations (Song & Yu, 2018).

In the research, GC has been measured for both individuals and teams. The study focuses on individual employee green creativity, which is how much an employee generates creative ideas to improve environmental outcomes in their work. Jiang et al. (2021) created a scale for employee green creativity and described it as a capability that brings together green creative motivation, thinking, behavior, and outcome. This suggests that GC involves not just coming up with ideas but also putting them into action. However, some definitions separate creativity, which is idea generation, from innovation, which is putting those ideas into practice (Song & Yu, 2018). Creativity in the workplace flourishes in environments that encourage taking risks and provide necessary resources (Clements-Croome, 2015). In a green setting, a supportive supervisor who promotes creative solutions to reduce waste without punishing failures creates an environment where employees feel safe suggesting new ideas (Saeed et al., 2019). This aligns with Ford's TICA; supportive leadership and shared goals boost the motivation for creative actions. Evidence is starting to appear to support this in environmental contexts. In hospitality, Mittal & Dhar (2016) studied Indian hotels and found that green transformational leadership led to higher employee green creativity, largely by fostering an environmentally friendly culture. They noted that transformational leaders encourage employees to care about using resources like water and paper more efficiently, essentially promoting creative ways to save. Thus, leadership and support clearly have an important role.

GSE is another factor. Employees who feel capable are more likely to engage in creative problem-solving. Research shows that creative self-efficacy predicts overall

creativity (Tierney & Farmer, 2002). An employee who believes "I can make a difference environmentally" (high GSE) is more inclined to try new approaches. In contrast, someone who feels ineffective may not bother to find improvements. GSE gives employees the confidence to break away from standard methods and explore new solutions.

2.2.4 Green Descriptive Norms (GDN)

GDN refer to perceptions of the commonality of environmentally friendly behaviour among peers in the workplace (Cialdini et al., 1991). GDN functions as an informal social rule derived from observing others. When sustainable behaviours are visible and widespread, they are perceived as the expected norm, increasing the likelihood of adoption by others (Nogueira et al., 2023). GDN are rooted in SLT, which posits that individuals learn behaviour through observation, especially of those who are similar or respected (Bandura, 1977). In hospitality settings, where teamwork and visibility of actions are high, descriptive norms have a strong influence on behaviour. For example, employees are more likely to recycle, conserve energy, or avoid waste when these actions are consistently modelled by peers. In other words, GDN reflects how an employee views the actions of their peers regarding environmentally friendly behavior at work. It answers the question, "What do people like me usually do about sustainability here?" If most employees regularly recycle, save energy, and engage in other green practices, the descriptive norm is a strong green norm. If only a few people participate in those actions while most do not, the descriptive norm is weak (Atkinson & Kim, 2015).

This idea comes from social norms theory, which distinguishes between descriptive norms (what is done) and injunctive norms (what is approved). Descriptive norms

motivate people by showing them what behaviors are likely effective or suitable in a situation (Gelfand & Harrington, 2015). Humans often unconsciously conform to what most people do. This behavior provides a guide for acceptable actions and fosters a sense of social acceptance (Gelfand & Harrington, 2015). In the environmental context, for instance, hotel guests are more likely to reuse towels when a sign states, "the majority of guests in this hotel reuse their towels," which conveys a classic descriptive norm message. Within organizations, perceived coworker norms can similarly affect employee behavior (Chiaburu & Harrison, 2008). For instance, if an employee sees all their teammates shutting down their computers at night, carpooling, or following waste sorting rules, they are likely to adopt those behaviors to fit in with the group. Conversely, if the norm is to ignore those practices, the employee may feel that doing them is pointless or socially strange (Ashforth & Fried, 1988).

Empirical research supports this. Norton et al. (2015) showed that visible peer engagement in sustainability activities increased the likelihood of individual participation. Wesselink et al. (2017) similarly found that employees were influenced by green behaviours displayed by their colleagues. However, the moderating role of GDN on the relationship between GC and GTP remains underexplored, particularly in collectivist cultures where normative pressure may be more pronounced. GDN also connects to Social Identity Theory, which predicts that employees want to belong and be viewed positively by their group (Ellemers et al., 2013). If being "green" is part of the group's identity, individuals will adopt that standard to confirm their membership. For example, they might ask, "In my department, most people turn off their equipment when not in use" or "Almost everyone here cares about reducing waste." These

perceptions might not always reflect reality, but perception is what really matters in terms of influence.

Research on green descriptive norms in organizations is still developing, but related ideas have been explored. For example, Norton et al. (2015) provided a review of employee green behavior, showing that group factors like a positive environmental climate or shared norms greatly influence individual green actions. They noted that employees work within teams, and if a team has a pro-environmental norm, its members report greater involvement in green behaviors. Dumont, Shen, and Deng (2017) conducted another study showing that the green climate in a department, which includes shared norms and perceptions, affected how green HR practices influenced individual behavior. This suggests that what coworkers do together shapes the environment for individual actions.

Green descriptive norms can also be shaped by management, but they don't come solely from the top. They grow from collective behavior. Management can promote norms through training or by appointing green champions, but ultimately, it's the visible actions of peers that establish the norm. Robertson & Barling (2013) found that leaders' personal green behaviors predicted employees' environmental actions. This influence partly came from shaping what employees considered normal and expected.

2.2.5 Green Task Performance (GTP)

Green Task Performance (GTP) refers to the degree to which employees fulfill job responsibilities in ways that directly contribute to an organization's environmental objectives (Renwick et al., 2013). It encompasses both in-role green behaviors, such as adhering to eco-efficient operational protocols (e.g., reducing waste, conserving energy), and extra-role behaviors, such as initiating or volunteering for

environmentally focused initiatives that go beyond formal job descriptions (Kim et al., 2019). GTP is set apart from general job performance by its deliberate alignment with ecological objectives, highlighting the incorporation of sustainability into daily work activities (Ones & Dilchert, 2012).

GTP is situated within the wider discourse on green organisational behaviour and sustainable human resource management, regarded as a close consequence of green HRM practices, leadership, and employee motivation (Pham et al., 2020). Its prominence is especially evident in resource-intensive industries like hospitality, where the actions of frontline workers visibly and cumulatively affect energy consumption, waste management practices, and customer views on sustainability. Employees who perform high on GTP not only comply with environmental procedures but also act as green ambassadors, influencing coworkers and customers through their example (Chaudhary, 2020).

From a theoretical standpoint, GTP reflects the application of social cognitive theory and conservation of resources theory, as it is influenced by employees' self-efficacy beliefs, access to supportive leadership, and the availability of personal and job-related resources (Hobfoll, 2001; Bandura, 2001). For instance, employees with strong green self-efficacy and high green supervisor support are more likely to persist in environmentally responsible tasks, even in the face of operational challenges or limited infrastructure, a dynamic especially relevant in emerging economies like Nigeria.

Research on measuring and enhancing employee environmental performance suggests a mix of training, motivation, and a supportive culture is necessary. A study by Karatepe et al. (2022) found that when management is committed to environmental

issues and employees are engaged in green work, they demonstrate higher task-related and proactive pro-environmental behaviors. Task-related pro-environmental behavior is similar to GTP; these are the routine work behaviors that are environmentally friendly. This suggests that engaged and supported employees don't just take discretionary green actions; they also integrate eco-friendly practices into their daily tasks, improving their performance on environmental criteria. Studies have found that GTP is positively associated with Green HRM (Renwick et al., 2013), Green Transformational Leadership (Robertson & Barling, 2013), and GSE (Chaudhary, 2020). However, research on the sequential and interactive effects of GSS, GSE, GC, and GDN on GTP remains sparse, especially in the hospitality context.

2.3 Nigerian Context

Nigeria presents a unique socio-economic and environmental context that influences employee behaviour in hospitality (Unung et al., 2025). High unemployment, low environmental awareness, limited infrastructure, and resource constraints shape how sustainability initiatives are understood and enacted (Jacob, & Umoh, 2025). The hospitality sector, which includes hotels, restaurants, and resorts, is a growing industry but one that lags in environmental innovation compared to global standards.

In Nigeria, supervisory practices often reflect hierarchical, top-down structures, which can hinder participatory approaches to sustainability. Nonetheless, there is increasing awareness among managers and employees about the need for sustainable operations due to rising costs, international pressures, and customer expectations (Wilkinson, et al, 2001). Understanding how constructs like GSS, GSE, GC, and GDN manifest in Nigerian hotels is essential for designing context-appropriate interventions.

Despite its relevance, there is a dearth of empirical studies focusing on green task performance within Nigerian hospitality settings. Most existing research is

concentrated in developed economies or Asian contexts. This study therefore contributes significantly by filling this geographical and contextual gap, offering insights that are both locally grounded and theoretically robust.

2.4 Empirical Review of Proposed Relationships

2.4.1 Green Supervisor Support and Green Task Performance.

According to Eisenberger et al. (1986), support from supervisors is a close factor in determining employee outcomes, as it offers guidance and reinforcement and indicates what the organisation values. Employees are more likely to adopt these values and act in accordance with them when supervisors visibly support environmental initiatives and demonstrate green behaviour (Kim et al., 2016).

In situations where employees work under tight oversight and changing service conditions, the impact of supervisors is amplified. Studies show that GSS is a significant predictor of employee compliance with green protocols and voluntary pro-environmental initiatives. For instance, Paillé and Raineri (2015) demonstrated that perceived green support from supervisors positively correlates with task-related green performance. Similarly, Kim et al. (2017) found that employees in environmentally proactive hotel departments were more likely to report higher GTP when their supervisors emphasized eco-conscious practices. Despite such empirical support, further validation is required in low-resource settings like Nigeria, where supervisory styles and organisational norms may differ significantly.

Organizational support theory states, “Because supervisors act as agents of the organization, who have responsibility for directing and evaluating subordinates’ performance, employees would view their supervisor’s favourable or unfavourable

orientation toward them as indicative of the organization's support" (Eisenberger et al., 2002, p. 565). Accordingly, employees would presumably be willing to engage in or display ecological behaviors once they perceive that their supervisors encourage them to make contributions to the hotel's environmental sustainability initiatives. The availability of green support arising from supervisors would be the sign of the hotel's support for the protection of the ecological environment (Aboramadan & Karatepe, 2021). Under this condition, they would perceive it as a resource that helps them to meet the demands of adopting green behaviors. The literature ensures evidence regarding the influence of supervisor support on task/job performance (e.g., Chen and Wu, 2020), the effect of green human resource management on GTP (Chaudhary, 2020) and green voice behavior (Abualigah et al., 2024), the effect of green servant leadership on green management innovation via perceived organizational support for the environment (Karatepe et al., 2023), or the im pacts of environmental value, ascriptive response, psychological ownership, moral norm, and organizational support on green employee performance (Manosuthi et al., 2024). Yet no empirical research has tested the linkage between green supervisor support and GTP among hotel service workers so far. Hence, it is postulated that:

H1: Green supervisor support relates positively to GTP.

2.4.2 The mediating role of GSE in the relationship between GSS and GTP

This study proposes an indirect pathway whereby Green Supervisor Support (GSS) enhances Green Self-Efficacy (GSE), which subsequently fosters Green Task Performance (GTP). Rooted in Social Cognitive Theory (Bandura, 2001), this mediation model underscores the centrality of self-efficacy beliefs in translating external environmental cues into internally motivated, goal-directed behaviors. According to Bandura, individuals are more likely to initiate and persist in behaviors

when they believe they have the capacity to execute the necessary actions. In workplace settings, especially those requiring environmental sustainability, this means that employees' belief in their capacity to perform green tasks is crucial for actual behavioral enactment.

GSS operates as a form of vicarious and verbal persuasion two critical sources of self-efficacy (Bandura, 1997). Supervisors who model pro-environmental behavior, provide instructional guidance, offer constructive feedback, and reinforce green values can shape employees' efficacy beliefs regarding green performance. When supervisors are perceived as environmentally committed and supportive, employees internalize the feasibility and value of green tasks (Raineri & Paillé, 2016), leading to greater confidence in their own ability to enact such behaviors.

For example, Tu et al. (2019) observed that supervisor-led emotional and instrumental support was positively associated with green role identity and self-efficacy among hotel workers. Similarly, Chaudhary (2020) showed that green HRM practices could indirectly drive employee green behavior through efficacy beliefs. Furthermore, GSE has been consistently identified as a proximal motivational mechanism linking organizational practices with green outcomes such as creativity, extra-role behavior, and task performance (Chen et al., 2015; Farooq et al., 2022; Nisar et al., 2024). Yet, while the literature has established the general importance of GSE in green behavioral outcomes, empirical validation of its mediating role between supervisor support and GTP especially in emerging economies remains underdeveloped.

This gap is particularly salient in Sub-Saharan Africa, where contextual variables such as regulatory fragmentation, resource constraints, and cultural dynamics may alter the

psychological mechanisms underpinning green behavior. Nigeria, as an emerging hospitality market undergoing a transition toward sustainable tourism, presents a valuable context to examine whether GSS fosters efficacy beliefs that translate into meaningful green task performance. By testing this mediation, the current study not only addresses a critical empirical gap but also contributes culturally relevant insights into how leadership mechanisms interact with personal agency to shape pro-environmental outcomes in frontline service roles.

H2: GSE mediates the relationship between GSS and GTP

2.4.3 The mediating role of GC in the relationship between GSS and GTP

Another indirect pathway explored is the influence of GSS on Green Creativity (GC), which in turn predicts GTP. COR theory provides guidance about the development of the hypothesis regarding GSE as a mediator between green supervisor support and GTP. Specifically, COR theory posits that people endeavor to acquire and protect their limited resources, e.g., time and personal characteristics, to handle stress and strain (Hobfoll, 2001). These individuals also avail themselves of these resources to increase their work performance. Within the COR framework, supervisor support and self-efficacy are among the critical resources (Abuelhassan and AlGassim, 2022; Ibrahim et al., 2019). Hotel workers with high self-efficacy beliefs and sufficient supervisor support can "…be thought of as having a vast reservoir of resources from which to draw" (Alarcon et al., 2013, p. 822).

Compared to the ones with limited resources, such employees would display better well-being and performance due to the resources they have or have obtained (cf. Alarcon et al., 2013). Hotel workers display elevated GTP when they obtain adequate green support from their supervisors and possess high GC beliefs. Past evidence

showed that supervisor support was a significant predictor of self- efficacy (Ibrahim et al., 2019). Past and recent evidence also denoted that supervisor support or self-efficacy boosted worker performance (Etehadi and Karatepe, 2019; Sekhar and Patwardhan, 2023). Ali and Nisar (2023) reported that GC was a mediator between green commitment and employee green behavior. Nisar et al.'s (2024) research illustrated that GC mediated the link between green human resource management and hotel employees' green behaviors. Though GSE was shown as a mediator in green-related pieces, its mediating role in the association between green supervisor support and GTP has not been gauged so far.

In short, the presence of green support surfacing from supervisors enhances hotel workers' beliefs associated with their capacity to engage in environmentally sustainable efforts, which would in turn give rise to GTP. Thus, it is hypothesized that:
H3: GC mediates the influence of GSS on GTP.

2.4.4 Sequential mediation between GSS, GSE, GC, and GTP

The proposed sequential mediation GSS enhancing GSE, which boosts GC, leading to improved GTP offers a more integrated explanation of green behaviour. Employees taking advantage of supervisor support are likely to display creativity by providing their novel ideas for service improve ment and alternative solutions for problems in challenging service encounters (Yang et al., 2016). This is supported by Zhou et al. (2022) that "…individuals exhibit more creativity to meet organizational expectations when they perceive the encouragement and support of the organization accompanied by respect and reward" (p. 1). High levels of creativity would result in better work performance in the organization (Jnaneswar and Ranjit, 2022; Kim et al., 2023). Drawing on OST, the study asserts that hotel workers would engage in creative

behaviors and contribute to the firm by suggesting multiple solutions for difficult problems and sharing fresh perspectives on old problems when they receive adequate support from their supervisors (Shanock and Eisenberger, 2006).

Based on the theory of individual creative action (Ford, 1996), individuals demonstrate augmented task performance as a result of their creativity, which is influenced by sense-making processes, motivation, and knowledge and skills. Evidence suggests that supervisor support for creativity fostered employee creative performance (De Stobbeleir et al., 2011), while creativity enhanced job performance (Hur et al., 2021). Accordingly, the research argues that green supervisor support plays a pivotal role in nurturing green creativity, as it is instrumental in achieving employee satisfaction, thereby ensuring effective service delivery (Muhammad and Sarwar, 2021). As green supervisor support is characterized as "supportive and directive" (Gu et al., 2017), it acts as a catalyst for employee motivation and creativity, ultimately contributing to augmented GTP.

Beyond OST, the study also synthesizes SCT and TICA to suggest that support and efficacy beliefs are necessary precursors for creativity, which then translates into high performance (Bandura, 2001; Ford, 1996). Chaudhary (2020) suggested that GSE influences both motivational intensity and creative output in green roles, and that both variables play a role in mediating leadership effects on GTP. The study aims to enhance the understanding of how multi-level psychological and behavioural mechanisms interact to shape green performance by explicitly testing this chain of relationships. Consequently, the research anticipates that:

H4: GSE and GC serially mediate the relationship between GSS and GTP.

2.4.5 GDN as a Moderator of the Relationship between GSS and GSE

This research puts forward the idea that GDN serves as a moderator in the relationship between GC and GTP. This proposition is based on Social Learning Theory (Bandura, 1977), which asserts that individuals learn acceptable behaviors by observing others in their social surroundings. Employees who see a robust green descriptive norm—where eco-friendly actions are visibly demonstrated and socially supported by peers—are more inclined to view such actions as suitable, effective, and worthy of emulation. Such perceptions serve to confirm creative endeavors aimed at environmental protection and raise the chances that these will be translated into practice.

It is particularly important to have a strong GDN in situations where green creativity could be suppressed because of uncertainty regarding its worth, anxiety about adverse evaluation, or limits imposed by the organization. In these contexts, GDN serves as a social signal that bolsters the legitimacy of creative involvement with environmental issues. As an example, Wesselink et al. (2017) discovered that the prominence of peer behavior made the connection between pro-environmental attitudes and real sustainable actions considerably stronger. GDN diminishes the psychological and social risks linked to putting new environmental concepts into practice by rendering eco-friendly actions socially visible and bolstering them through cultural reinforcement.

In collectivist cultural contexts like Nigeria, this dynamic is amplified, as individuals are more in tune with social expectations and have a greater tendency to adhere to group norms (Hofstede, 2001).

In these contexts, workers might show heightened receptiveness to descriptive signals from their workgroup regarding what behavior is deemed suitable for the environment. Thabet et al. (2023) contend that empirical research backs this perspective, indicating that people are more inclined to imitate behaviours supported by both authority figures and their peers. In a similar vein, White et al. (2009) discovered that descriptive norms boost motivation by indicating what is effective and suitable in a specific context. This effect is even more pronounced in collectivist cultures such as Nigeria's, where employees tend to look to the group for guidance on acceptable behaviour (Hofstede, 2001). Therefore, even if supervisors provide a high degree of green support, employees are more inclined to convert this support into robust efficacy beliefs when their peers reflect the same behaviour. We therefore put forward the hypothesis:

H5: GDN moderate the positive influence of GSS on GSE, such that this positive influence is stronger among employees high on GDN than among employees low on GDN.

2.4.6 GDN as a Moderator of the Indirect Effect of GSS on GTP

In addition to their direct moderating role on self-efficacy or creativity pathways, GDN are theorised to strengthen the indirect relationship between GSS and GTP through GSE and GC. This moderated mediation hypothesis draws on Social Learning Theory (Bandura, 1977), which highlights that individual do not operate in isolation but are strongly influenced by the behaviours modelled and normalised in their social context.

GSS contributes to GTP by building GSE and stimulating green creative behaviours. However, the degree to which these psychological mechanisms are activated and ultimately translated into performance depends significantly on the surrounding social cues. When GDN are strong, they reinforce the value and legitimacy of engaging in

pro-environmental behavior. In such a normative context, the effect of GSE on GC is amplified because employees see their creativity as both socially desirable and likely to succeed. Similarly, GC is more likely to result in actual task performance when employees believe their peers support and enact similar green behaviours.

This amplification effect aligns with empirical work indicating that descriptive norms function as a catalyst in pro-environmental behaviour chains. For example, Bissing-Olson et al. (2016) and White et al. (2009) found that descriptive norms shape behavioural consistency by offering implicit social approval. In collectivist societies like Nigeria, such norms carry additional weight, as conformity to group behaviour is seen as both a cultural obligation and a pathway to workplace harmony (Hofstede, 2001). Therefore, the presence of strong GDN helps align personal beliefs (GSE), creative contributions (GC), and performance execution (GTP) by creating an enabling and reinforcing social environment. Accordingly, we hypothesise:

H6: The indirect relationship between GSS and GTP via GSE and GC is stronger among employees with high GDN than those with low GDN.

Chapter 3

RESEARCH METHODOLOGY

This chapter presents the methodological framework adopted to address the research objectives and answer the research questions in this dissertation. Given the focus of the study is to investigate the links between green supervisor support, green self-efficacy, green creativity, green descriptive norms, and green task performance in the Nigerian hospitality sector, quantitative approach was deem appropriate to capture the scope of the study. This chapter delineates the philosophical assumptions of this study, consequently outlining the research methodological design, provides a comprehensive overview of the population, sampling strategy, data collection techniques, and analytical instruments.

Furthermore, the chapter also examines the justification for using Partial Least Squares Structural Equation Modeling (PLS-SEM) as the primary analytical tool, as well as the criteria for evaluating the psychometric properties of the data. Ethical considerations are incorporated throughout the investigation, ensuring that the research methodology complies with established academic and professional standards. The chapter concludes with a summary of the methodological decisions made and their connection to the study objectives.

3.1 Research Philosophy and Approach

According to Levitt et al. (2021), it is essential to establish a suitable research philosophy and methodological approach to establish the school of thought, flow, and

credibility. This research, therefore, adopts a positivist philosophical stance. The positivist philosophical approach presumes that reality is objective, measurable, and independent of the researcher (Gannon et al., 2022). The method aligns with the study's objective of investigating the anticipated correlations among well-defined characteristics based on empirical data gathered from a structured survey instrument. By adhering to the principles of positivism, this study prioritises objectivity, precise measurement, and the generalizability of findings within the hotel industry. In line with the aforementioned philosophical view, this study deployed a deductive research technique. Deductive research approach can be defined as the process by which hypotheses can be developed relying on existing theoretical frameworks, and then hypotheses are subjected to empirical evaluation using statistical tools (Casula et al., 2021; Ali & Birley, 1999).

3.1.1 Research Paradigm

A research paradigm can be defined as a set of ideas and assumptions that influence how researchers perceive reality, gather information, and analyse the information to determine an outcome (Rehman & Alharthi, 2016). The positivist paradigm was deployed in this study. This paradigm posits that reality exists independently of human experience and can be objectively evaluated through observation and scientific inquiry (Park et al., 2020; Meredith et al., 1989). According to Straub et al. (2004), positivism promotes the use of standardised techniques, measurable data, and statistical analyses to find out patterns and relationships among variables.

Positivism as a concept originated from the research contributions of Auguste Comte in the early 1800s (Comte, 1975). According to the research, positivism can be characterised as a systematic method for comprehending the universe through

scientific techniques. This method emphasises objectivity, measurable evidence, and also the identification of universal principles. This paradigm has notably influenced many fields from natural sciences to sociology and psychology. This paradigm champions a systematic, evidence-based strategy that places replicability and generalizability at the forefront (Treagust & Won, 2023).

Positivism fundamentally relies on empiricism, which prioritises sensory experience and objective facts as the basis of knowledge (Hjørland, 2005). Comte's idea of a "positive" science was aimed at advancing research beyond metaphysical speculation but following guided principles (Comte, 1858). The paradigm was further expanded by Emile Durkheim by applying positivist concepts to sociology. The study viewed social truths as external realities that could be objectively explored (Gieryn, 1982).

Additionally, the positivist viewpoint was further reinforced by the Vienna Circle's logical claim that meaningful assertions must be experimentally verifiable; thus, abstract or unobservable propositions must be eliminated from scientific discourse (Uebel, 2021). Hence, the positivist paradigm is congruent with the goal of study aimed at testing theory-driven hypotheses in an organised and controlled setting (Kraft, 2023). Given that the study aims to investigate the impacts of green supervisor support on employee outcomes such as green self-efficacy, green creativity, and green task performance using a model informed by known theories, consequently positivism is an adequate epistemological basis.

The epistemological approach keeps the investigation focused on visible and quantifiable characteristics, allowing statistical approaches to accept or deny postulated hypotheses (Yilmaz, 2013). Furthermore, the positivist perspective is

consistent with the deductive reasoning behind the research. The study begins by developing hypotheses based on established theoretical frameworks, including Organisational Support Theory, Conservation of Resources Theory, Social Cognitive Theory, Social Learning Theory, and the Theory of Individual Creative Action. The hypotheses are formulated and evaluated with the deployment of empirical and objective methods. Furthermore, the systematic design and the focus on measurement validity, hypothesis testing, and generalizability underscore the conceptual consistency of this research's aims and paradigm.

3.2 Research Design

This section research design details the methodology used to conduct the study, ensuring alignment with its objectives. This study employs a quantitative, cross-sectional, multi-wave, and explanatory research approach, which is suited for investigating hypothesised correlations between established constructs using empirical data. Quantitative research methodological approach said to be a systematic empirical examination that uses statistical, mathematical, or computer methods to measure and interpret numerical data (Flynn et al., 1990). This scientific approach follows the positivist paradigm, which stresses objectivity, measurement, and the identification of generalizable patterns across groups (Fraser, 2025). This is done by translating observations into measurable measurements. quantitative research allows for exact study of variable correlations, hypothesis testing, and outcome prediction (Alford & Teater, 2025).

Quantitative research is founded on the capacity to operationalize abstract notions into quantifiable variables (Hooge et al., 2025). Researchers carefully describe conceptions in quantifiable terms, allowing for consistent data collecting across situations. This

approach makes replication studies easier, which is essential for scientific legitimacy, because other researchers may use the same measuring devices to confirm the findings. Structured surveys, controlled experiments, systematic observations, and analysis of existing statistical data are examples of common data gathering approaches, all of which are intended to limit subjective interpretation while increasing dependability (Kumar & Praveenakumar, 2025).

A quantitative design was chosen because the study is based on established theoretical frameworks and aims to test directional hypotheses about the impact of green supervisor support on employee green behaviour, with mediating and moderating variables such as green self-efficacy, green creativity, and green descriptive norms. Quantitative approaches enable the collection of standardized data, simplify statistical analysis, and improve the generalizability of findings across similar situations (Vanderstoep & Johnson, 2008). The explanatory aspect of the study design emphasizes the emphasis on discovering and describing causal pathways and interrelationships between variables. Rather than just stating the prevalence of green practices in the hospitality business, this research seeks to explain how and why particular leadership, psychological, and social elements cause variances in green job performance across employees.

Additionally, the study used a cross-sectional design, with data collected at a particular moment in time. Although longitudinal designs may provide stronger causal assertions, the cross-sectional technique is nevertheless effective for theory testing in circumstances where temporal data are difficult to get (Rindfleisch et al., 2008). This technique also enables the rapid assessment of existing behaviors and views in Nigeria's eco-certified hotels. To improve scientific rigor and eliminate common

method bias, the study used a three-wave time-lagged survey design, as recommended in behavioral research. Data were obtained at three different time intervals, with one week between each wave. At Time 1, information about green supervisor support was obtained. At Time 2, we gathered data on green descriptive norms and green self-efficacy. At Time 3, data were collected on green creativity and task performance. This tiered technique not only follows the chronological sequence of the theoretical model, but it also improves the study's internal validity (Street & Ward, 2012).

The study focused on personnel in customer-contact roles in verified eco-friendly hotels in Nigeria, as identified by ETIC Hotels (2023). These staff were chosen because they play an important role in establishing and demonstrating ecologically responsible conduct, which has a direct impact on customers' impressions and the hotel's ecological performance. The hotels were identified using a judgmental sample approach, which ensured alignment with the research's focus on sustainability (Mahran et al., 2025). To maintain confidentiality and consistency, one designated staff member at each participating hotel distributed and retrieved surveys in sealed envelopes. To ensure linguistic clarity and eliminate potential comprehension barriers, the survey was administered in English the official language of Nigeria. Respondents with limited English proficiency were excluded from the study. This methodological decision contributed to the overall consistency and reliability of the data. Across the three waves, 450 questionnaires were initially distributed. After data cleaning, the final sample consisted of 402 usable responses, yielding a response rate of 89.3%, which is consistent with or higher than previous studies in hospitality sustainability research (e.g., Xu et al., 2023).

Finally, quick data collecting from a large sample while assuring consistent replies is allowed because the study design includes the use of a standardized, self-admininstered questionnaire. The design also facilitates the use of Partial Least Squares Structural Equation Modeling (PLS-SEM) to analyze complicated interactions including mediation and moderation effects (Lowry & Gaskin, 2014). **Collectively, the research design provides methodological rigor, theoretical consistency, and fit for the study's analytical strategy.

3.3 Population and Sampling

3.3.1 Target Population

The target audience of this study consisted of front-line personnel working in Nigerian eco-certified hotels. These professionals work in customer-contact staff , like as front desk agents, food and beverage service people, housekeepers, and other operational responsibilities that have a direct impact on guests' environmental impressions and experiences. Frontline personnel are critical to the effective implementation of green initiatives due to their proximity to both visitors and operational processes and thus make acceptable units of research for a study studying pro-environmental workplace behaviour. Only hotels classified as eco-friendly on the ETIC Hotels platform (2023) were considered in order to guarantee that the study was conducted inside enterprises that were formally dedicated to sustainability. These hotels have established a commitment to environmental responsibility which makes them ideal for studying the impact of organizational and psychological variables on green job performance.

3.3.2 Sampling Technique

In order to find suitable hotels based on their eco-certification status, a judgmental (purposive) sample approach was used (Kizanlikli et al., 2023). This strategy guaranteed that the main goal of the study, which is to investigate green behaviors in

environments where environmental practices are actively encouraged, was satisfied. A designated staff member functioned as a liaison within the selected hotels, facilitating the internal distribution of survey items.

A non-probability convenience sample approach was used to choose the participants, with an emphasis on employees who were present and available at the time of data collection. As the survey instrument was conducted in English, participants had to have direct customer-facing positions and demonstrate competence in English, which is Nigeria's official language. The ones eliminated are respondents with weak English ability in order to reduce misunderstanding of scale items and maintain data quality.

3.3.3 Sample Size Determination

Throughout three data collecting waves, a total of 450 questionnaires were delivered to the participating hotels. Following the multi-stage distribution, 402 viable responses were kept for analysis after removing incomplete or incorrectly completed questionnaires. Out of the fifty eco-certified hotels contacted, thirty-six agreed to engage in the study. Data were obtained only from employees in customer-facing roles since these employees must attain the hotel's environmental sustainability goals while representing the eco-conscious image of the hotel (Karatepe et al., 2022). The criteria upon which respondent selection was based were carefully identified, while particular emphasis was set on respondents' characteristics, such as job tenure, that may influence their perceptions of organisational support and consequently green task performance (GTP). Each hotel that took part appointed a representative to facilitate data collection in conjunction with the researcher. The survey instrument was distributed in the English language, which is Nigeria's official language. To make responses comparable and valid, those who could hardly speak or write English were left out. At the first

wave (Time 1), 450 questionnaires were disseminated, with a return count of 427. The same 427 employees were invited to take part in the second wave (Time 2), from which 404 valid responses were collected. At the last phase (Time 3), 402 employees responded to the survey. Data collection occurred over a span of four months-from February to May 2022. The overall response rate was 89.3%, consistent with rates provided in related investigations (e.g., Xu et al., 2023). Demographic characteristics of respondents have been listed in Table 1. Additionally, the resultant sample size meets the requirements for Partial Least Squares Structural Equation Modeling (PLS-SEM), which requires a minimum sample size of ten times the number of structural routes pointing at any construct in the model's most complicated region (Hair et al., 2021).

3.4 Measurement Instrument

The data for this study were collected using a structured self-administered questionnaire. The questionnaires include validated multi-item scales adapted from earlier research. The questionnaires were developed to record frontline workers' views on GSS, GSE, GDN, GC, and GTP. The questionnaire also includes a demographic section to gather background information about the respondents. All constructs were measured using established scales, and some were slightly adapted to fit the green hospitality context in Nigeria. A five-point Likert scale (with values from 1 = strongly disagree to 5 = strongly agree) was used to assess all latent constructs. This response format is widely used in behavioural research and provides an optimal balance between measurement sensitivity and respondent cognitive load.

3.4.1 Green Supervisor Support

Green supervisor support was measured using a five-item scale which was adapted from Luu (2019). What this scale captures is the degree to which employees perceive

their supervisors as supportive of environmental efforts. A sample item is: *"My supervisor encourages me to work in an environmentally friendly way."* The scale aligns conceptually with organizational support theory and it demonstrated high internal consistency in prior studies.

3.4.2 Green Self-Efficacy

Green self-efficacy was measured using a five-item scale which was adapted from Chen and Chang (2013). What this scale assesses is the belief that an individual has in their ability to perform job tasks in an environmentally responsible manner. A sample item includes: *"I am confident in my ability to carry out my work tasks in an eco-friendly way."*

3.4.3 Green Descriptive Norms

Green descriptive norms were measured using a four-item scale which was adapted from Lin and Ho (2008) and Nimri et al. (2020). What this scale reflects are the employees' perceptions of the extent to which their coworkers engage in environmentally responsible behavior. A sample item is: *"Most of my colleagues care about and practice green behavior at work."*

3.4.4 Green Creativity

Green creativity was measured with a six-item scale which was adapted from Chen and Chang (2013). What this scale assesses is the extent to which employees generate novel and useful ideas aimed at promoting environmental sustainability. A sample item includes: *"I often come up with creative ideas to improve environmental performance at work."*

3.4.5 Green Task Performance

Green task performance was measured using a four-item scale which was adapted from Bissing-Olson et al. (2013). What this scale captures is the extent to which employees

perform their routine job tasks in a way that aligns with environmental goals. A sample item is: *"I carry out my job responsibilities in a manner that reduces environmental harm."*

3.5 Pretest and Pilot Study

In order to ensure the clarity, contextual appropriateness, and psychometric soundness of the measurement instrument, a pretest and pilot study were carried and they were done before the full-scale data collection. This preliminary step was necessary to refine the questionnaire items, confirm their relevance to the Nigerian hospitality context, and identify potential issues related to comprehension or wording.

3.5.1 Pretest Procedure

The pretest phase involved an initial review of the questionnaire by two academic experts in organizational behavior and hospitality management. What the experts were asked to do is to assess the content validity, grammatical clarity, and conceptual alignment of each item with its respective construct. Due to feedback from this exercise, it led to minor modifications, such as simplifying language, removing redundancies, and enhancing contextual fit without altering the theoretical meaning of the items.

3.5.2 Pilot Study Implementation

With a convenience sample of 5 frontline employees from two eco-certified hotels that were not included in the main study, a pilot study was carried out which followed the pretest. Under similar conditions to those used in the primary data collection process, these participants met the inclusion criteria and completed the full questionnaire. Assessing the instrument's internal consistency and identifying any ambiguities or structural issues in the survey administration, was the aim of the pilot. Respondents were also invited to provide comments on the clarity, difficulty, and length of the

questionnaire.Minor adjustments were made based on therir feedback which is to improve item readability and ensure alignment with hospitality service terminology commonly used in Nigeria.

3.6 Data Collection Procedure

Data were collected using a time-lagged, three-wave survey design in order to enhance the methodological rigor of the study and address concerns related to common method bias. This approach allowed for the temporal separation of predictor, mediator, moderator, and outcome variables, thereby minimizing the inflation of relationships due to same-source bias.

3.6.1 Data Collection Waves

Data were gathered at three points in time, with a one-week interval between each wave. This sequencing was aligned with the theoretical flow of the model:

- Time 1: Participants responded to items measuring *Green Supervisor Support*.
- Time 2: Participants completed scales related to *Green Self-Efficacy* and *Green Descriptive Norms*.
- Time 3: Data were collected on *Green Creativity* and *Green Task Performance*.

In order to ensure that participants' responses to outcome variables were temporally distanced from those related to antecedents, this time-lagged approach was used , thus improving the internal validity of the results.

3.6.2 Participant Recruitment and Coordination

The sample was drawn from eco-certified hotels in Nigeria, verified through the ETIC Hotels platform (2023). To obtain permission and to identify a liaison staff member, each hotel's management was contacted in advance. This designated staff member served as the on-site data coordinator, responsible for distributing and collecting

questionnaires at each wave. All questionnaires were distributed in sealed envelopes to ensure confidentiality and were collected in the same manner to preserve anonymity. Before beginning the survey, participants were provided with a cover letter and informed consent form outlining the purpose of the study, voluntary nature of participation, and assurance of confidentiality. Participation was entirely voluntary, and respondents could withdraw at any stage without consequence.

3.6.3 Language and Administration

The questionnaires were administered in English, which is Nigeria's official language and the primary language of business communication. Participants with limited English proficiency were excluded to reduce the risk of misinterpretation and to ensure data quality. Instructions were clearly outlined, and the average time required to complete each questionnaire was approximately 10–12 minutes per wave.

3.6.4 Response Rate and Completion

Across the three waves, a total of 450 questionnaires were distributed. 402 questionnaires were found valid and were retained for analysis after removing incomplete or mismatched responses across the periods, yielding an effective response rate of 89.3%. The high response rate was attributed to the structured distribution protocol, the involvement of internal coordinators, and the follow-up reminders issued during the process.

Table 1: Respondents' Profile (n= 402)

	Frequency	**Percentage**
Age		
18-27	207	51.5
27-37	155	38.6
38-47	40	10.0
Total	402	100.0
Gender		
Male	98	24.4

Female	304	75.6
Total	402	100.0
Education		
Primary School	67	16.7
Secondary and High School	187	46.5
Two-year college degree	110	27.4
Four-year college degree	34	8.5
Master or Ph.D degree	4	1.0
Total	402	100.0
Organizational Tenure		
Under 1 year	249	61.9
1-5 years	111	27.6
6-10 years	42	10.4
Total	402	100.0

3.7 Common Method Variance

To assess the potential presence of common method variance in this study, two distinct statistical methods were utilised. The first consisted of carrying out Harman's single-factor test. An unrotated exploratory factor analysis was performed on all measurement items. The result of the analysis indicated that the first factor accounted for just 24.27% of the total variance, which is considerably below the commonly accepted threshold of 50%. This reveals that no single dominant factor emerged (Podsakoff et al., 2003). Nonetheless, this method has is limitation which have been widely acknowledged, particularly its inability to definitively eradicate the risk of common method variance (Min et al., 2016).

A second test was conducted using the random dependent variable method to identify lateral collinearity, which further strengthens the analysis. This is especially important for research that uses variance-based structural equation modeling techniques, like PLS-SEM. In the model, a random dummy variable was created with values ranging from 0 to 1 and included as an artificial endogenous variable affected by all latent components (Kock & Lynn, 2012).

3.8 Data Analysis Technique

The information gathered for this study was examined using a mix of descriptive and inferential statistical methods. Partial Least Squares Structural Equation Modeling (PLS-SEM), which was implemented using the SmartPLS software, was the primary analytical tool used. This method was selected because to its resilience when dealing with non-normally distributed data and generally modest sample sizes, as well as its appropriateness for complicated models with several mediating and moderating factors (Hair et al., 2021).

Chapter 4

RESULT

4.1 Confirmatory Composite Analysis (CCA)

Confirmatory composite analysis (CCA) was first performed to check if the constructs correctly represented the relations among their own indicators before evaluating the measurement model. Henseler and Schuberth (2020) emphasise that CCA is important to establish whether the theoretical model adequately reproduces the empirical correlation matrix derived from observed data. Essentially, this methodology was used as a priori diagnosis to see whether the explanatory framework was consistent with the elementary data structure.

CCA considered the assessment of several model fit indices and discrepancy metrics according to the methodological recommendations of Henseler et al. (2016). In particular, we considered the Standardized Root Mean Square Residual (SRMR) alongside two other discrepancy measures, the Geodesic Distance (dG) and the Unweighted Least Squares Distance (dULS). In variance-based SEM, the distances are often employed to assess the fit between the observed and model-implied correlation matrices.

A good fit of the data to the model was indicated by the SRMR values, both calculated for the estimated model and the saturated model, as they were less than the conventional cutoff of 0.08. Also, the dULS and dG statistics were low to the 95th

percentile (HI95) value of the bootstrapped distribution acquired from 10,000 bootstrapped resamples and were thus found to be acceptable. This provided for none of the discrepancy metrics crossing the critical limits required for the rejection of the model.

Table 2: Confirmatory Composite Analysis and Model Fit Results

Discrepancy measure	Saturated Model		Estimated Model		
	Statistical value	Critical value (HI_{95})	Statistical value	Critical value (HI_{95})	
SRMR	0.049	0.081	0.055	0.087	Supported
d_{ULS}	0.625	2.469	1.137	2.889	Supported
d_G	0.559	1.202	0.572	1.308	Supported

SRMR= Standardized root mean square residual; d_{ULS}= Unweighted least squares distance; d_G=Geodesic distance.
Discrepancy values based on t[10000] two-tailed bootstrapping test and mode A

4.2 Measurement Model Quality

We followed the rigorous steps advocated by Hair et al. (2020), especially focusing on the validity and reliability of reflective constructs, in order to assess the quality of the measuring model. To determine that the psychometric properties of the model fulfilled the necessary requisites, internal consistency, convergent validity, or discriminant validity evaluation of the model were carried out at two levels: the single indicator level and the construct level.

4.2.1 Indicator Reliability

The first step in assuring the integrity of the measurement model was to investigate indicator reliability for each indicator used in measuring the reflective constructs. Indicator reliability is the degree to which an observed item repeatedly measures the variance of its latent variable; it was evaluated concerning the outer loadings. As recommended by Hair et al. (2020), indicators should have standardised loadings that exceed 0.708. Loadings at or above this threshold imply that at least 50% of the

variance in the item is attributable to the underlying construct it is intended to measure, thereby supporting the item's retention in the model.

In the present study, to demonstrate that they reliably captured the dimensions of their respective constructs, most indicators met or exceeded this benchmark. Additional steps were undertaken to determine whether the exclusion of lower-loading items would improve the measurement model without compromising theoretical completeness, because not all indicators achieved this level. Following the procedures outlined by Hair et al. (2014, 2019), a two-rule criterion was applied. Indicators with loadings below 0.40 were immediately excluded, as such low values indicate weak contribution to construct measurement and are generally regarded as unacceptable for inclusion in confirmatory models. Conversely, for indicators with loadings ranging between 0.40 and 0.70, a more nuanced judgment was made. These items were evaluated in terms of their impact on internal consistency reliability metrics, as well as their theoretical relevance. Applying this approach, two indicators were removed due to outer loadings falling below the 0.40 threshold.

4.2.2 Internal Consistency Reliability

Internal consistency reliability reflects the extent of association such items constituting a construct have among themselves, or the extent to which they consistently measure an underlying dimension. It is a necessary condition for the evaluation of measurement models because it determines that the indicators given to a latent construct can act coherently in actually representing such a construct. Three internal consistency measures were considered here, as stated by Hair et al. (2020), namely, Cronbach's Alpha, composite reliability (rho_C), and rho_A reliability coefficient. Because each index provides a somewhat different assessment of reliability under different

assumptions about item intercorrelations and construct homogeneity, using many indices results in a more robust evaluation.

All of the latent constructs had Cronbach's alpha values between 0.721 and 0.831. These numbers show acceptable levels of internal consistency because they are higher than the minimal requirement of 0.70. Despite being the most often used statistic for evaluating scale reliability, Cronbach's alpha tends to underestimate genuine dependability, particularly when items have different loadings. To overcome this constraint, composite reliability was also computed. For every construct, the composite reliability ratings (rho_C) ranged from 0.823 to 0.870. Without assuming equal indicator loadings, these values show strong internal consistency and are comfortably above the 0.70 threshold.

In addition to these two measures, rho_A was also computed to provide a construct-specific reliability estimate that is considered more accurate in the context of PLS-SEM. The values for rho_A ranged from 0.747 to 0.805, further affirming the reliability of the measurement model. The use of rho_A is particularly advantageous in confirmatory composite models, as it avoids the inflation associated with composite reliability and the underestimation associated with Cronbach’s alpha. The convergence of findings across all three-reliability metrics strengthens confidence in the consistency and coherence of the latent constructs.

4.2.3 Convergent Validity

The degree to which the indicators of a given concept converge or share a significant amount of variation is known as convergent validity. Stated differently, it assesses whether there is a significant empirical correlation between the observed variables that are theoretically related to the same latent construct. To evaluate convergent validity

in this investigation, the Average Variance Extracted (AVE) was computed for each reflective construct in accordance with Hair et al. (2020) standards.

The average variance captured by a construct from its indicators in relation to the variance caused by measurement error is known as the AVE. Since it indicates that the construct accounts for at least 50% of the variance in its observed measures, an AVE value of 0.50 or higher is regarded as acceptable. The validity of the measurement model would be compromised by values below this cutoff, which would suggest that the error variance is greater than the variation explained by the latent concept.

In this study, all constructs reported AVE values ranging from 0.524 to 0.664, thereby surpassing the minimum requirement. These results indicate that the items associated with each construct are not only internally consistent but also capture a substantial proportion of the underlying conceptual domain they are intended to measure. This empirical evidence supports the claim that each set of indicators is strongly interrelated and appropriately grouped under its respective latent variable. Beyond statistical adequacy, the interpretation of AVE values must also consider the theoretical relevance of the constructs being measured. The indicators retained in this model were carefully adapted from validated instruments used in prior research within the domains of environmental behaviour, hospitality management, and organisational psychology. Their ability to jointly explain a significant proportion of construct variance provides further support for the theoretical structure of the model.

Taken together, these findings affirm that the constructs in the model exhibit satisfactory levels of convergent validity. The AVE values confirm that the observed indicators provide a coherent and representative reflection of their intended latent

constructs, thereby validating the operationalisation of key variables used in this study and supporting the measurement model's integrity for further structural evaluation.

Table 3: Composite Reliability and Validity

Construct/Item	FL	α	*pA*	CR	AVE
GSS (from Karasek et al., 1982)					
GSS01	0.843***				
GSS02	0.843***				
GSS03	Dropped	0.721	0.763	0.823	0.543
GSS04	0.620***				
GSS05	0.606***				
GSE (from Chen et al., 2015)					
GSE01	0.773***				
GSE02	0.741***				
GSE03	0.778***	0.821	0.844	0.870	0.533
GSE04	0.732***				
GSE05	0.815***				
GSE06	0.595***				
GC (from Chen and Chang, 2013)					
GC01	0.771***				
GC02	0.696***				
GC03	0.642***	0.772	0.776	0.846	0.524
GC04	0.771***				
GC05	Dropped				
GC06	0.732***				
GTP (from Netemeyer and Maxham, 2007					
GTP01	0.833***				
GTP02	0.774***	0.746	0.747	0.856	0.664
GTP03	0.836***				
GDN (from Shin and Kang, 2021)					
GDN01	0.780***				
GDN02	0.791***	0.749	0.805	0.851	0.656
GDN03	0.856***				

Notes: GSS= Green supervisor support; GSE= Green self-efficacy; GC= Green creativity; GTP= Green task-performance; GDN= Green descriptive norm.
FL= Factor loading ***p-value<0.001 based on t[10000] two-tailed bootstrapping test; *α*= coefficient alpha; *pA*= Composite reliability (rho_a); CR= Composite reliability (rho_c); AVE= Average variance extracted.

4.2.4 Discriminant Validity

Discriminant validity refers to the degree to which a construct is truly distinct from other constructs within the model, both conceptually and empirically. Establishing discriminant validity is critical, as it ensures that each latent variable measures a unique aspect of the theoretical framework and does not merely reflect overlapping dimensions of other constructs. In this study, discriminant validity was assessed using the Heterotrait–Monotrait Ratio of Correlations (HTMT), which has been widely endorsed in recent literature as a more reliable and stringent criterion compared to traditional methods such as the Fornell-Larcker criterion.

Estimating the ratio of within-construct correlations (monotrait-heteromethod) to between-construct correlations (heterotrait-heteromethod) is the goal of the HTMT technique. Stronger evidence that the constructs are empirically distinct is indicated by lower HTMT values. Hair et al. (2020) state that conceptually related constructs can have an HTMT value of less than 0.90, while theoretically similar constructs may occasionally have a more conservative threshold of 0.85. Strong evidence for discriminant validity across all model constructs was provided by the fact that all pairwise HTMT values in this investigation were significantly below the 0.90 benchmark. These results imply that because the constructs measure conceptually distinct domains, they are not significantly affected by multicollinearity or redundancy.

As suggested by Franke and Sarstedt (2019), we additionally used the HTMT inference approach to reinforce the evaluation. Using a bootstrapping process with 10,000 resamples, this method creates bias-corrected confidence intervals. It then determines whether the intervals' upper bounds surpass the crucial value of 0.90. The findings

verified that, in every instance, the 95% CIs did not surpass the 0.90 cutoff or include the value of 1.00. The conclusion that the latent variables in the model can be experimentally distinguished from one another is supported by this statistical data.

The combination of point estimates and inferential confidence interval checks provides a robust confirmation of discriminant validity. These results not only satisfy the methodological expectations of variance-based structural equation modeling but also support the conceptual structure of the study. The constructs under investigation though theoretically related in explaining green behavior demonstrate sufficient independence to warrant separate treatment in the structural model.

Table 4: Discriminant Validity Check Using the $HTMT_{90}$ and $HTMT_{inference}$ Criterion

	1	3	4	5	6
1.GSS					
	0.171				
	[0.123,0.288]				
2.GSE					
	0.148	0.471			
3.GC	[0.114,0.277]	[0.327,0.612]			
	0.240	0.759	0.685		
4.GTP	[0.132,0.364]	[0.614,0.900]	[0.545,0.806]		
	0.124	0.518	0.414	0.278	
5.GDN	[0.081,0.237]	[0.404,0.620]	[0.282,0.543]	[0.164,0.414]	

Notes: HTMT= Heterotrait-monotrait ratio; GSS= Green supervisor support; GSE= Green self-efficacy; GC= Green creativity; GTP= Green task-performance; GDN= Green descriptive norm.
$HTMT_{inference}$ based on t[10000] two-tailed bootstrapping test; Confidence interval in brackets.

4.3 Structural Model Assessment

Following the validation of the measurement model, we proceeded to assess the structural model to evaluate the hypothesised relationships among the latent constructs. The first diagnostic step involved examining potential multicollinearity

among the predictor constructs, which, if present, could bias the estimation of path coefficients and reduce interpretability. For this purpose, Variance Inflation Factor (VIF) values were computed for all predictor variables in the model.

VIF values exceeding 3.0 are considered indicative of problematic multicollinearity based on the guidelines established by Hair et al. (2019). Each predictor's variance inflation factor (VIF) score ranged from 1.025 to 1.666, significantly below the cautious cutoff point of 3.3 (Kock, 2017). When taken together, the results of the VIF diagnostics and the exploratory factor analysis show that common technique bias is unlikely to compromise the validity of the study's conclusions. After ruling out multicollinearity, we focused on verifying the proposed correlations using bootstrapping techniques in accordance with Cepeda-Carrion et al. (2017)'s suggestions for assessing complicated mediation models in PLS-SEM. A bootstrapping process using 10,000 subsamples was used to assess these effects, provide bias-corrected confidence intervals, and assess the importance of each pathway. The direct effect (H1) from GSS to GTP was positive and statistically significant ($\beta = 0.083$, $p < 0.005$), thereby confirming that supportive green leadership has a direct influence on environmentally responsible employee behaviour.

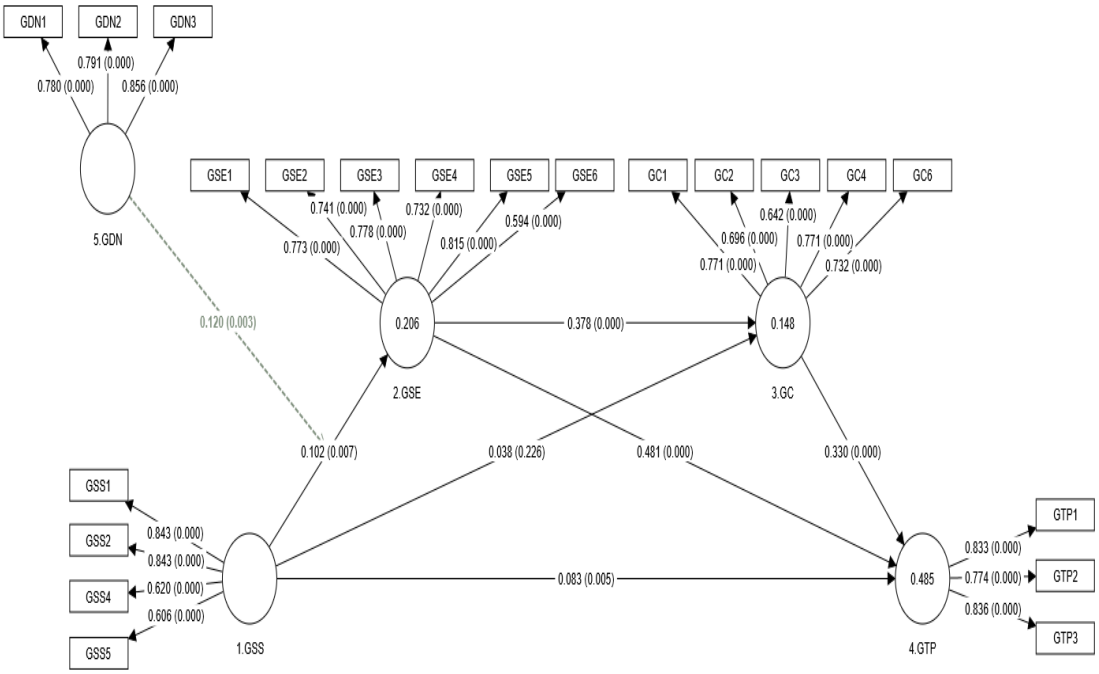

Figure 1: Direct Effects Structural Model Results

Notes: SmartPLS v.4 output; GSS= Green supervisor support; GSE= Green self-efficacy; GC= Green creativity; GTP= Green task-performance; GDN= Green descriptive norm. p-value in parentheses based on 10,000 and one-tailed test.

The results further supported H2, revealing a significant indirect effect from GSS to GTP through GSE ($\beta = 0.049$, $p < 0.015$), indicating that employees' belief in their green capability serves as a meaningful conduit between leadership support and performance. However, the mediating role of GC in the pathway from GSS to GTP (H3) was not supported by the data. The path coefficient for this indirect effect was small and statistically insignificant ($\beta = 0.012$, $p = 0.228$), with a confidence interval that included zero thereby leading to the rejection of H3.

In contrast, the serial mediation model (H4) involving both GSE and GC was confirmed. The indirect path from GSS to GTP, sequentially mediated by GSE and GC, produced a statistically significant effect ($\beta = 0.013$, $p < 0.018$). This finding illustrates that the development of green self-efficacy not only contributes to enhanced task performance directly but also indirectly supports green creativity, which in turn leads to higher green task outcomes. These direct and indirect paths are visually summarized in Figure 2, and their statistical estimates are presented in Table 6.

Beyond mediation, the study also examined whether Green Descriptive Norms (GDN) serve as a moderator of both direct and indirect effects. First, the interaction between GSS and GDN was tested in predicting GSE. The analysis revealed a significant interaction effect ($\beta = 0.120$, $p < 0.003$), confirming H5. This suggests that when employees perceive a stronger green behavioral norm among peers, the positive impact of supervisor support on self-efficacy is amplified.

Table 5: Structural Model Test Results

	Path Coefficient	t-values	CI	Decision
Direct effects test				
a_1=GSS→GSE	0.102(0.007)	2.454	0.023;0.160	
a_2=GSS→GC	0.038(0.226)	0.753	-0.051;0.115	
a_3=GSE→GC	0.378(0.000)	6.407	0.275;0.470	
b_1=GSE→GTP	0.481(0.000)	6.778	0.336;0.597	
b_2=GC→GTP	0.330(0.000)	4.658	0.214;0.447	
c'=GSS→GTP (***H1***)	0.083(0.005)	2.579	0.028;0.133	Supported
Mediating effects test				Supported
H2: GSS→GSE→GTP	0.049(0.015)	2.175	0.012;0.084	Supported
H3: GSS→GC→GTP	0.012(0.228)	0.747	-0.014;0.041	Not supported
H4: GSS→GSE→GC→GTP	0.013(0.018)	2.104	0.004;0.024	Supported
Total indirect effect on GTP	0.074(0.008)	2.412	0.018,0.118	
Total effect on GTP	0.157(0.000)	3.704	0.073,0.214	
Moderated mediation test				
H5: GDN*GSS→GSE	0.120(0.003)	2.726	0.045;0.189	Supported
H6: GDN*GSS→GSE→GC→GTP	0.015(0.014)	2.211	0.006;0.028	Supported
Control Variables				
Gender→GTP	0.099(0.299)	1.038	-0.087; 0.287	No effect
Tenure→GTP	-0.009(0.805)	-0.247	-0.077; 0.061	No effect
Endogenous variable	**R^2**		**Adjusted R^2**	
GSE	0.206		0.200	
GC	0.148		0.144	
GTP	0.485		0.481	

Notes: GSS= Green supervisor support; GSE= Green self-efficacy; GC= Green creativity; GTP= Green task-performance; GDN= Green descriptive norm.
p-value in parentheses based on 10,000, one-tailed test; CI= Bootstrapping 90 percent confidence interval bias corrected.
Control variable tests based on 10,000 bootstrapping, two-tailed and 95 percent confidence interval bias corrected.

Additionally, the moderating role of GDN in the serial mediation process from GSS to GTP via GSE and GC was also supported (H6). The results demonstrated a significant moderated mediation effect ($\beta = 0.015$, $p < 0.014$), indicating that high levels of perceived normative green behavior strengthen the indirect path between green leadership and task performance through the sequential influence of psychological and creative mechanisms.

To illustrate these moderating dynamics, simple slope analyses were performed as recommended by Hair et al. (2017). These were graphically represented in Figures 3 and 4. Figure 3 depicts the interaction effect for H5, showing the variation in the relationship between GSS and GSE at high (+1 SD) and low (–1 SD) levels of GDN. The dotted line, representing high GDN, shows a steeper positive slope compared to the solid line, which reflects the relationship under low GDN conditions. A similar pattern is observed in Figure 4, which visualizes the conditional indirect effect (H6). The dotted line again corresponds to high GDN, demonstrating a stronger sequential relationship between GSS and GTP when normative peer behavior is environmentally oriented.

The structural model results provide robust empirical support for most of the hypothesized relationships. They highlight the role of supportive leadership and employee self-efficacy in promoting green task performance, as well as the moderating power of peer norms in shaping both direct and sequential behavioral outcomes.

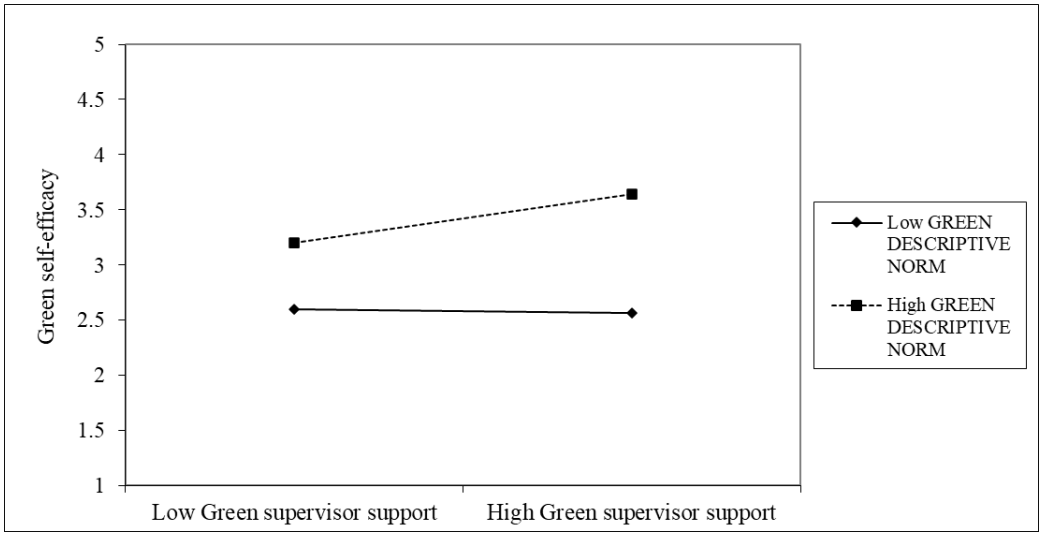

Figure 2: Moderating Effect of Green Descriptive Norms on The Direct Relationship between Green Supervisor Support and Green Self-Efficacy (H5)

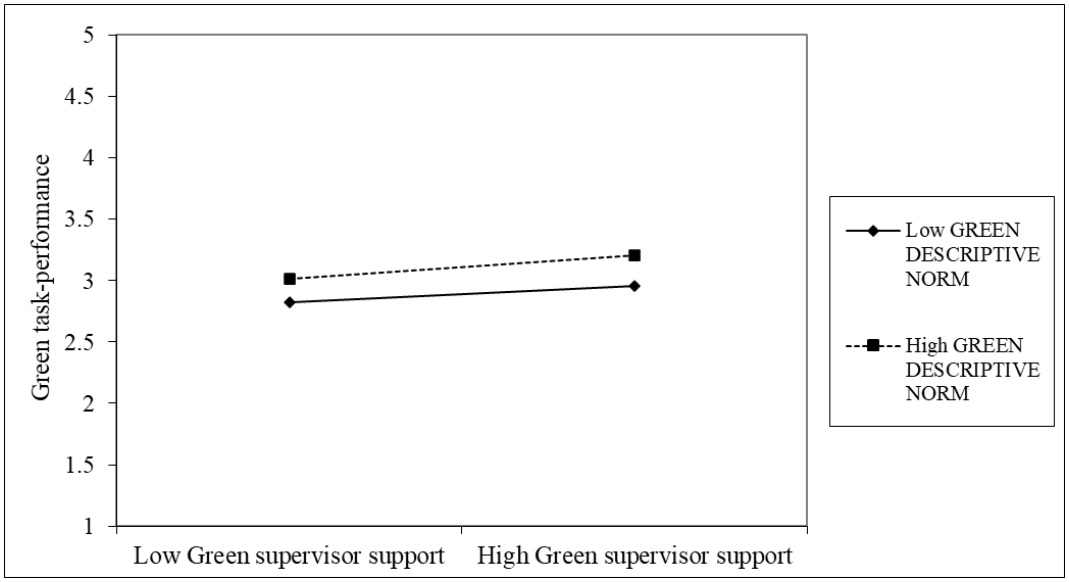

Figure 3: Moderating Effect of Green Descriptive Norms on The Indirect Relationship between Green Supervisor Support and Green Task-Performance through Green Self-Efficacy and Green Creativity (H6)

4.4 Endogeneity Assessment

Addressing potential endogeneity is essential in structural equation modeling, particularly when the aim is to draw valid inferences regarding hypothesized causal relationships. When predictor variables and the error term in a regression equation are associated, endogeneity occurs, which may lead to skewed or inconsistent parameter estimations. To guarantee the robustness of the findings and the integrity of the model, a variety of techniques were used to test for and minimize endogeneity.

One first technique for resolving endogeneity is the inclusion of control variables that may account for unobserved heterogeneity or omitted variable bias, as recommended by Hult et al. (2018). Gender and tenure were included as control variables in this study because of their proven value in the literature on organisational behaviour and green performance. These demographic characteristics were included in the model to see if they had any discernible impact on Green Task Performance (GTP). The research showed that neither control variable had a statistically significant impact on GTP, as shown in Table 5, indicating that they did not obscure the main structural linkages.

By using the Gaussian copula approach, which has been suggested as a diagnostic and remedial tool for endogeneity within the PLS-SEM framework, we went beyond the conventional inclusion of control variables and instead used a more rigorous approach designed for the context of variance-based SEM (Hult et al., 2018; Becker et al., 2022). When non-experimental data is utilised and instrumental factors are hard to find or justify, this method is especially helpful.

The first step in using the Gaussian copula method was to check for non-normality in the predictor variables, as per the procedure described by Becker et al. (2022). Cramér-von Mises tests were performed on the latent composite scores to achieve this. The findings showed p-values below the 0.05 cutoff, indicating a substantial departure from normalcy in the independent variables' distribution. For the Gaussian copula correction to be valid, this non-normality criterion must be met.

Gaussian copulas were subsequently created for each independent variable suspected of having a potential correlation with the error term in the prediction of GTP, having met the non-normality condition. These copulas were then introduced into the model as additional predictors of GTP. If any of the Gaussian copula terms were found to be statistically significant, it would indicate that the corresponding independent variable suffers from endogeneity. However, as summarized in Table VI, none of the Gaussian copula terms reached statistical significance. This result suggests that the independent variables in the model are not endogenous with respect to the error term of GTP. Hence, the concern of endogeneity bias is effectively ruled out.

Taken together, the findings from both the control variable analysis and the Gaussian copula technique confirm that the structural model estimates are not distorted by endogeneity. These diagnostic checks enhance the credibility of the model's causal inferences and further strengthen the validity of the study's theoretical conclusions.

Table 6: Gaussian Copula Results on GTP

Variable	**Model 1** Copula in GSS→GTP		**Model 2** Copula in GSE→GTP		**Model 3** Copula in GC→GTP		**Model 4** Copula in ALL PATHS	
	Value	p-value	Value	p-value	Value	p-value	Value	p-value
Copula GSS	0.098	0.724					0.120	0.652
Copula GSE			0.062	0.242			0.068	0.189
Copula GC					-0.030	0.611	-0.039	0.485

Notes: GSS= Green supervisor support; GSE= Green self-efficacy; GC= Green creativity; GTP= Green task-performance. Gaussian copula values based on a bootstrapping procedure of 10,000 subsamples and a two-tailed distribution.

Chapter 5

DISCUSSION AND IMPLICATIONS

This chapter provides an in-depth interpretation of the empirical findings in line with the conceptual framework and theoretical construct of this study. This chapter seeks to situate the findings of the study within the larger literature on green behavior, leadership, self-efficacy, creativity, and social norms in the hotel industry.

This chapter utilizes the theoretical lenses of Organizational Support Theory (Eisenberger et al., 2002), Conservation of Resources Theory (Hobfoll, 2001), Social Cognitive Theory (Bandura, 2001), Social Learning Theory (Bandura, 1977), and the Theory of Individual Creative Action (Ford, 1996) to shed light on the mechanisms that drives the relationship between green supervisor support and green employee behavioral outcomes.

The chapter is organized around the key relationships tested in the structural model: the direct, indirect effects and sequential indirect effect of Green Supervisor Support (GSS) on Green Task Performance (GTP), consequently employing the mediating roles of Green Self-Efficacy (GSE) and Green Creativity (GC), and also the moderating influence of Green Descriptive Norms (GDN).

5.1 Discussion

The outcomes of this study highlight the importance of green supervisor support (GSS) in influencing employee green performance. Precisely, the direct link between GSS and GTP was positive and statistically significant. This finding supports the theoretical statements of Organisational Support Theory (OST) (Eisenberger et al., 2002), which holds that employees respond to perceived organisational and supervisory support by engaging in activities that match with organisational goals.

Similar to earlier research (e.g., Paillé et al., 2022; Raineri & Paillé, 2016; Robertson & Barling, 2013; Luu, 2020), our findings highlight the role of direct supervisors as key agents in influencing employees' sustainability-focused actions. Hence, when managers actively support sustainability projects or goals by providing encouragement, care, resources, recognition, and feedback, this signals a sign of company concern and involvement to the employee. This perceived support triggers a reciprocal response in employees, which drives them to "give back" to the firm by aligning their behaviours with organisational ideals (such as sustainability). In other words, when employees believe their immediate supervisors are sincerely committed to the environmental vision, they respond by participating more frequently and proactively, subsequently elevating their green-related behaviour (Afsar et al., 2020).

Nonetheless, the uniqueness of the hospitality context, the emerging economic context and the application of the supervisor support in the context green green-related support give a new perspective and broaden the application of OST. This affirms its explanatory power beyond traditional organisational outcomes like job satisfaction or

commitment, into environmentally focused behaviours such as green task performance.

Secondly, this study confirms Green Self-Efficacy's (GSE) critical mediating role between GSS and GTP, which closely aligns with the theoretical propositions of Social Cognitive Theory (SCT) (Bandura, 2001). Hence, the significant mediation effect established for GSE in the relationship between GSS and GTP reveals that employees who receive supportive sustainability-focused signals from their supervisors experience heightened confidence in their ability to engage successfully in pro-environmental behaviours.

Additionally, this perceived signal translates directly into tangible improvements in their actual environmental-related task performance. These findings give empirical support for SCT's central proposition, which states that individuals' views of their efficacy are an important cognitive and motivational route via which external support influences performance outcomes (Bandura, 2001; Mensah et al., 2023). These findings confirm that employees' self-beliefs regarding green-related tasks represent a critical psychological resource that supervisors can strategically cultivate through their behaviours (Zhang, & Wang, 2021).

Furthermore, the study emphasises supervisors' encouraging behaviours as especially powerful psychological levers, since hospitality workers frequently have to strike a balance between environmental activities and onerous customer service responsibilities. Employees may feel more prepared to incorporate sustainability into their everyday tasks if supervisors actively acknowledge and support sustainable practices, since they may also lessen uncertainty and foster a sense of competence. In

these kinds of situations, supervisors' explicit and ongoing demonstrations of support for sustainability can act as a critical psychological buffer, assisting employees in overcoming possible self-doubt or perceived impediments to engaging effectively in environmentally friendly practices.

This aspect notably enriches existing theoretical frameworks by demonstrating how supervisor behaviours in hospitality contexts uniquely enhance the enactment of SCT mechanisms, where employee confidence is critical for achieving organisational sustainability goals. Therefore, this study contributes to the theoretical debate by demonstrating that supervisor support really improves employees' psychological preparedness and actual implementation of green practices in operationally demanding hospitality environments, going beyond merely promoting sustainable ideals.

Contrary to initial expectations, the result of this study did not support Green Creativity as a mediator in the relationship between Green Supervisor Support and Green Task Performance. This unexpected outcome markedly contrasts with the broader literature emphasising creativity as a fundamental mechanism driving sustainability-oriented behaviours and innovative environmental practices (Siqueira & Pitassi, 2016; Souto, 2022; Alshammari & Alshammari, 2023; Farrukh et al., 2024). The deviation from previous studies implies a significant boundary condition for the accepted theoretical premise that supportive leadership necessarily enhances creativity. A likely explanation for this disparity might be attributed to the hotel industry's unique operating characteristics, which usually feature standardised procedures and organised task routines. Employees in such situations may face actual restrictions in their capacity to take spontaneous, inventive, and creative sustainability activities in the absence of previous psychological empowerment or motivational reinforcement.

Essentially, while hospitality organisations increasingly emphasise sustainability, the inherent nature of standardised service delivery may unintentionally curtail opportunities for individual-level creative engagement unless actively facilitated through psychological mechanisms like enhanced self-efficacy or intrinsic motivation.

Furthermore, the unexpected null mediation finding via GC highlights the need for more sophisticated conceptualisation and assessment methodologies tailored to creativity in highly organised, service-intensive situations. Existing conceptions of green creativity may be excessively broad, unable to capture the varied creative behaviours possible within hospitality's practical reality. For example, hospitality personnel may exhibit their creativity through incremental process changes or novel guest engagement tactics that standard measurements fail to identify effectively.

As a result, this study makes a distinctive theoretical contribution by demonstrating how the nature of innovation in standardised, customer-focused organisations may differ fundamentally from the larger concepts utilised in general management and sustainability literature. This finding encourages future researchers to critically reconsider and refine the concept of green creativity to better reflect the unique characteristics of the hospitality industry, enriching theoretical frameworks and improving practical applicability in contexts where explicit operational constraints shape employee behaviour.

Importantly, the findings demonstrated the sequential mediation mechanism of GSS impacting GTP via GSE and GC. our findings show that GSS first boosts employee self-efficacy, which leads to increased creativity and, eventually, improved job performance. This sequential mediation constitutes a significant theoretical leap,

emphasising the importance of complex connections between cognitive and creative processes in sustaining employee behaviour. Thus, rather than separate psychological states, successful long-term performance develops from integrated psychological mechanisms that integrate many cognitive and motivational components, offering significant new insights to established theoretical frameworks.

This complex psychological sequence demonstrates that the motivational belief in one's capacity (GSE) must be activated before creativity can emerge as a productive behavioural outcome. Self-efficacy acts as a cognitive launchpad, facilitating the shift from intention to ideation and, eventually, execution. This sequential dynamic is especially important in highly organised and service-oriented areas like hospitality, where employee choice is frequently constrained. Employees are unlikely to engage in green innovation unless they have confidence in their abilities to do so (Fazal-e-Hasan et al., 2023). As a result, GSS serves as both an antecedent and amplifier of this dual psychological route, allowing employees to feel capable and inspired while eventually embracing environmentally friendly behaviour in the workplace.

Furthermore, our study emphasises the critical moderating effect of Green Descriptive Norms, demonstrating that normative working environments considerably amplify both the direct and indirect paths proposed in our model. Particularly, the existence of strong descriptive norms, or shared beliefs of how coworkers normally behave in sustainability-related situations, was found to considerably strengthen the association between Green Supervisor Support and Green Self-Efficacy. This discovery is consistent with the key concepts of Social Learning Theory (Bandura, 1977), which holds that individuals acquire and reinforce behaviours through both direct teaching and observational learning in their social context. In this scenario, when workers work

in contexts where pro-environmental behaviours are consistently practised and clearly supported by peers and supervisors, they are more likely to internalise and respond to supervisory sustainability cues with increased confidence and motivation. The visual and behavioural reinforcement offered by peer standards appears to act as a catalyst, accelerating the absorption of supervisor-led sustainability messaging.

Furthermore, this research contributes to extant theoretical debate by emphasising the role of context-sensitive mechanisms in behavioural enactment processes. The findings indicate that the success of green leadership behaviours is influenced not just by the leader's actions, but also by the larger social and normative environment in which those acts occur. In hospitality environments, where workers commonly work in groups and rely on peer cues to negotiate service dynamics, the visibility of sustainable practices among colleagues appears to legitimate and stimulate individual reactions to supervisor support. Thus, this study contributes to a more complex view of green behaviour creation by emphasising that normative alignment in the workplace acts not only as a background condition, but also as an active moderator capable of boosting motivational pathways from leadership to performance.

The empirical examination of moderated mediation mechanisms, including GDN, GSE, and GC, further distinguishes this study. Specifically, by clarifying how social context and cognitive empowerment work together to promote innovative environmental behaviours, the proven moderated serial mediation route adds theoretical significance to both the SLT and SCT frameworks. This integrated interaction of effectiveness beliefs, normative influences, and creativity, especially in hospitality settings has not been thoroughly examined in previous studies. Thus, this study makes a unique contribution by providing empirical support for multi-stage

psychological mechanisms that are theoretically integrative and drive workplace sustainability outcomes.

Finally, a crucial theoretical distinction is highlighted by the rejection of the mediating role of GC and the confirmation of serial GC mediation. Our findings suggest that although creativity is a key element of environmental innovation, it needs self-efficacy as an initial psychological catalyst in order to be triggered and have practical significance in sustainability situations. Particularly in controlled and service-oriented environments like hospitality, this subtle discovery expands the theoretical definition of creativity as reliant on underlying psychological resources. Therefore, our findings highlight a theme that has been underemphasized in previous literature: creativity is essentially dependent on motivational empowerment.

5.2 Theoretical Implications

This dissertation makes several theoretical contributions to our understanding of sustainability-oriented behaviour in the hospitality industry, particularly by combining perspectives from Social Cognitive Theory (Bandura, 2001), Social Learning Theory (Bandura, 1977), and Conservation of Resources Theory (Hobfoll, 2001).

First, this study empirically validates the mediating role of Green Self-Efficacy in the relationship between Green Supervisor Support and Green Task Performance. this study offers a significant theoretical advancement to Social Cognitive Theory (SCT; Bandura, 2001). SCT emphasises the importance of self-efficacy as a cognitive belief that influences how people think, feel, and behave. Our findings corroborate this concept while also moving the idea further by demonstrating how self-efficacy in the

context of sustainability is more than just an internal conviction, but is actively fostered through constant and visible support from immediate supervisors.

Particularly, when supervisors serve as role models for environmental stewardship and they continue to strengthen sustainability objectives through advice, feedback, and encouragement, consequently leading to employees internalising these behaviours as normal and achievable. Over time, this kind of encouragement and supervisor support strengthens employees' confidence in their ability to carry out ecologically friendly actions. This is essential, especially in the face of operational demands and regular routines prevalent in hospitality environments. Additionally, Green Self-Efficacy arises as a cognitive bridge which serves as a psychological conversion process that converts leadership signals into perceived personal capacity. Hence, employees now view sustainability as something achievable and pertinent within the context of their everyday tasks rather than as an impersonal, top-down corporate objective. Deeper engagement and performance-oriented behaviour are encouraged by this shift from external observation to internal belief.

Furthermore, the study demonstrates that this internalisation process does not occur in isolation rather, it takes place in a dynamic, socially created setting in which supervisor conduct serves as both a motivator and a practical guide for eco-friendly behaviour. In this regard, GSE's mediating function reveals how leadership support creates a psychological state that enables staff to negotiate and adapt sustainability goals to the complicated and unpredictable nature of frontline service tasks.

As a result, our work broadens SCT by providing a contextual refinement in operationally intense and emotionally demanding industries such as hospitality, self-

efficacy activation becomes a critical psychological mechanism that enables sustainability programs to transition from policy to practice. Employees go from passive receivers of environmental goals to confident actors capable of moving these goals forward. The study not only supports SCT's cognitive assumptions, but also enhances its application by embedding it in service personnel' daily experiences, revealing how externally modelled leadership behaviours are internalised and turned into task-level green action.

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This perspective responds to long-standing calls within the creativity and motivation literature for more layered and temporally sensitive models of work behaviour (Amabile & Pratt, 2016). The findings contradict the popular view that creativity is a spontaneous or natural employee feature, demonstrating that it frequently needs a core psychological condition, namely, conviction in one's own power to impact change in sustainability conditions. When employees see their managers as supportive of green projects, they develop a sense of competence and environmental agency. This cognitive affirmation, based on self-efficacy, creates the psychological space required

for risk-taking, idea production, and the development of creative, environmentally friendly solutions all of which are hallmarks of Green Creativity.

According to the study, GC alone cannot transform leadership support into performance benefits unless it is preceded by a sense of self-belief. Without GSE's motivating drive, employees may lack the confidence to act on their ideas, leading to creative stasis despite attractive leadership conditions. This sheds light on an important, but often missed, prerequisite for creativity in regulated, service-driven environments such as hospitality, where conventional operating procedures and client expectations frequently limit discretionary action. Through the description of this sequential relationship, the study highlights the supporting role of self-efficacy in releasing creative potential. this is very important in systems where environmental innovation and service reliability must coexist.

Additionally, the study adds a layered and integrated perspective to existing theoretical frameworks through empirically establishing that cognitive and creative states are not just co-occurring events, but they are interdependent stages in a larger psychological process. By offering a process-oriented perspective, it enhances the understanding of sustainability behaviours as developments in capability influenced by cognitive confidence and creative activation, rather than merely as outcomes of leadership influence. In doing so, it expands the scope of Social Cognitive Theory and creativity theory. This broadened perspective enhances our theoretical understanding of GC and elucidates its operational necessities, positioning self-efficacy as a crucial motivational precursor in sustainability-oriented performance models.

Third, the identification of Green Descriptive Norms (GDN) as an important moderator in the connection between Green Supervisor Support (GSS) and Green Self-Efficacy (GSE), along with its downstream effects, provides a valuable expansion of Social Learning Theory (SLT; Bandura, 1977). The findings imply that in work environments where colleagues visibly engage in and promote eco-friendly actions, the impact of sustainability messaging from supervisors is significantly amplified. This reinforces a foundational premise of SLT: individuals are more likely to internalise modelled behaviours when those behaviours are validated by the social environment. However, this study deepens that proposition by illustrating that such validation is not only observational but normative—it becomes a signal of what is acceptable, expected, and valued within a group.

In this sense, GDN operates as a social amplifier, enhancing the internalisation of green behaviours through perceived consensus. Employees working in environments where sustainability practices are common among colleagues are more inclined to interpret their supervisor's pro-environmental stance as credible, normative, and actionable. This perception strengthens their belief in their capacity to perform green tasks effectively (i.e., GSE), thereby reinforcing the pathway toward higher Green Task Performance (GTP). Importantly, this finding implies that leadership behaviours, no matter how well-intentioned or strategically aligned, do not exert influence in a vacuum. Instead, their impact is co-constructed within the broader normative context, shaped by what employees see their peers doing and how aligned those actions are with formal directives.

This insight is particularly salient in sectors like hospitality, where much of the social learning occurs informally through observation, interaction, and shared routines rather

than explicit instruction. In such dynamic, customer-facing environments, peer influence can serve as a powerful cue for behavioural alignment, particularly in areas such as environmental sustainability, where practices are often discretionary and not rigidly enforced. By empirically validating the moderating role of GDN, the study contributes a contextual nuance to SLT by foregrounding the role of normative salience, not just behavioural modelling, as a condition for effective learning and behaviour change.

Fourth, the rejection of Green Creativity (GC) as a standalone mediator, contrasted with its affirmation within a sequential pathway involving Green Self-Efficacy (GSE), offers a compelling theoretical refinement regarding the contingent nature of creativity in organisational contexts. This nuanced finding challenges the prevailing assumption that creativity, as a singular psychological construct, can independently translate leadership cues into tangible performance outcomes. Instead, the results underscore that creativity operates not in isolation but in conjunction with upstream motivational enablers particularly the belief in one's capacity to act (i.e., self-efficacy). In doing so, the study introduces a critical boundary condition to existing leadership-creativity models, revealing that GC's mediating role is conditional upon prior psychological activation.

Theoretically, this insight resonates with and extends the logic of the Theory of Individual Creative Action (Ford, 1996), which posits that creativity emerges from the dynamic interplay between motivation, cognition, and action. Our findings suggest that in hospitality environments, where service routines are often highly structured and performance expectations are tightly coupled with customer satisfaction, creativity requires a foundational sense of self-belief to become operational. Without this

cognitive and motivational grounding, even well-intentioned creative impulses may fail to gain traction, let alone translate into performance.

Moreover, this study repositions creativity as a "dependent mediator" a psychological process that becomes functional only when preceded by empowering states such as self-efficacy. This layered understanding of creativity contradicts oversimplified models that treat it as a universally accessible trait or spontaneous output of leadership influence. The current study demonstrates that creativity in sustainability contexts must be both facilitated (via leadership modeling and self-efficacy) and invigorated (through perceived agency and task relevance) to effectively connect to performance. At its core, creativity is not a fixed or automatic channel; it demands careful psychological support to operate effectively.

This sequencing of leadership support efficacy and creativity performance provides a new structural pathway that deepens theoretical insights into the construction of sustainable behaviour in operationally intensive, emotionally demanding, and highly interactive sectors such as hospitality. It implies that promoting sustainability involves creating the appropriate psychological conditions in the correct sequence, rather than simply encouraging innovation or prioritising new ideas. In this context, creativity is seen as a transitional state that requires internal conviction beforehand and task-oriented execution afterwards.

This study promotes theoretical pluralism in sustainability and leadership research by utilizing and combining various theoretical perspectives, including Social Cognitive Theory (Bandura, 2001), Social Learning Theory (Bandura, 1977), Conservation of Resources Theory (Hobfoll, 1989), and the Theory of Individual Creative Action

(Ford, 1996). The model developed and tested in this dissertation provides a composite understanding of how cognitive appraisals, motivational resources, normative environments, and creative processes converge to shape pro-environmental outcomes, rather than limiting the interpretation of employee behavior to a single theoretical lens. By doing this, it surpasses overly linear or reductionist explanations of green behaviour and mirrors the inherently multifaceted nature of psychological functioning in complex work environments.

This pluralistic approach, in theory, answers the persistent demands in the literature on organisational behaviour and sustainability for integrative models that encompass the complexity of human motivation and behaviour (Amabile & Pratt, 2016; Deci et al., 2017). As an illustration, the utilization of Social Cognitive Theory clarified the impact of leadership behaviors on green task performance via the development of personal agency and self-efficacy. Meanwhile, by incorporating Social Learning Theory, these leader-employee dynamics were placed within a wider social framework, emphasising that the existence of visible green norms among peers can either enhance or limit the impact of leadership. Together, these insights highlight the importance of both personal cognition and social modelling in encouraging sustainability-related behaviours.

When viewed as a whole, this integrated framework offers a more thorough basis for theorising about green leadership and employee-driven sustainability. It motivates researchers to abandon isolated constructs for multidimensional perspectives that mirror the interactive, layered realities of organisational life. Especially in industries such as hospitality where sustainability must be realized through direct service interactions theoretical models need to consider not only what drives employees, but

also how, when, and under which circumstances that drive translates into action. This dissertation makes a significant contribution to that agenda by proposing a cross-theoretical architecture that is validated by empirical evidence and rooted in the real-world complexities of service work.

5.3 Practical Implications

This study's findings provide a number of actionable insights for practitioners, especially for frontline managers, HR professionals, and sustainability leaders in the hospitality industry who are aiming to integrate sustainability more thoroughly into daily employee behaviour and organisational performance. First, the steady backing for both the direct and indirect effects of Green Supervisor Support (GSS) on Green Task Performance (GTP) highlights the crucial influence frontline supervisors have on employee sustainability behaviours. These individuals are more than mere conduits for policy implementation; they act as dynamic psychological catalysts that activate employees' internal resources, especially Green Self-Efficacy (GSE) and Green Creativity (GC), which are essential for consistent environmental performance. This discovery necessitates a basic reconceptualisation of supervisory roles, shifting them from compliance enforcers to behavioural facilitators of sustainable action.

This indicates that it is essential for HR practitioners and managers to reevaluate the curricula they use for developing leaders. It is important for training programs to include behavioural leadership modules that instruct supervisors on how to demonstrate pro-environmental values through everyday micro-behaviours, promote supportive communication that encourages psychological safety, and connect team tasks with larger sustainability goals, rather than focusing solely on traditional technical and compliance-oriented content. For example, modules could feature role-

playing exercises in which managers rehearse how to react positively to employees' sustainability proposals, or training on giving feedback that prioritises support above correction concerning environmental initiatives.

Furthermore, organisations ought to adopt 360-degree performance evaluations for supervisors that assess them based on business metrics as well as their perceived supportiveness of sustainability. This can be gauged through subordinate surveys evaluating the frequency and sincerity of pro-environmental encouragement. Supervisors who achieve high scores can be acknowledged formally, whereas those who do not meet expectations can be given targeted coaching. This performance-feedback loop would help establish a culture where sustainability-focused leadership is institutionalised rather than incidental.

These findings suggest to policymakers and industry regulators the potential for regulatory frameworks and accreditation systems that include leadership behaviour as a criterion for assessing organisational sustainability. Although much of the existing regulatory focus is directed at outcomes (e.g., carbon footprint, energy use), as this study shows, behavioural inputs at the supervisory level are equally important. Agencies could test voluntary certifications called the "Green Leadership Index," which acknowledge hospitality businesses that incorporate sustainability into both their operational procedures and their human resource leadership practices. These recognitions could be associated with incentives like tax breaks or qualifications for green tourism grants.

Hospitality educators and training consultants can seize the opportunity to create tailored microcredential programs centred on "Sustainability-Enabled Supervision."

These brief, skill-oriented certifications can be made available online or through collaborations with industry associations, offering accessible upskilling opportunities for both current and aspiring supervisors. The content would encompass techniques for psychological enabling, norm reinforcement, and emotional engagement to enhance the alignment of frontline leadership with organisational sustainability objectives.

Secondly, the validation of Green Self-Efficacy (GSE) as a vital mediating factor linking Green Supervisor Support (GSS) and Green Task Performance (GTP) underscores the importance of employee confidence in promoting effective environmental actions in hospitality environments. This discovery underscores a significant strategic change for hospitality companies: instead of depending exclusively on sustainability messaging from leadership or campaigns aimed at raising environmental awareness, businesses should commit to practical, psychologically empowering experiences that foster true capacity and confidence in one's competence to carry out eco-friendly actions.

This entails incorporating experiential learning methods into sustainability education for training managers and learning & development specialists. It is recommended to supplement conventional seminars or e-learning modules with practical interventions that provide employees the opportunity to experiment, solve problems, and achieve success in actual or simulated green tasks. For instance, green shadowing initiatives in which junior employees accompany seasoned eco-champions can promote informal knowledge sharing and enhance modelling effects. Likewise, peer-led learning circles that promote reflective dialogue and collaborative problem-solving on environmental

initiatives can bolster perceived mastery through social reinforcement and vicarious experience, in line with the mechanisms described in Social Cognitive Theory.

Another promising tool involves the establishment of gamified sustainability challenges, in which employees earn points, badges, or tangible rewards for successfully completing green tasks like minimising waste in their department or suggesting eco-efficient solutions. Programs can be developed at the level of departments or units, with friendly competition promoting involvement and bolstering feelings of competence and accomplishment. Such initiatives must be specific to roles and grounded in the relevant context, customised to the actual conditions of front desk, kitchen, housekeeping, or event operations, so that self-efficacy is connected to daily responsibilities rather than being purely theoretical.

Third, the validation of a sequential mediation pathway in which Green Supervisor Support Boosts Green Self-Efficacy, which then triggers Green Creativity and results in Green Task Performance, offers a practical blueprint for designing multi-phase sustainability interventions in hospitality organisations. This discovery transcends the current dependence on disjointed or singular initiatives (such as one-off training sessions and innovation contests) and advocates for a methodical, stratified approach that corresponds with employees' psychological development from confidence-building to creative output.

This means that operations and sustainability managers must create interventions that develop in scaffolded stages, with each stage aimed at a specific psychological state. During the first phase, the emphasis should be on training for supervisory modelling that guides managers in sustainability protocols as well as in clear and supportive

actions that convey alignment with values and promote trust. To send consistent normative cues to their teams, these supervisors must be seen actively engaging in green practices such as waste segregation, energy-saving initiatives, or sustainable vendor selection.

In the second phase, the focus should be on fostering self-efficacy through immersive, task-oriented learning. Employees can test out environmentally friendly behaviors in low-risk environments through interactive workshops, job-embedded green simulations, and hands-on process improvements. These experiences foster the conviction that environmentally friendly practices are both achievable and personally manageable in their respective operational roles, be it in housekeeping, food and beverage service, or front desk operations.

The introduction of creative activation in the third phase should only occur once cognitive readiness has been established. At this stage, one might consider establishing employee-run innovation labs, eco-focused idea hackathons, or incentivized problem-solving forums in which teams suggest new sustainability initiatives customized to their specific functional areas. These creative platforms mustn't be isolated competitions, but rather the result of a developmental process that has already built both the confidence and competence to innovate.

Fourth, the validation of Green Descriptive Norms (GDN) as an important moderator in the model highlights the essential impact of peer influence and visible group culture on strengthening behaviors aimed at sustainability. Although modeling leadership and individual motivation are significant, this finding shows that the social environment in which employees work can greatly enhance or reduce the effectiveness of those

factors. Ultimately, sustainability cannot be maintained solely through top-down influence; it must be socially enacted and reinforced informally among employee peer groups to bring about lasting change.

This requires hospitality managers and sustainability officers to consciously foster a green team culture in which environmentally responsible actions are demonstrated by leadership, made evident, incentivised, and integrated into routine interactions among colleagues. Actions like minimising food waste, cutting down on water use, and promoting linen reuse among guests become viewed as the norm when employees observe their coworkers regularly engaging in such sustainable practices. This is in accordance with the mechanisms proposed by Social Learning Theory (Bandura, 1977), which posits that behaviours are adopted not merely through observation of authority figures, but through their validation and repetition by peers within one's immediate reference group.

Initiatives that can be acted upon may consist of establishing sustainability dashboards that operate in real time and are situated in staff areas. These dashboards would show metrics related to energy conservation, recycling rates, or green service successes at the level of individual teams. These public exhibitions can cultivate a sense of healthy rivalry and shared ownership. Additionally, peer-nominated "eco-ambassador" programs that allow employees to recognize and honor colleagues showing outstanding environmental initiative can help integrate green norms naturally into the organizational culture. Peer-driven recognition, in contrast to top-down awards, is more authentic and plays a role in the social spread of positive behaviours.

In the end, embedding sustainability into the informal social norms of the workplace shifts it from a management directive to a collective behavioral expectation. When pro-environmental behaviors are perceived as a standard practice, employees' intrinsic alignment increases and the impact of leadership grows significantly. This method engenders enduring change and guarantees the continuation of eco-friendly values beyond the tenure of any individual leader or project, thereby nurturing a more robust and self-sustaining organisational culture.

5.4 Limitations and Future Research

Despite the valuable insights offered by this study, several limitations should be acknowledged. These limitations do not detract from the validity of the findings but rather illuminate opportunities for deeper exploration and model refinement in future research. First, although the study employed a time-lagged design to minimise common method bias and improve internal validity, the data remain correlational in nature. As such, causal inferences between Green Supervisor Support (GSS), psychological mechanisms, and Green Task Performance (GTP) should be interpreted with caution. While bootstrapping and mediation analyses offer robust statistical inference, they do not fully substitute for experimental or longitudinal research designs. Future studies could adopt a multi-wave longitudinal approach or quasi-experimental interventions to more rigorously establish temporal precedence and causality among the constructs, particularly in real-world hospitality operations where behavioral change unfolds over time.

Second, the study focused on the hospitality sector within a specific national context, and while this provides rich, sector-specific insights, it may limit the generalizability of findings to other industries or cultural environments. The hospitality sector is

uniquely characterised by high service intensity, standardised processes, and emotional labour, all of which may influence the observed relationships differently compared to, for instance, manufacturing, technology, or healthcare. Future research should replicate and extend this model in diverse sectors and geographic regions, allowing for comparative insights into how industry-specific dynamics or cultural dimensions (e.g., power distance, individualism–collectivism) shape the pathways between leadership, self-efficacy, creativity, and performance.

Third, while the study incorporated a theoretically rich model grounded in Social Cognitive Theory, Social Learning Theory, and Conservation of Resources Theory, it primarily focused on individual-level psychological processes. This analytical lens provides clarity but may overlook the collective, team-based, or organisational structural factors that influence sustainability behaviour in complex service environments. For example, team-level green climate, cross-functional collaboration, or the presence of sustainability champions at middle-management levels may significantly moderate or mediate the influence of GSS on employee outcomes. Future studies could therefore adopt multi-level modelling techniques to examine how leadership signals and psychological mechanisms interact with group-level dynamics or broader organisational infrastructure.

Fourth, the measurement of Green Creativity, while based on validated scales, may require further conceptual refinement within hospitality settings. Given the structured and procedural nature of service delivery, creative actions may not always manifest in easily observable or traditional forms. Employees may engage in micro-innovations, such as process tweaks, guest interaction strategies, or behind-the-scenes efficiency improvements that existing creativity measures may not fully capture. Future research

could pursue qualitative investigations, such as interviews or diary studies, to better articulate and contextualise what green creativity looks like in front-line service roles, thereby informing more nuanced quantitative measures.

Lastly, while the study examined the moderating role of Green Descriptive Norms (GDN), other potential boundary conditions and contingency variables were not included in the model. Factors such as leadership trustworthiness, organisational justice, or perceived environmental support may further clarify the strength or direction of observed relationships. Additionally, individual difference variables such as pro-environmental values, moral identity, or trait creativity may interact with GSS and the mediators to produce richer outcomes. Thus, future research should explore moderated mediation models that incorporate these variables to deepen understanding of the interplay between person, context, and behaviour in the sustainability-performance nexus.

Chapter 6

CONCLUSION

6.1 Conclusion

This dissertation set out to explore the psychological and contextual mechanisms through which Green Supervisor Support influences Green Task Performance in the hospitality sector. Drawing upon an integrated theoretical framework anchored in Social Cognitive Theory, Social Learning Theory, and Conservation of Resources Theory, the study examined the mediating roles of Green Self-Efficacy and Green Creativity (GC), as well as the moderating role of Green Descriptive Norms. Through a time-lagged empirical investigation, the study provides a nuanced understanding of how sustainability-focused leadership behaviours shape employee cognition, motivation, and performance in complex, service-oriented environments.

The findings offer compelling evidence that GSS has a direct and positive influence on GTP and that this effect is substantially enhanced through the mediating role of GSE. This affirms the central proposition of Social Cognitive Theory: when employees observe and internalise supportive behaviours modelled by supervisors, they develop stronger beliefs in their own capabilities, which in turn catalyse performance-related outcomes. Furthermore, the validation of a sequential mediation pathway whereby GSS fosters GSE, which activates GC, and subsequently enhances GTP adds theoretical refinement by demonstrating the interdependence of cognitive and creative states in shaping sustained environmental behaviour.

Contrary to expectations, GC did not emerge as a significant standalone mediator between GSS and GTP. However, its role within a serial mediation pathway signals that creativity requires a preceding psychological catalyst, in this case, self-efficacy, to be meaningfully mobilised in structured, operationally intensive contexts like hospitality. This insight challenges assumptions of creativity as an independent driver and introduces the notion of psychological sequencing as a critical precondition for green innovation.

The study also underscores the vital role of contextual moderators in shaping behavioural outcomes. Specifically, Green Descriptive Norms were found to amplify both direct and mediated effects of GSS, suggesting that leadership influence is not enacted in isolation but is significantly strengthened in environments where sustainability is visible and socially endorsed. This finding contributes to the broader literature on social learning and behavioural contagion by highlighting the importance of normative salience in facilitating organisational change.

Taken together, the study advances the theoretical discourse on green leadership by introducing a layered, psychologically grounded model that captures the dynamic interplay between supervisory behaviour, individual cognition, workplace norms, and task performance. The results underscore that effective sustainability initiatives in hospitality must go beyond policy mandates to engage with the everyday experiences, beliefs, and motivations of frontline employees.

Practically, the findings offer actionable pathways for hospitality managers, policymakers, and sustainability leaders aiming to embed green behaviours into the organisational fabric. From supervisor training and efficacy-building interventions to

the cultivation of green peer norms, the study outlines a comprehensive roadmap for fostering a culture of environmental responsibility that is both psychologically empowering and operationally effective.

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