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Conservation of resources for sustainable performance in tourism

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ABSTRACT

This study aims to examine the impact of green purchasing, waste management, eco-friendly design of products and services, and customer relationship management on sustainable performance in the South Asian tourism industry. The contemporary tourism and hospitality industry increasingly focuses on environmental sustainability. The tourism sector is considered to contribute significantly to the economy. It allows employment and generates economic profits, resulting in an increase in overall economic activity. This study used deductive and quantitative approaches to evaluate the research hypotheses. Data was gathered from 463 tourism-related businesses situated across diverse locations in Pakistan. This study discovered that green purchasing has a significant impact on sustainable performance. Similarly, waste management, eco-friendly design of products and services, and customer relationship management all had a significant impact on sustainable performance. This research presents a framework that highlights the practices of tourism businesses in attaining sustainable performance, utilizing the Conservation of Resources (COR) theory for support. The inclusion of COR theory in examining variables related to sustainable performance is considered a unique and pioneering contribution to interdisciplinary fields such as supply chain management and the tourism industry. Furthermore, this study is the first of its kind in the South Asian region, specifically in Pakistan.

Contribution/Originality: The inclusion of Conservation of Resources (COR) theory in examining variables related to sustainable performance is considered a unique and pioneering contribution to interdisciplinary fields such as supply chain management and the tourism industry. Furthermore, the study is the first of its kind in the South Asian region.

1. INTRODUCTION

The contemporary tourism and hospitality industry is increasingly focused on environmental sustainability, encompassing green purchasing, waste management, eco-friendly design, customer relationship management, and sustainable performance. The tourism sector is considered to contribute significantly to the economy. It creates employment and generates economic profits, resulting in an increase in overall economic activity. The tourism industry is fiercely competitive. Global companies are entering new markets, intensifying local competition due to

globalization. Customers are increasingly demanding sustainable and hygienic food products and services, reflecting a growing desire for natural and eco-friendly options (Adriana, 2009; Baloch & Rashid, 2022; Modica, Altinay, Farmaki, Gursoy, & Zenga, 2020). One way to achieve sustainable success is through Green Supply Chain Management (GSCM). This transparent and strategic approach integrates a business's environmental, social, and economic goals with internal processes to ensure long-term performance for both the company and its supply chain partners (Albhirat et al., 2024).

GSCM requires collaboration with stakeholders like distributors and suppliers. By implementing sustainable practices and green solutions in transportation and manufacturing, businesses can save money and optimize operations. Research by Miroshnychenko, Barontini, and Testa (2017) confirms that environmental responsibility is a key component of sustainable development, with a strong focus on ecological sustainability. Companies are increasingly adopting green practices to lessen their environmental impact and improve their financial performance (Miroshnychenko et al., 2017; Wang, Chen, Lee, & Tsai, 2013).

The findings from the previous research help identify a significant role of tourism businesses in a region's overall economic development and growth. Globalization has led to an increase in overall competition within the global context. Local businesses cannot effectively compete with international businesses based on their size and focused strategic and sustainable practices. The studies show a need to focus on sustainability through green supply chain management (GSCM). It can improve operational efficiency, positively impact cost reduction and customer satisfaction, and enhance a business's reputation. While the previous literature acknowledges waste management as a significant issue in tourism destinations, there is a need for more profound research to understand the specific challenges, best practices, and solutions in this area. Similarly, Nekmahmud, Ramkissoon, and Fekete-Farkas (2022) focused on European tourists' sustainable consumption values and choice behavior regarding green products. However, there is a lack of comprehensive studies that include non-European tourist industries, limiting the generalizability of the findings. Despite the evidence of the impact of green experience in the context of green hotels, (Yu, Li, & Jai, 2017) suggest that further research is necessary to investigate the relationship across a wider range of tourism businesses and customer segments. Ibnou-Laaroussi, Rjoub, and Wong (2020) found that understanding tourists' perceptions and reactions towards climate change and greenhouse gas emissions, and their influence on environmentally responsible tourism behavior, requires more extensive research to develop a comprehensive understanding of the factors influencing sustainable performance in the tourism industry. The issue centers on the necessity of addressing these gaps and challenges in order to enhance knowledge and practices concerning green purchasing, waste management, eco-friendly design of products and services, customer relationship management, and sustainable performance in the tourism industry in the South Asian region. Based on the problem and purpose of the research, the following question will seek an answer from this empirical research:

RQ: To what extent do the GSCM practices influence the performance of the tourism industry in South Asia?

Following the introduction, section 2 delves into the theoretical foundations and comprehensively examines pertinent literature. Section 3 elaborates on the methodology utilized. The examination and assessment of the structural model are subsequently carried out in section 4. Lastly, section 5 wraps up with discussions, implications for research, constraints, and suggestions.

2. LITERATURE REVIEW

2.1. Conservation of Resources (COR) Theory

The Conservation of Resources (COR) theory is a stress theory that describes the motivation driving humans to maintain their current resources and acquire new ones. According to this theory, individuals strive to protect and build resources in three domains: personal, social, and structural. Personal resources refer to internal characteristics, social resources refer to external resources from social networks, and structural resources refer to tangible resources. The theory posits that the loss of resources is more stressful than the gain, implying that

individuals may be more motivated to prevent resource loss than to acquire new resources. COR theory has been widely applied in various domains, including occupational stress, burnout, health, and well-being. The theory posits that the potential or actual loss of valued resources poses a threat to individual (Egozi Farkash, Lahad, Hobfoll, Leykin, & Aharonson-Daniel, 2022). The theory has practical implications for interventions and prevention programs, suggesting that promoting resource building and protection may improve well-being and sustainable performance.

The Conservation of Resources (COR) theory can be linked to Green Supply Chain Management (GSCM) and performance by emphasizing resource conservation and integrating environmental thinking into supply chain practices. GSCM involves a comprehensive perspective, including green purchasing, waste management, eco-friendly product design, material sourcing and selection, manufacturing processes, delivery of final products to consumers, and end-of-life management of products, all of which align with the resource conservation aspect of the COR theory (Nelson, Marsillac, & Rao, 2012). Furthermore, we can view GSCM practices as a tool for safeguarding and enhancing resources within the framework of environmental sustainability. For instance, GSCM strategic formulation and implementation can be seen as a way to protect and enhance environmental resources, in line with the COR theory's emphasis on resource protection and acquisition (Chin, Tat, & Sulaiman, 2015). Therefore, the COR theory provides a theoretical framework for understanding the motivations behind GSCM practices and their potential impact on resource conservation and sustainability.

2.2. Green Supply Chain Management Practices and Sustainable Performance

The literature review focuses on offering better insight based on the research questions. Therefore, the focus on highlighting the previous research focusing on determining the impact of green purchasing, waste management, eco-friendly design of products and services, and maintenance of effective customer relationships is discussed with a focus on sustainable performance in the tourism industry.

Green supply chain management (GSCM) practices significantly impact sustainable performance in the tourism industry. Several studies have highlighted the importance of GSCM in the context of the hotel and tourism sectors. Researchers have identified GSCM practices, including green manufacturing, green purchasing, cooperation with customers, eco-design, waste management, and green information systems, as crucial factors for enhancing sustainability tourism (Ahmad, Ikram, Rehan, & Ahmad, 2022; Alreahi, Bujdosó, Dávid, & Gyenge, 2023). These practices aim to reduce environmental impact by addressing air emissions, solid waste, effluent waste, and other harmful materials. The adoption of GSCM in the tourism sector contributes to long-term business value. It addresses the environmental consequences of industry activities, making it essential for improving competitiveness and sustainability performance (Ahmad et al., 2022). The literature emphasizes the positive impact of GSCM practices on sustainability performance in the tourism industry, making them a vital consideration for businesses seeking to improve their environmental footprint and long-term viability (Ahmad et al., 2022). Therefore, integrating GSCM practices is crucial for promoting environmental sustainability and enhancing the overall performance of the tourism industry.

Moreover, the factor known as “green purchasing” plays a vibrant role in ensuring sustainable and effective planning towards long-term, workable solutions. Research studies help understand that businesses must effectively maintain internal management practices and policies to support organizations' performance. The effectiveness is critical as it allows businesses to overcome internal and external factors and challenges (Khan & Qianli, 2017). According to Khan and Qianli (2017) the focus on maintaining environmental strategies leads to increased investments that do not significantly add to the profits and performance of the business. The other studies show the significant importance of environmental strategies, and in the current dynamic and competitive corporate environment, they cannot be ignored. A study by Desire, Mulyungi, and Ismail (2019) helps raise awareness regarding the relevance of green purchasing. According to the researchers, a significant positive and inclining trend

for sustainable business is noticeable, enhancing the overall long-term performance. The term green purchasing is linked to purchasing and procuring sustainable products and raw materials; the effective development of green products is also included in green purchasing. Businesses find that organizations play a more significant and vital role in limiting environmental impact (Bassi, Christensen, & Damgaard, 2017). The literature also recognizes the relevance of green purchasing for enhanced customer satisfaction. Therefore, businesses are more likely to achieve a better and more competitive market position, which can lead to improvements in performance (Schmidt, Laner, Van Eygen, & Stanisavljevic, 2020). Therefore, the following hypotheses are proposed:

H_1: Green purchasing significantly and positively influences the sustainable performance in the tourism industry.

The relevance of GSCM is essential for businesses to limit waste and effectively maintain brand awareness and reputation. The relevance of waste management activities and initiatives for manufacturing and servicing businesses is primarily discussed to impact economic profits positively. The overall quality improvement of products and services is also witnessed and evident in the literature (Bassi et al., 2017). Scholarly research further underscores the positive increase in business efficiency and relative productivity. Businesses can effectively navigate the global and local competitive landscape, leading to higher performance. Effective management and control can be further enhanced by efficiently carrying out waste management activities. Research indicates that we must avoid waste products and other potentially harmful environmental items, and implement strict policies and monitoring to prevent their spread. Businesses with dynamic and ever-changing customer and corporate needs must efficiently fulfil environmental, social, and economic goals and objectives. Businesses effective use of waste management activity positively impacts productivity, efficiency, and business growth (Schmidt et al., 2020). The focus on maintaining effective waste management can increase quantity as less raw material is wasted and the quality of products for businesses, which is supposed to increase the possibility of growth or future profits. The company's internal and external stakeholders expect the business to progress smoothly and focus more on achieving higher environmental outcomes.

The study by Kamarulzaman, Hussin, Abdullah, and AbdRahman (2018) helps to identify that the effectiveness of waste management by businesses can contribute positively to productivity and higher performance (Kamarulzaman et al., 2018). Waste reduction can facilitate internal efficiency and improve processes. Further, Agyabeng-Mensah, Ahenkorah, Afum, Dacosta, and Tian (2020) emphasize that business management must oversee and prioritize the upkeep of product and service quality at a heightened efficiency level. Research conducted by Trivellas, Malindretos, and Reklitis (2020) underscores the importance of maintaining consistent operations to address quality concerns. Furthermore, the study suggests that maintaining consistency in supply chain processes can enhance efficiency, consistency, and customer satisfaction. Hence, the following hypothesis is proposed:

H_2: Waste management significantly and positively influences sustainable performance.

Business management is required to be proactive and consider eco-friendly design as a significant concern that has a direct impact on customers and other stakeholders. Establishing a highly competitive business environment and enhancing overall competitiveness through the application of eco-friendly designs is crucial (Rashid, Ali, Rasheed, Amirah, & Ngah, 2022a). Research shows that due to the significant environmental impact of combustion, businesses, including all current manufacturing businesses, emerged with a motive to limit the environmental impact. The improved environmental protection with due efficiency can be considered the most efficient shift of businesses towards eco-friendly design. The eco-friendly product or service designs and other features have helped decrease the impact of human-related environmental challenges and enhance overall sustainability (Rashid, Rasheed, Amirah, & Afthanorhan, 2022b; You, Sonne, & Ok, 2020). We anticipate businesses to effectively address waste reduction, carbon emissions, and the use of fossil fuels through targeted policies and stringent regulations. These measures aim to promote higher levels of efficiency and tangible improvements in environmental impact. Thus, the following hypotheses are proposed:

H_3: Eco-friendly product and service designs significantly and positively influence sustainable performance.

Similarly, the emphasis placed by businesses on Corporate Social Responsibility (CSR) and the implementation of sustainable supply chain initiatives is widely regarded as paramount (Firat, 2019; You et al., 2020). Additionally, Soltani, Zareie, Milani, and Navimipour (2018) underscore that Customer Relationship Management (CRM) aids businesses in maintaining a strong focus on strategies aimed at enhancing customer satisfaction and sustaining competitiveness (Rashid & Rasheed, 2024). Enhanced customer satisfaction primarily manifests as economic gains, boosted revenues, and positive word-of-mouth, providing a competitive edge (Rashid & Rasheed, 2023; Soltani et al., 2018). The integration of new technologies and online customer interactions has a favorable impact on supply chain outcomes, leading to enhanced processes and greater efficiency (Rashid et al., 2024c; Soltani et al., 2018). Heightened competitiveness has compelled firms to more adeptly engage with customers, gain insights into their preferences and requirements, and consequently offer more personalized products and services. Afterwards, the focus on continuous improvements is also considered critical, as changes in customer behaviour and requirements are noticeable. Research highlights the critical role of customer feedback in building a long-term relationship between a company and its customers. There is a higher probability that firms can effectively meet and further improve the quality of their products with consistent feedback (Foltean, Trif, & Tuleu, 2019; Rasheed, Rashid, Amirah, & Afthanorhan, 2023). Previous research suggests a positive impact of effective CRM on the performance of firms (Firat, 2019). The main objective for businesses is to ensure that product development and improvements are based on customer feedback and requirements. Hence, the following hypotheses are proposed:

H_n: Customer Relationship Management (CRM) significantly and positively influences the sustainable performance.

2.3. Empirical Reviews

Several empirical inquiries have delved into the ramifications of Green Supply Chain Management (GSCM) practices on sustainable performance in the tourism sector, exemplified by the study titled "Green Supply Chain Management in the Hotel Industry: A Systematic Review." This research systematically evaluates GSCM practices within the hotel industry, underscoring their pivotal role not only in hospitality but also in the broader hotel sector. The study underscores the importance of GSCM practices in augmenting sustainable performance within hotels (Alreahi et al., 2023). Another investigation conducted by Ahmad et al. (2022) titled "Going Green: Impact of Green Supply Chain Management Practices on Sustainability Performance" explores the influence of five GSCM factors (green manufacturing, green purchases, customer collaboration, eco-design, and green information systems) on sustainability performance. The findings elucidate that green manufacturing, green purchases, eco-design, and green information systems exert a significant and positive impact on organizational sustainability performance. Likewise, a study on "green supply chain management practices and destination image: evidence from Vietnam tourism industry." proposes a structural equation model to examine the relationships among factors such as internal awareness, suppliers' pressure, customers' awareness, and sustainable performance in the tourism industry. The findings provide evidence of the impact of GSCM practices on destination image and sustainable performance within the tourism sector (Do, Nguyen, Nguyen, Le, & Trinh, 2020). These empirical studies collectively demonstrate the positive impact of GSCM practices on sustainability performance in the tourism industry, highlighting the importance of adopting green practices to enhance environmental sustainability and long-term performance benefits. Figure 1 illustrates the study's research framework.

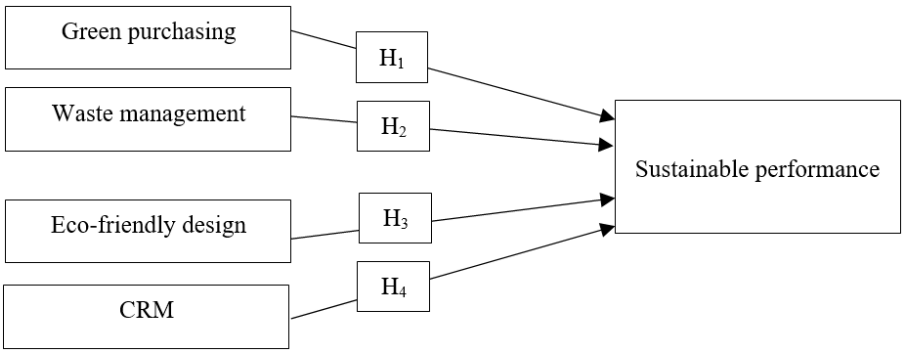

Figure 1. Research framework.

3. RESEARCH METHODOLOGY

A deductive approach leads to a quantitative method with data collection through a questionnaire (Hashmi, Amirah, Yusof, & Zaliha, 2021). This enables us to prove the theory by using numeric data and hypothesis testing. The current research is explanatory, as it explains the theoretical concepts and empirical findings (Khan, Rashid, Rasheed, & Amirah, 2023a; Rasheed et al., 2023). Further, a causal research design allows for recognizing the relationships between the variables. Therefore, we used a causal research design to conduct hypothesis testing and generate numerical results, allowing the identification of the causation results between the variables (Khan, Rashid, Benhamed, Rasheed, & Huma, 2023b; Rasheed & Rashid, 2023). The literature on study variables provides a foundation for understanding the interplay between these constructs. The research design aligns with the theoretical and empirical focus on the relationship between study variables. To investigate the study constructs, the existing literature supports using a quantitative-deductive approach and a casual research design.

3.1. Unit of Analysis and Sampling Strategy

This research has applied organizational units of analysis as it helps the researcher target employees working in organizations based on their knowledge-based criteria that can help the researcher generate a logical conclusion (Rashid, Amirah, Yusof, & Mohd, 2020). The target population comprised managers, supervisors, and owners engaged in supply chain tasks within the tourism sector, specifically within Pakistan's restaurants, hotels, motels, and guest houses (one respondent from one business).

Rashid et al. (2022a) suggest that the complexity of a model influences the minimum required sample size for a study. Models with greater complexity, characterized by more predictors, necessitate larger sample sizes. Building upon the guidelines proposed by Gefen, Rigdon, and Straub (2011) which advocate for a power of 0.8, a medium effect size, and $\alpha = 0.05$, a study utilizing a model with one predictor would require a minimum of 126 samples to test the research model adequately. However, we avoided this method due to its low sample size determination and potential generalizability issues. In contrast, the sample size was determined using the below equation:

The sample size (n) is calculated according to the formula: $n = z^2 * p * (1 - p) / e^2$.

Where: $z = 1.96$ *for a confidence level* (α) *of 95%,* p = *proportion (expressed as a decimal),* e = *margin of error.*

$z = 1.96$, $p = 0.5$, $e = 0.05$.

$n = 1.96^2 * 0.5 * (1 - 0.5) / 0.05^2$.

$n = 0.9604 / 0.0025 = 384.16$.

$n \approx 385$.

The sample size is equal to 385.

Because the study has 463 respondents (more than 385), it confirms that the sample size is sufficient to test the hypothesis. The research utilized a non-probability sampling method for several reasons, including challenges in obtaining a comprehensive sampling frame, limited published data, and unclear total counts of tourism-related businesses. Consequently, a non-probability purposive sampling approach was adopted to gather data, considering

individuals with deeper insights into supply chain operations, aligning with the study's focus on supply chain constructs. This sampling approach allows participants to be selected based on the researcher's assumptions. The focus is to ask the questions of participants who are effectively able to answer them, and therefore, more focused and reliable outcomes can be derived from the study. We deemed this sampling method appropriate for testing the proposed theoretical effects. The study distributed questionnaires to 1430 potential respondents, accompanied by a professionally crafted email outlining the survey's importance and critical terms. Biweekly reminders were sent to encourage participation, resulting in 463 responses from the 1430 requests, equating to a response rate of 32.38%.

3.1.1. Measurement Scale

In this research, a questionnaire instrument was selected for data collection, primarily for its capability to gather numeric data. The design of this instrument incorporates close-ended questions about the research variables, facilitating the collection of a relatively large sample size (Hashmi, Amirah, & Yusof, 2020; Rashid et al., 2022b). The questionnaire employed a five-point Likert scale, ranging from "strongly disagree" to "strongly agree."

In this study, there are five variables, where "green purchasing," "customer relation management", and "eco-friendly design" borrowed fifteen items (five each) from Zhu and Sarkis (2004); these items were later used by Park, Kim, and Lee (2022). Likewise, "waste management" adopted five items from Coskun (2022) and "sustainable performance" took five items from Rashid, Rasheed, and Ngah (2024b) (Appendix presents all the adopted questionnaires). Pakistani experts in SCM carefully assessed the measurement items to guarantee their suitability for use in Pakistan, aligning with standards from various industries and nations. This validation process affirmed the reliability and relevance of our measurement items, structured into a survey questionnaire for distribution among tourism business firms in Pakistan.

4. DATA ANALYSIS

We conducted a pilot test with participants before initiating a comprehensive study to ensure there were no issues with the format, design, or wording of the questionnaire (Haque, Rashid, & Ahmed, 2021; Hashmi & Mohd, 2020). This pilot test ensures the research's smooth progression (Agha, Rashid, Rasheed, Khan, & Khan, 2021). The full-scale analysis included all items because all aspects of the questionnaire met the necessary criteria.

Following the methodology proposed by DeSimone, Harms, and DeSimone (2015) a four-step procedure was implemented for the screening and cleansing of data, comprising (1) analysis of missing values, (2) identification of out-of-range values, (3) detection of multivariate outliers, and (4) recognition of univariate outliers. Upon conducting frequency measures on the dataset consisting of 463 responses, no missing or out-of-range values were detected. We used the Z-Score analysis to identify the univariate outliers and found zero instances in the dataset. According to Tabachnick and Fidell (2007) Z-scores should typically fall between -3.29 to 3.29. Lastly, Mahalanobis distance (D2) was utilized to assess multivariate outliers, employing the recommended threshold of $D2 < 0.001$, which indicated the absence of multivariate outliers in the dataset. As a result, the subsequent data analysis phase included all 463 respondents.

Before doing descriptive statistics, reliability analysis, bivariate correlation, and an overall statistical model to test the hypothesis, this study also checked to see if the data were normal. Table 1 illustrates the skewness and kurtosis values falling within the acceptable range (Hair, Black, Babin, Anderson, & Tatham, 2010). The construct GP displays the highest skewness value of -0.57, with a Mean of 3.58 and Std. Dev. of 0.81, while the construct WM exhibits the lowest skewness value of 0.28 (Mean 3.53, Std. Dev. 0.60). The construct CRM demonstrates the highest kurtosis value of -0.48 (Mean 3.23, Std. Dev. 0.86), whereas the lowest kurtosis value of 0.06 is observed for construct GP. All results fall within an acceptable range of univariate normality (Hair et al., 2010). Additionally, the reliability test reveals satisfactory Cronbach's alpha values (>0.60) for all constructs (Alrazehi, Amirah, Emam, & Hashmi, 2021; Das et al., 2021). Table 1 also presents correlation results that adhere to the test assumptions and

range from 0.549 to 0.804 (Khan, Khalid, Zaman, José, & Ferreira, 2021).

Table 1. Descriptive analysis results.

Constructs	Mean	SD	A	Sk	Kr
GP	3.58	0.81	0.72	-0.57	-0.06
WM	3.53	0.60	0.70	-0.28	0.04
EFD	3.45	0.74	0.68	-0.40	-0.11
CRM	3.23	0.86	0.72	-0.41	-0.48
SP	3.55	0.57	0.65	-0.38	-0.18
Bivariate correlation test results					
Constructs	SP	GP	WM	EFD	CRM
SP	1.00				
GP	0.679	1.00			
WM	0.549	0.741	1.00		
EFD	0.723	0.747	0.736	1.00	
CRM	0.669	0.804	0.712	0.717	1.00

Note: SD = Standard deviation; α = Cronbach's alpha; Sk = Skewness, Kr = Kurtosis, GP = Green purchasing, WM = Waste management, EFD = Eco-friendly design, CRM = Customer relations management, SP = Sustainable performance.

4.1. Demographic Analysis

The results in Table 2 offer valuable insights into the demographics of the surveyed group. Regarding gender distribution, a notable majority identified as male (72.14%, 334), with females comprising a smaller percentage (27.86%, 129). Similarly, concerning age distribution, a significant portion, accounting for 36.5%, falls within the 20-25 age bracket, indicating a substantial presence of individuals in the early stages of their careers, likely accumulating more professional experience over time. The 26-30 age group constitutes 24.41% (113) of respondents, indicating a considerable portion in their late twenties. The 31-35 age range comprises 18.57% (86), reflecting a diverse workforce with mid-level experience. Individuals aged 36-40 make up 14.9% (69), suggesting a more minor yet significant presence of professionals with extensive experience. Those aged 41 and above represent 5.62%, indicating a smaller percentage in the higher age brackets.

Table 2. Demographic analysis (n=463).

Demographics	Attributes	Frequency	Per cent
Gender	Male	334	72.14
	Female	129	27.86
Age	20-25	169	36.5
	26-30	113	24.41
	31-35	86	18.57
	36-40	69	14.9
	41 and above	26	5.62
Education	High school	133	28.73
	Diploma	135	29.16
	Bachelor's	86	18.57
	Master	76	16.41
	Others	33	7.13
Experience	1-5 years	102	22.03
	6-10 years	127	27.43
	11-20 years	114	24.62
	21 years and above	120	25.92

Regarding education, respondents come from diverse backgrounds. High school graduates make up 28.73% (133), while those with a diploma constitute 29.16% (135), contributing to a skilled workforce. A significant majority, 18.57% (86), hold a bachelor's degree, highlighting a well-educated workforce. Those with a master's degree represent 16.41% (76), indicating a notable presence of individuals with advanced education. Additionally,

7.13% (33) fall into the "Others" category, demonstrating diverse educational qualifications beyond standard classifications. The distribution of experience underscores the diversity within the workforce. Professionals in the early stages of their careers, with 1-5 years of experience, make up 22.03% (102), while those with 6-10 years represent 27.43% (127), forming a varied mid-level experience cohort. Individuals with 11-20 years of experience comprise 24.62% (114), indicating a smaller yet significant group with extensive professional backgrounds. Respondents with 21 or more years of experience represent 25.92% (120), reflecting a significant and seasoned population segment.

4.2. Hypothesis Testing (H1, H2, H3, and H4)

IBM SPSS version 24, serving as a statistical tool, was utilized for analyzing the study hypotheses through regression analysis, with the findings presented in Table 3.

H1: GP has a significant impact on SP: The summarized outcomes indicate that the Adjusted R-square (0.457) associated with GP can account for 45.7% of the variance in SP, with a model error possibility of 0.417. The ANOVA and coefficient (standardized beta coefficient) results demonstrate the significant influence of GP on SP ($p < 0.001$) (Khan, Rasheed, Rashid, Abbas, & Mahboob, 2022). *The beta coefficient value signifies that a one-unit increase in GP leads to a positive increase of 0.679 units in SP. Therefore, hypothesis H1 is validated.*

H2: WM has a significant impact on SP: The adjusted R-square value (0.297) indicates that the predictor WM can account for 29.7% of the variance in SP, with a model error possibility of 0.475. The ANOVA and coefficient (standardized beta coefficient) results demonstrate the significant influence of WM on SP ($p < 0.001$). The beta coefficient suggests that a one-unit increase in WM results in a 0.549 unit increase in SP. Therefore, hypothesis H2 is validated.

H3: EFD significantly affects SP: The adjusted R-square (0.519) indicates that the predictor SCC can explain 52% of the variance in SP, with a model error possibility of 0.393. The ANOVA and coefficient (standardized beta coefficient) results indicate the significant influence of EFD on SP ($p < 0.001$) (Hashmi & Mohd, 2020). *The beta coefficient suggests that a one-unit increase in EFD leads to a 0.723-unit increase in SP. Therefore, hypothesis H3 is supported.*

H4: CRM has a significant impact on SP: The adjusted R-square (0.444) shows that the predictor CRM can explain 44% of the variance in SP, with a model error possibility of 0.422. The ANOVA and coefficient (standardized beta coefficient) results reveal the significant influence of CRM on SP ($p < 0.001$). The beta coefficient suggests that a one-unit increase in CRM results in a 0.669-unit increase in SP. Therefore, hypothesis H4 is affirmed.

Table 3. Regression analysis.

Hypotheses	Model summary			ANOVA		Coefficient		
Path	R	R^2	Std error of estimate	F	Sig.	Std. β	*t*	Sig.
H1: GP→SP	0.679	0.457	0.417	126.426	0.000	0.679	11.244	0.000
H2: WM→SP	0.549	0.297	0.475	63.934	0.000	0.549	7.996	0.000
H3: EFD→SP	0.723	0.519	0.393	161.728	0.000	0.723	12.717	0.000
H4: CRM→SP	0.669	0.444	0.422	120.084	0.000	0.669	10.958	0.000

5. DISCUSSION

The section delves into the findings derived from this research, with a focus on addressing research questions and examining how the results align with or diverge from prior studies. The analysis indicates that the environmentally conscious activities of businesses significantly influence sustainable performance. Specifically, it reveals that green purchasing (GP) has a noteworthy and positive impact on sustainable performance (SP). Moreover, past research supports the notion that the increasing adoption and implementation of green purchasing not only fosters sustainable procurement but also serves as a crucial step toward the production of environmentally friendly products and services within the tourism sector (Bassi et al., 2017). Additionally, scholars emphasize the role of green purchasing in enhancing customer satisfaction and its potential for yielding long-term competitive and

economic benefits (Schmidt et al., 2020). Furthermore, the discussion highlights a lack of awareness among respondents, including management personnel, regarding the benefits of green purchasing, indicating a need for heightened awareness among the general public and businesses alike. Previous research suggests that green purchasing stems from firm-level strategic planning, underscoring the need to effectively manage internal capabilities and efficacy towards sustainable procedures and processes (Khan, Dong, Zhang, & Khan, 2017). Moreover, another study underscores the significance of strategic green marketing orientation, green supply chain management (GSCM), and environmental concern in influencing green consumption behavior in the hospitality and tourism industries.

Furthermore, a comparative study European and non-European tourists sustainable consumption values and choice behavior regarding green products highlights the importance of understanding tourists' preferences for such products in the context of sustainable tourism (Nekmahmud et al., 2022).

The research findings indicate a significant and positive correlation between waste management (WM) and sustainable performance (SP). Notably, solid waste management emerges as a considerable concern in tourist destinations, with municipal waste generated by the hospitality sector posing a substantial sustainability challenge (Diaz-Farina, Díaz-Hernández, & Padrón-Fumero, 2023). Effective solid waste management is particularly critical for coastal and marine tourism cities, as it helps mitigate adverse environmental impacts and enhances the overall livability of urban areas (Abubakar et al., 2022; Tsai, Bui, Tseng, Lim, & Tan, 2021).

Prior studies emphasize the pivotal role of efficient waste management in achieving various sustainable development goals, including ensuring clean water and sanitation, fostering the creation of sustainable cities, mitigating climate change, and promoting sustainable consumption and production patterns (Abubakar et al., 2022). Furthermore, Abubakar et al. (2022) suggest that local governments should prioritize waste reduction, reuse, and recycling initiatives to advance the goals of a circular economy and sustainable development.

Similarly, the research findings reveal a significant and positive impact of eco-friendly design (EFD) on sustainable performance (SP). Previous studies have also corroborated these results, highlighting the role of eco-friendly products and services in enhancing sustainable performance (Kim, Kim, Choi, & Phetvaroon, 2019). Scholars argue that the adoption of improved and eco-friendly products and designs by businesses can lead to increased customer satisfaction and demand for their products and services (Firat, 2019; You et al., 2020).

Focusing on the eco-friendly product design allows businesses to utilize sustainable raw materials, which in turn attracts new customers and retain existing ones in the tourism sector (Firat, 2019; You et al., 2020). It is noteworthy that the relevance of eco-friendly design and products is increasingly recognized by Pakistani tourism businesses, although broader application across the industry is still necessary.

Furthermore, the results indicate that effective customer relationship management (CRM) significantly and positively impacts sustainable performance (SP) in tourism businesses.

These findings are in line with previous studies, which also underscore the importance of CRM in enhancing overall performance. Sarkis, Zhu, and Lai (2011), for instance, support this conclusion by highlighting that customer satisfaction can be enhanced through the effective application of a support system, leading to improved performance. Similarly, Schmidt et al. (2020) found that businesses need to adeptly manage customer relations to enhance overall performance.

5.1. Research Implications

5.1.1. Theoretical Implications

By developing an integrated model, this research significantly contributes to the body of literature on Conservation of Resources (COR) theory. In the context of the tourism industry, this implies that businesses and consumers will be motivated to engage in green purchasing behavior to conserve and build their resource base. This also translates to the need for sustainable waste management practices to preserve valuable resources and minimize

environmental impact. By designing facilities and services that minimize resource consumption and environmental impact, organizations can build and preserve their resource base. This means that businesses should focus on building and preserving long-term relationships with customers through sustainable and responsible practices. By prioritizing sustainability, businesses can preserve their resource base and contribute to the conservation of natural resources, ultimately enhancing their long-term performance.

5.1.2. Managerial Implications

For managers and practitioners, this research suggests that businesses in the tourism industry should prioritize green purchasing practices to align with consumer values and enhance sustainable performance. This involves procuring environmentally friendly products and services, which can lead to cost reduction, increased performance, and an improved corporate image. Similarly, implementing effective waste management strategies is crucial for tourism destinations and hospitality businesses. By investing in sustainable waste management practices to mitigate environmental impact, policymakers can contribute to sustainable development goals (SDGs). Likewise, embracing eco-friendly design principles in the tourism industry can lead to improved resource efficiency, reduced environmental impact, and integrating eco-design practices into product development and production processes that enhance sustainability performance. Moreover, fostering positive customer relationships through sustainable practices is essential for long-term success in the tourism industry. By prioritizing green marketing strategies and environmental efficiency, business owners or managers can enhance customer loyalty, satisfaction, and corporate image. Lastly, prioritizing sustainable practices across green purchasing, waste management, eco-friendly design, and CRM is essential for achieving sustainable performance in the tourism industry. Organizations can use it for improved competitiveness, cost reduction, and enhanced brand reputation. Further, collaboration with local communities, government agencies, and environmental organizations is essential for the successful implementation of sustainable practices in the tourism industry. Organizations should engage stakeholders that can help address waste management challenges and support eco-friendly initiatives. Embracing green technologies and innovation is another way to achieve sustainable performance. Businesses should consider investing in renewable energy, energy-efficient systems, and waste reduction technologies to minimize environmental impact and resource consumption. Businesses should educate and engage consumers in sustainable practices that can have a significant impact on green purchasing and eco-friendly behaviors. Tourism businesses should focus on transparent communication, eco-labeling, and immersive experiences to promote environmental awareness among customers. Lastly, implementing robust monitoring and evaluation mechanisms is necessary to track the impact of green initiatives on sustainable performance. Regular assessments can help identify areas for improvement and ensure that the adopted practices align with long-term sustainability goals

5.2. Limitations and Recommendation for Future Research

The findings and implications of the research may be specific to certain geographical locations, types of tourism businesses, or consumer segments. Therefore, we should exercise caution when generalizing the results to a broader context. Research in the tourism industry often faces difficulties in data collection due to the diverse and dynamic nature of the sector. This can cause a potential biases and limitations in the research findings. Therefore, it should be considered while conducting the future research in the same area. Resource limitation, both in terms of financial investment and human capital, constrained the implementation of green practices and sustainable initiatives in the tourism industry in Pakistan. Therefore, it should be measured carefully in future research. The rapidly evolving nature of environmental regulations, consumer preferences, and technology in the tourism industry can pose a challenge to the relevance of the findings over time. Addressing these limitations through robust research methodologies, longitudinal studies, and interdisciplinary approaches can enhance the validity and applicability of research findings in the context of green practices and sustainable performance in the tourism industry.

Future research can investigate, the impact of green product and service innovation on sustainable performance, with a focus on the key factors proposed in the study, such as top management commitment, pollution prevention practices, and product stewardship practices. Expanding comparative studies on tourists' sustainable consumption values and choice behavior regarding green products to include non-European regions, will provide a more comprehensive understanding of green purchasing behavior across different tourist demographics. Further examination of how different framings of sustainability performance communication influence travelers' behavioral intentions, considering various contexts and tourist segments to provide insights into effective communication strategies for promoting sustainable practices in the tourism industry. By addressing these areas, future research can contribute to a deeper understanding of the factors influencing sustainable performance in the tourism industry and provide valuable insights for the development of effective green practices and policies.

5.3. Conclusion

In conclusion, the literature on green practices and sustainable performance in the tourism industry provides valuable insights into the interconnected nature of various factors, including green purchasing, waste management, eco-friendly design, customer relationship management, and their impact on sustainable performance. The Conservation of Resources (COR) theory offers a robust framework for understanding the importance of resource conservation in driving sustainable practices and performance within the industry. While the research has shed light on the significance of these factors, it is essential to acknowledge their limitations, such as generalizability, data collection challenges, and resource constraints. Moving forward, recommendations for integrated sustainability strategies, stakeholder collaboration, investment in green technologies, consumer education, and continuous monitoring and evaluation can guide tourism businesses towards more sustainable practices. Furthermore, future research could focus on areas such as the impact of green product and service innovation, sustainable solid-waste management in different tourism contexts, comparative studies on green purchase and sustainable consumption, and the effectiveness of environmental sustainability communication. By addressing these areas, future research can contribute to a deeper understanding of the factors influencing sustainable performance in the tourism industry and provide valuable insights for the development of effective green practices and policies.

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Appendix: Questionnaire.

Green Purchasing

Environmental audit for suppliers is carried out by businesses.

Internal management of green purchasing and compliance is considered important.

Suppliers with certifications are selected for the materials.

The suppliers are informed about the environmental objectives of the business.

The eco-labeling and effective packaging is carried out for the products offered.

Waste Management

The waste management system is well established.

We show commitment towards effective waste management practices.

Waste management practice prevent environmental pollution.

Recycling bins in my immediate surroundings, we separate my paper, glass, plastic, and glass waste.

If we reach the waste oil collection point in our vicinity, we deliver the waste oil we have accumulated.

Eco-Friendly Design

The products are developed with a focus on reduced energy and material consumption.

The focus on design for disassembly is essential for businesses.

Products are designed with motives of reuse and recycling.

The use of hazardous products and processes is avoided.

The life cycle assessment of the products and services is essential.

Customer Relation Managemen

Customers are informed about the focus of the businesses towards eco-designs and green purchasing.

The customers are contacted to gain feedback on green products and service development.

Customer feedback on waste management practices and service and product quality is ensured.

Clean and green products are introduced based on customer demands.

Customer feedback and opinions are essential for product improvements.

Sustainable Performance

Focus on lowering the cost of energy consumption.

Focus on reducing treatment and waste expulsion costs.

Focus on the reduction of penalties for violating environmental laws.

Establishing a partnership with many green suppliers.

Reducing the adverse impact of products and processes

on the local community.