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# Importance of Green Supply Chain Management in Hospitality Business



\*1 Researcher, Department of Business Administration, Iqra University, Karachi, Pakistan

**ABSTRACT** 

\*Corresponding Author Email: aliihamdan18@gmail.com

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#### 06 September 2022 Customers' rising demand for hygienic and susta

Customers' rising demand for hygienic and sustainable food products and increasing local and international competition in the hospitality industry have transformed the industry. The focus of the research study is to determine the existing position of the Pakistani hospitality industry and the relevance of Green Supply Chain Management (GSCM), and its impact on firm performance. The focus on the sustainable and green supply chain in the hospitality industry is a hot topic. Businesses can effectively manage the practices and procedures to achieve competitive advantage and economic benefits. The study incorporates a quantitative research design focused on deriving insights into the possible relationship and impact of the GSCM factors on the performance of Pakistani hospitality businesses. The sample size for the research is 150 participants, including people from management positions in different restaurants in Karachi, Pakistan. The findings from the research help to identify that GSCM is a critical part of a firm's strategic objective in Pakistan as the application of green purchasing, customer relationship management and eco-friendly product designs are found to have a weak to a moderate yet significant impact on the performance. The outcomes derived from the literature review help to identify that applying the policies related to mentioned factors helps offer a significant strong impact on businesses in the manufacturing and service industry. The results for the Pakistani industry show that waste management does not have any significant impact on performance which shows a contradictory outcome compared to the literature findings. The research also provides focused implications and future recommendations for businesses and research improvements.

Keywords: Sustainability, Tourism, Pakistan, Green purchasing, Waste management, Eco-friendly, CRM

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## **Importance of Green Supply Chain Management in Hospitality Business**

## 1. Introduction

The hospitality sector is considered to contribute significantly to the economy. It allows to offer employment and generates economic profits that lead to an increase in the overall economic activity. The industry is majorly competitive as global hospitality businesses are expanding to new markets that have resulted in to increase in the local competitive landscape due to globalization. The increasing demand for sustainable and hygienic food products and services is also found to expand in the current time as customers are willing to consume more natural and sustainable food products (Baloch & Rashid, 2022; Modica et al., 2020; Uddin, 2022; Ayaz, 2022). Green, also known as sustainable supply chain management, is found to be a transparent, strategic achievement through the integration of a business's environmental, social, and economic objectives with focused internal organizational processes to sustain long-term performance both for the firms as well as the partners in the supply chain (Alam, 2022; Asif, 2022; Marwad & Zagade, 2020). Green supply chain management requires businesses to ask the stakeholders, including distributors and suppliers, to effectively deliver the products in transportation, manufacturing, and adopting sustainable practices and green solutions to save money and optimize functioning. The research by Miroshnychenko et al. (2017) helps to identify that environmental responsibility for businesses is a significant part of sustainable development with a primary emphasis on ecological sustainability. Companies are attracted to adopting green practices to reduce the overall environmental impact and to effectively improve their financial performance (Miroshnychenko et al., 2017; Wang et al., 2013; Victory et al., 2022; Hunaid et al., 2022; Ali, 2022).

The previous research findings help identify a significant role of hospitality businesses in the overall economic development and growth of a region. Also, it is determined that overall competition within the global context has increased with increased globalization. Local businesses cannot effectively compete with international businesses based on their size and focused strategic and sustainable practices (Anwar, 2022; Amjad, 2022). The studies show a need to focus on sustainability and GSCM as it can not only lead to improved operational efficiency but a positive impact on cost reduction, customer satisfaction, and the ability to enhance a business's reputation. Businesses worldwide can avail of the mentioned benefits and compete more effectively globally. Local businesses must focus on adopting and effectively managing GSCM as it can fulfil the increased customer demands and effectively increase the chances of survival in the market (Basit, 2022; Muzammil, 2022; Rasheed, 2022). The focus of the study is to highlight the relevance of Green Supply Chain Management (GSCM) to the performance of the hospitality industry in Karachi, Pakistan.

## 1.1. Purpose of the Study

The main motive/ purpose of the study is to determine the importance of Green Supply Chain Management (GSCM) in the hospitality industry in Pakistan.

## 1.2. Research Questions

The research questions for the study are;

- a. To what extent does green purchasing influence firm performance?
- b. To what extent do waste management activities influence firm performance?
- c. To what extent do eco-friendly designs influence firm performance?
- d. To what extent does effective CRM influence firm performance?

### 2. Literature Review

### 2.1. Theories and Models

There are various viewpoints related to deriving the motivation for businesses to focus on Green Supply Chain Management for businesses. The "System Theory" theory put forward a narrative that the business is a combination of different and complex systems. It must ensure to align the activities and processes to optimize the system's output (Karanovic et al., 2021). Businesses must ensure that all the activities are performed and carried out using effective waste management, supply chain efficiency, and others to enhance customer relationships (Sucky et al., 2019).

The demand for sustainable and green practices is also an essential requirement from the stakeholders and majorly from the customers. The businesses are required to effectively ensure the business's prospects and activities to ensure the lowest level of negative or no impact is evident and long-term effective operations are maintained (Julong, 1989). On the other hand, the organization theory is found to be influenced by various disciplines and helps to highlight the role of balancing the different aspects of the supply chain (Hatch, 2006). The organizational theory allows the development of an understanding related to the management's focus on maintaining adequate progress toward green supply chain management to enhance overall outcomes for the business and attain higher customer satisfaction (Sarkis et al., 2011).

### 2.2. Empirical Justifications

The section allows the summary of past literature to understand how the subject has been discussed. The focus of the literature review is to offer better insight based on the research questions. Therefore, the focus on highlighting the previous research on determining the impact of green purchasing, waste management, eco-friendly design of products and services, and maintenance of effective customer relationships are discussed with a focus on the performance of businesses operating in the hospitality industry. The analysis of research studies helps to determine that the focus of businesses on maintaining effective supplier relationships in terms of efficient and quality raw products and supplies has witnessed an increasing trend. The factor known as "Green Purchasing" plays a vibrant role in ensuring sustainable and effective planning toward workable long-term solutions. Research studies help to understand that businesses are required to effectively maintain internal management practices and policies to support organizations' performance. The effectiveness is critical as it allows businesses to overcome possible internal and external factors and challenges (Khan et al., 2017). Criticisms are also highlighted for the support of sustainable practices as these are found to have a direct negative impact on the performance of businesses. According to Khan and Qianli (2017), the focus on maintaining environmental strategies leads to increased investments that do not majorly add to the profits/performance of the business (Khan & Qianli, 2017).

The other studies show the significant importance of environmental strategies, which cannot be ignored in the current dynamic and competitive corporate environment. A study by Desire et al. (2019) helps to raise awareness regarding the relevance of green purchasing as the researchers proclaim that significant positive and inclining trend for sustainable business is noticeable, which is beneficial to enhance the overall long-term performance (Desire et al., 2019). Green purchasing is linked to purchasing and procuring sustainable products and raw materials. The effective development of green products is also included in applying green purchasing. Organizations are found to contribute more positively to limiting environmental impact and are relatively more significant and vital for businesses focused on manufacturing (Bassi et al., 2017). The relevance of green purchasing for enhanced customer satisfaction is also recognized in the literature. Therefore, businesses are more likely to achieve a better and more competitive market position which can lead to improvements in performance (Schmidt et al., 2020).

The relevance of green supply chain management is essential for businesses to limit waste and effectively maintain higher brand awareness and reputation. The relevance of waste management

activities and initiatives for manufacturing and servicing businesses are discussed to impact economic profits positively. The overall quality improvement for products and services is also witnessed and evident in literature (Bassi et al., 2017). The scholarly research further helps to highlight that business' efficiency and relative productivity are also found to increase positively. The global and internal/local competitive landscape can be effectively dealt with, and higher performance can be achieved for businesses. Effective management and control can be further enhanced by efficiently carrying out waste management activities. Researchers show that waste products and others that can potentially harm the environment must be avoided and strict policies and monitoring must be carried out to limit the spread. Businesses with dynamic and ever-changing customer and corporate needs are required to efficiently fulfil the environmental, social, and economic goals and objectives. The effective utilization of waste management activities by businesses is also found to positively affect the business's productivity, efficiency, and 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 that are supposed to increase the possibility of growth/ future profits. The company's internal and external stakeholders expect the business to progress smoothly and focus more on achieving higher environmental outcomes.

Rashid and Rasheed (2022) argued that the effectiveness of waste management by businesses could contribute positively to productivity and higher performance. Waste reduction can facilitate internal efficiency and improve processes. Further, the management of businesses is required to more efficiently control and focus on maintaining a higher level of efficiency in maintaining product and service quality (Agyabeng-Mensah et al., 2020). A research study by Trivellas et al. (2020) helped to determine that consistency in operations is a must to fulfil quality issues and that the effectiveness of supply chain-related consistencies can lead to higher efficiency, consistency, and customer satisfaction (Trivellas et al., 2020). The research shows that focusing on environmental safety is a primary concern and objective for manufacturing businesses. This challenge and concern are gaining importance for all industries and businesses worldwide. The development of green purchasing and effective waste management has led to a relatively higher focus for businesses, not only for manufacturing businesses, to consider the use and application of eco-friendly product designs (Kim et al., 2019). The business's management must be proactive and consider the factor as a significant concern and directly impacting customers. Other stakeholders can be gained with effective management of product and service designs. Applying eco-friendly designs is also essential to establish a highly competitive business environment and is expected to enhance overall competitiveness.

Research shows that due to the significant environmental impact of combustion cars, businesses, including all current manufacturing businesses, and Tesla emerged with a motive to limit the environmental impact. The improved environment protection with due efficiency and afterwards electric cars can be considered the most efficient shift of businesses towards eco-friendly design. The eco-friendly product designs and other features have helped decrease the impact of human-related environmental challenges and enhance overall sustainability. The reduction of waste, carbon emission, and use of fossil fuels are expected to be efficiently managed by businesses with focused policies and strict rules and regulations to ensure that a higher level of efficiency and improvement can be evident. The focus of businesses on Corporate Social Responsibility (CSR) and practical, sustainable supply chain initiatives are considered most important (Firat, 2019; You et al., 2020). Research also helps to extract that consistency, and more sustainable business practices are required to most efficiently overcome and carry out long-term sustainability and other environmentally friendly objectives of the businesses (You et al., 2020). Furthermore, the research shows that "Customer Relationship Management", also referred to as CRM for businesses, is considered to play a vital role in improving the overall performance of the businesses. Soltani et al. (2018) help highlight that CRM is considered to help businesses stay more focused on approaches to improve customer satisfaction and remain highly competitive. The factor of competitiveness for businesses with higher customer satisfaction is majorly in the form of economic profits, increased revenues, and positive word of mouth (Soltani et al., 2018).

The application of new technologies and online customer interactions are found to positively affect supply chain outcomes and can lead to improved processes and efficient working (Soltani et al.,

2018). The increasing competitiveness has resulted in firms more effectively reaching customers. knowing about their preferences and needs, and further providing tailored products and services. Afterwards, the focus on continuous improvements is also considered critical as changes in customer behaviour, and requirements are noticeable. The relevance of customer feedback for businesses is highlighted in research as a critical part of developing a long-term relationship between the company and customers. There is a higher probability that firms can effectively meet and further improve the quality of the products with consistent feedback (Foltean et al., 2019). Research studies also help to determine the positive impact of effective customer relationship management and 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. The role of management is again considered critical for customer relationships as the management's interest is reflected in the CRM. The effective use of CRM can lead to improving customer and business engagement, effective development of long-term relationships, enhanced engagement, and improved CSR outputs (Alshura & Assuli, 2017). Customer relationship management for businesses is also termed and considered as a procedure to efficiently and effectively accomplish overall organizational objectives/ goals. It is also considered necessary to effectively spread awareness of the business's efforts towards sustainable practices to achieve customer attraction.

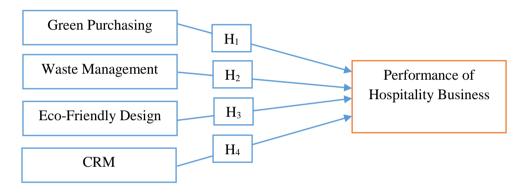


Figure 1: A research framework

## 2.3. Hypothesis

Based on the above-provided research framework, the following research hypothesis are provided. The research hypothesis for the study are;

 $H_1$ : Green purchasing significantly impacts the performance of hospitality businesses.

 $H_2$ : Waste management activities significantly impact performance.

 $H_3$ : Eco-Friendly product and service designs have a significant impact on performance.

*H*<sub>4</sub>: Customer Relationship Management (CRM) impacts performance.

#### 3. Research Method

The research methods section help to reflect and provide justifications for the methods applied to the research to accomplish the research objectives (Ragab & Arisha, 2018; Saunders et al., 2019). The focus is to provide a clear picture to the audience of how the data is to be collected, stored and processed to reach conclusions. The research approach selection includes the deductive or inductive research approach. The deductive approach is adopted for the study. This approach allows to derive research hypotheses based on existing theory and empirical justifications and carry out more systematic and comprehensive outcomes for the phenomenon, subject, and topic (Saunders et al., 2019). The study is devised based on the implications of GSCM in hospitality businesses therefore, previous research is summarized and findings from theoretical perspectives are identified. The different aspects of GSCM,

including waste management, green purchasing, eco-friendly design, and customer relationship management, are to be analyzed concerning the performance of the business. The initial insights about the interrelationship are discussed in the literature review, and hypotheses are developed to specify the direction and identify the possible outcomes.

## 3.2. Research Design

The research design in the methodology section reflects the overall plan devised to answer the research questions. The most suitable research design is identified so that a reliable and relevant study can be conducted. The cross-sectional research design is selected as it allows for selection and collects data from different individuals at a single point in time (Hashmi et al., 2020; Khan et al., 2022a, b, c; Spector, 2019). The researcher selects individuals, including managers, supervisors, and owners of different hospitality businesses, including (hotels and restaurants) in Karachi, Pakistan these people are inquired about the application of GSCM and its relevance for business performance. The significant benefits of adopting a cross-sectional research design are that it allows testing or approving/disapproving assumptions, is cost-effective, allows for the specification of the variables, and collects data from a variety of participants, and the data collected can be used for different research purposes.

## 3.3. Sampling Design

The sampling design reflects the procedure to define and select the sample size. It is considered a critical part of the research and allows to most efficiently reach conclusions (Hashmi et al., 2020a, b; Khan et al., 2021; Lohr, 2021). The focus of the research, as highlighted above, is to determine the impact of different GSCM factors on firm performance and participants, including individuals who are aware of the concepts, are to be selected to answer the questions (in the online questionnaire). The researcher, therefore, from the sample specifies the participants including managers, executives, supervisors, and owners of the businesses working in the hospitality industry. The research is to identify the impact of GSCM on firm performance. Therefore the sample includes professionals that can quickly answer the research questions from the organizational viewpoint. Also, the researcher focuses on businesses, including restaurants and hotels. The application of the purposive sampling technique is adopted; the sapling technique allows to specify of the participants based on the researcher's assumptions, including managers, supervisors, and owners of restaurants and hotels in Karachi. The focus is to ask questions from participants who can effectively answer them; therefore, more focused and reliable outcomes can be derived from the study. A sample size of 150 participants is selected to represent the outcomes for all the management personnel working in hospitality businesses in Pakistan (Rashid et al., 2021; Hashmi et al., 2020b; Hashmi et al., 2021a, b).

### 3.4. Data Collection

The data is collected using a survey questionnaire. Data collection allows for better identification of the overall procedure used by the researcher (Rashid et al., 2019). The researcher selects participants through visits to hotels and restaurants and informs the management about the motive and relevance of the subject and research. After their consent is gained, the link to the online questionnaire is provided to the management personnel. The data in numerical values were coded (5 scale Likert scale responses). The Likert scale chosen includes options 1-Strongly disagree, 2-Disagree, 3-Neutral, 4-Agree, and 5-Strongly agree (Rashid, 2016; Agha et al., 2021; Haque et al., 2021; Das et al., 2021; Alrazehi et al., 2021).

## 3.6. Statistical Technique

Using quantitative data sources allows the researcher to conduct a detailed statistical analysis using SPSS to test and answer the research hypothesis. The tests applied on SPSS include reliability statistics, frequency distribution, and regression analysis (Rashid & Amirah, 2017). All the tests are applied based on their effectiveness to assess and analyze the data and provide effective outcomes. The

focused statistical techniques were selected based on their relevance and ability to achieve the outcomes required by the researcher.

## 3.6.1. Reliability statistics

The application is vital as the responses and their overall reliability and validity are tested and presented (Hinton et al., 2014; Pallant, 2020). The researcher applies the initial test as the validity can be effectively identified from the test. The motive is to identify whether the responses collected present valid and consistent outcomes or not (Rashid et al., 2020).

## 3.6.2. Frequency distribution

The test allows assessing the frequencies/ summary of the significant data source, including responses from 150 participants. The motive is to present a summary of the data so that the audience knows the overall participation and outcomes in the form of tables and charts for respective questions (demographic and investigative questions) (Mills, 2014; Hinton et al., 2014).

## 3.6.3. Regression

The application of regression is made to ensure that the possible impact of the independent variables on the dependent variable is identified and presented to answer the research questions/ test the research hypothesis and reach conclusions (Kafle, 2019). The test is applied as it can effectively help determine the impact of the independent variables on the study's dependent variable (Hinton et al., 2014).

## 4. Results and Findings

### 4.1. Reliability Test

The importance of reliability tests for the survey questionnaire is essential. The understanding derived from the reliability test is vital to reflect the consistency and accuracy/ reliability of the responses collected by human participants. The reliability statistics for the current study are carried out for the total 150 responses collected for 25 items (questions five each for independent variables (CRM, Eco-friendly design, waste management, and green purchasing = 20) and five questions for performance (dependent variable). The value of Cronbach's Alpha is critical as it reflects the overall reliability of the responses. The results from the table show that a value of 0.898 is achieved which is greater than the standardized value of reliability (Cronbach's alpha) of .70 (Rashid & Rasheed, 2022; Ahmad & Ahmad, 2018). Therefore, it can be concluded that the reliability score identified/ evaluated reflects a higher reliability value and further assessment and analysis can be carried out.

### 4.2. Demographic Profiles

The demographic details for the respondents are tested under the frequency distribution to highlight the frequency and percentage value. The results for age helped to identify that 63 participants (majority) have ages between 31 and 35 years and 38 between 20 and 25 years. Furthermore, 27 participants were aged between 31 and 35, and 22 were above 36. The participation of male and female respondents in the questionnaire was effective as 78 males, whereas 72 female participants participated in the questionnaire. The research results show moderate to higher female inclusion in the hospitality industry. The participants taking part in the research have an excellent educational background, with 71 postgraduate degree holders, five graduates, and 25 with other qualifications/ degrees. Finally, results show that 21 participants have experience have ten years, 47 with 4 to 6 years of experience, 45 with 1 to 3 years, and 37 with experience between 7 and 9 years.

## **4.3.** Hypothesis Testing

The hypothesis of the research is tested using regression analysis. The performance of the hospitality businesses and the average of the related questions are treated as the dependent variable. In contrast, the independent variables for the study include green purchasing, waste management, eco-friendly designs, and customer relationship management. The motive is to derive insights regarding the impact of green purchasing, waste management, eco-friendly product design, and customer relationship on the performance of the hospitality industry. The outcomes from the research allow us to reach the outcomes better and better compare the results with existing literature.

Table 1: Regression outcomes

Variables	N	μ	St.	Model Summary		ANOVA		Coefficient		
			Dev							
				R	$\mathbb{R}^2$	F	Sig.	Std. Beta	T	Sig.
								Coefficient		
Green Purchasing		3.116	.566					236	2.314	.022
Waste Management		3.139	.562					158	-1.77	.079
Eco-Friendly	150	3.157	.524	.767	.589	51.855	.000	.529	5.46	.000
Design	130			.707	.369	31.633	.000			
CRM		3.175	.595					.229	2.520	.013
Performance		3.21	.567							

The regression output presented in table 1 illustrates the variables entered in the regression model. The independent variables presented under the "variables entered" our Customer Relationship Management (represented as CRM), Waste Management (WM), Eco-friendly Design (EFD), and Green Purchasing (GP). The model summary identified the relationship between the variables tested in the regression analysis. The value of R Square is critical and is reflected to be 0.589 (58.9%), which shows that the increase in independent variables or any one of them can influence the business's performance positively. The results, in other words, can be interpreted as the increase in CRM, WM, EFD, and GP for hospitality businesses is expected to have a positive impact meaning that the increase would result in improvements to the business performance. The significance value is interpreted to assess the significance of the relationship further. The results show that a 0.000 < 0.05. Based on the outcomes from the regression, the conclusion can be drawn that the increase in focus and activities, including customer relationship management, waste management, eco-friendly design for products, and green purchasing by the hospitality business, is expected to raise profitability and performance

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The coefficient values are interpreted to assess further the independent variables' separate relationship and impact on the dependent variable (performance). The focus of the interpretation is to test the research hypothesis. The outcomes from the table (Coefficients), including unstandardized coefficients B (Beta) and sig., are most important as Beta shows the degree of impact of the independent variables on the dependent variable, whereas the sig. It should be less than .05 to reflect a significant relationship between the variables. The results shown in the table help to identify that the independent variable GP (Green Purchasing) is found to have a significant (Sig. = .004) and weak positive impact on the performance of the hospitality businesses (Beta = .236 (23.6%)). Moreover, the research findings help to identify that waste management for hospitality businesses does not have any significant impact on the performance of the businesses (Sig. = .079 (i.e., greater than .05)). The Beta value shows a negative impact as -.158 value is reflected. The results can be interpreted that there is a negative weak yet insignificant impact of waste management practices on the performance of hospitality businesses.

EFD (Eco-friendly Design) outcomes help identify a moderate positive relationship, and the significance value of .000 is achieved. The results help to identify that the increase in the effective eco-friendly design of the products and services for hospitality businesses is likely to positively/ improve the performance of the hospitality businesses. The final hypothesis is to test whether CRM (Customer Relationship Management) significantly impacts the performance of businesses. The findings from the table (Coefficient values (from the regression table)) help to identify that the improvements in customer

relationship management by hospitality businesses are expected to positively and weakly lead to improvement in business performance. The increase in performance due to the increase in CRM activities and initiatives is found to be 22.9% (i.e., 0.229). The results from the regression analysis help to identify that the hypothesis is tested, and the respective answers/ results are provided in the table in the section below.

## **4.4.** Hypothesis Assessment Summary

The statistical analysis results focus on determining the effect of the independent variables on the dependent variable. The results are expected to provide better insights regarding the factors that are important for the Pakistani hospitality industry/ businesses and what must be done to improve the businesses' performance further. The results help to identify a significant and positive weak impact of Green Purchasing on the performance of hospitality businesses. The weak relationship signifies that in the future, more focused approaches to green purchasing by Pakistani hospitality businesses can be applied to define better and signify the outcomes. From the current perspective, it can be concluded that the alternate hypothesis (Hypothesis 1) is accepted.

The second hypothesis for the research is focused on determining the impact of waste management on the performance of hospitality businesses. The results from the statistical analysis (regression) show that the focus on increased waste management is found to have a negative, weak and insignificant impact on the performance of the hospitality industry. The results can lead to conclude that the alternate hypothesis for the study is rejected (i.e., Waste management activities significantly impact performance). The impact of the eco-friendly design of the products and services offered by the hospitality industry/ businesses is reflected to have a significant and moderate impact on the performance of the businesses. The results can lead to conclude that the firms are required to focus more on developing and designing eco-friendlier designs to better convey their focus on green supply chain management to the stakeholders and achieve better performance/ outcomes. It can be stated that Hypothesis 3 is accepted as a positive and moderate significant impact identified through the analysis. The last hypothesis deals with the determination of relevance and impact of customer relationship management in hospitality businesses and whether it impacts significantly on the performance of the businesses. The results show that the increase in customer relationship management can lead to a weak impact (22.9%) on increasing the performance of the businesses. The null hypothesis (Hypothesis 4) is accepted based on the results. The outcomes derived from the interpretation of the regression analysis are presented in the table below.

## 5. Conclusion

The focus of the research was effectively carried out using a detailed assessment of past literature and comparing it with the findings derived from quantitative analysis in the research. The focus of the quantitative research is to test the hypothesis and better understand how the GSCM and related activities in the Pakistani hospitality industry are found to impact the overall performance. The results help to identify a positive weak, and significant relationship between green purchasing and the performance of hospitality businesses. Furthermore, the results show that customer relationship management has a significant but weak impact on performance. The results derived from the past studies help to raise a concern that globally the application of green supply chain management in hospitality and other industries leads to an effective and strong impact on the performance of the businesses.

The findings from the study also show that waste management activities are not found to have a significant impact on performance which is contradictory to the primary research findings. Finally, the results help to identify that eco-friendly product designs are found to have a moderate impact on firm performance in hospitality businesses. The overall results can help to conclude that the importance of GSCM in Pakistani perspectives has shown a considerable increase as the professionals have highlighted and results have confirmed that the improvements in GSCM activities and initiatives for businesses lead to moderately impact the performance. Customer satisfaction is also raised in the

literature review to be a significant factor in why businesses focus on such initiatives.

### 5.1. Discussion

The section is focused on offering a comparative analysis of the findings derived from quantitative analysis and literature review. The focus is to reach the answer to research questions with a detail of what is achieved from the current analysis and how the results are supported or negated by the past researchers. Results suggested that the green supply chain management and related activities of the business, including green purchasing, waste management, development of eco-friendly designs, and customer relationship management, have a strong relationships with performance. The past research also helps to derive the insights that Green purchasing significantly impacts firm-level strategic planning. The focus of the business is to ensure that internal capabilities and effectiveness towards sustainable procedures and processes can be effectively managed (Khan et al., 2017). The findings of the research allow determining that a positive. However, the weak impact of green purchasing is evident in Pakistani hospitality businesses, contrary to the findings from the literature review.

The research outcomes derived from the literature review help identify the strong impact of green purchasing initiatives on the businesses found on firm performance both in the short and long run (Desire et al., 2019). The research studies also highlight that the increasing adoption and application of green purchasing leads to sustainable purchasing and is considered a practical step towards producing green products and services for hospitality businesses (Bassi et al., 2017). Researchers also highlight the importance of green purchasing on improved customer satisfaction, which can lead to better competitive and economic/performance benefits in the long run (Schmidt et al., 2020). Based on the discussion, the results help to identify that the respondents, including management personnel, are not fully aware of the benefits of green purchasing. Therefore, there is a need to increase awareness among the public as well as businesses at large.

According to the respondents, the waste management practices for businesses do not have a significant impact; moreover, a negative relationship between WM and performance is evident from the regression outcomes (Beta -0.158 weak and adverse with Sig.= .079 insignificant). The literature review highlights that businesses in the hospitality industry and others must carry out waste management and sustainable supply chain practices most efficiently. The study by Sucky et al. (2019) help to highlight that waste management in restaurants and the hospitality industry significantly leads to improved customer relationship and satisfaction. Researchers also highlight that the application of waste management strategies by businesses is found to have a significant positive impact on the manufacturing and service industry's performance and profitability (Bassi et al., 2017).

The requirement to efficiently control and maintain sustainability can be managed most effectively by carrying out waste management effectively. Researchers highlight that the practical application of waste management for businesses can improve efficiency, productivity, and growth (Schmidt et al., 2020). The research results determine that eco-friendly design for businesses is found to be the most critical and leads to a moderate impact on firm performance. The past research studies also help to identify that applying sustainable and green supply chain management practices aims to reach eco-friendly and effective product and service designs (Kim et al., 2019). The research allows the development of an understanding that improved and eco-friendly products and designs for businesses can increase customer satisfaction and demands for the business's products and services (Firat, 2019; You et al., 2020).

The focus on eco-friendly product designs helps businesses use sustainable raw materials that attract new customers and helps retain current hospitality business customers (Firat, 2019; You et al., 2020). For Pakistani hospitality businesses, the relevance of eco-friendly design and products is gaining importance; however, application to the industry is required. The results also show that effective customer relationship management for hospitality businesses shows a positive weak, and significant impact on the performance of the businesses (Beta value of .229 and sig. = .013). The findings derived from the literature review also support that customers worldwide require more hygienic and sustainable

food products (Shaheen, 2022; Modica et al., 2020).

The application of GSCM provides efficient outcomes for businesses to overcome challenges and effectively meet customer demands for hygienic and sustainable products and services (Sucky et al., 2019). The effectiveness of customer relationships for businesses and their impact on improving customer satisfaction and business performance are pointed out by Sucky et al. (2019). The findings derived by Sarkis et al. (2011) also help to support the results that customer satisfaction can be improved by effectively applying GSCM practices, which leads to better performance. Schmidt et al. (2020) also help to highlight that businesses are required to effectively manage customer relationship management practices to improve the overall outcomes.

## **5.2. Implications and Limitations**

The results identify a significant and moderate impact of all the independent variables reflecting the relevance of Green Supply Chain Management. Based on the findings, it is required that all hospitality businesses focus on raising their GSCM standards as it can improve customer satisfaction, lower the environmental impact, improve waste management, and finally, can result in better performance of businesses. Research limitations for the research are limited as the focus was to achieve a better and more detailed understanding of the subject using the resources. The researcher was able to achieve a significant sample size (i.e., 150) however, access to the management personnel was a significant concern as the businesses had limited upper management staff compared to employees and staff. The research made sure to reach out to more restaurants in Karachi to collect responses that can provide better outcomes. The data collection process took more time than anticipated. However, the research outcomes are found to be effective and efficient.

#### 5.3. Recommendations

Based on the outcomes of the research, the following recommendations are offered. The hospitality industry must decide and effectively adopt GSCM as it is found to positively influence the performance of businesses (Desire, Mulyungi, & Ismail, 2019). The main motive of the firms is to offer products and services that can meet the changing demands and satisfy the customers at large. Therefore, the application of GSCM is recommended. The improvements in green purchase, customer relationship management and waste management activities and initiatives for the hospitality industry in Pakistan must be focused on. The results show a varied discussion as past research shows a significant and robust positive impact of the variables on firm performance (Schmidt et al., 2020). The importance in Pakistani businesses is required to rise with focused and strategic plans and developments. Finally, based on the results, future researchers are recommended to carry out more focused and in-depth research studies to derive better theoretical, practical, and conceptual outcomes for the subject. Applying interviews using qualitative research is highly recommended as it can offer a better outcome in gaining insights from professionals regarding the subject and reflecting on the why factors of their responses.

### References

- Agha, A. A., Rashid, A., Rasheed, R., Khan, S., & Khan, U. (2021). Antecedents of Customer Loyalty at Telecomm Sector. Turkish Online Journal of Qualitative Inquiry, 12(9), 1352-1374.
- Agyabeng-Mensah, Y., Ahenkorah, E., Afum, E., Dacosta, E., & Tian, Z. (2020). Green warehousing, logistics optimization, social values and ethics and economic performance: the role of supply chain sustainability. *The International Journal of Logistics Management*, *1*(1), 1-10.
- Ahmad, I., & Ahmad, S. (2018). Multiple skills and medium enterprises' performance in Punjab Pakistan: A pilot study. *The Journal of Social Sciences Research, Special*, 4(2018), 44-49.
- Alam, M. (2022). Supply Chain Management Practices and Organizational Performance in Manufacturing Industry. *South Asian Journal of Operations and Logistics*, 1(1), 42-52.
- Ali, S. B. (2022). Industrial Revolution 4.0 and Supply Chain Digitization. South Asian Journal of

- Social Review, 1(1), 21-41.
- Alrazehi, H. A. A. W., Amirah, N. A., Emam, A. S., & Hashmi, A. R. (2021). Proposed model for entrepreneurship, organizational culture and job satisfaction towards organizational performance in International Bank of Yemen. *International Journal of Management and Human Science*, 5(1), 1-9.
- Alshura, M. S., & Assuli, J. A. (2017). Impact of internal environment on performance excellence in Jordanian public universities from faculty points of view. *International Journal of Business and Social Science*, 8(1), 45-57.
- Amjad, S. (2022). Role of Logistical Practices in Quality Service Delivery at Supermarkets: A Case Study from Pakistan. *South Asian Journal of Operations and Logistics*, 1(1), 39-56.
- Anwar, M. F. A. (2022). The Influence of Inter-Organizational System Use and Supply Chain Capabilities on Supply Chain Performance. *South Asian Journal of Operations and Logistics*, 1(1), 20-38
- Asif, K. (2022). The Impact of Procurement Strategies on Supply Chain Sustainability in the Pharmaceutical Industry. *South Asian Journal of Social Review, 1*(1), 53-64.
- Ayaz, J. (2022). Relationship between Green Supply Chain Management, Supply Chain Quality Integration, and Environmental Performance. *South Asian Management Review*, *I*(1), 22-38.
- Baloch, N. & Rashid, A. (2022). Supply Chain Networks, Complexity, and Optimization in Developing Economies: A Systematic Literature Review and Meta-Analysis. *South Asian Journal of Operations and Logistics*, *1*(1), 1-13.
- Basit, A. (2022). The Influence of Green Supply Chain Management on Sustainable Performance. *South Asian Journal of Operations and Logistics*, 1(1), 49-66.
- Bassi, S. A., Christensen, T. H., & Damgaard, A. (2017). Environmental performance of household waste management in Europe-An example of 7 countries. *Waste Management*, 69(1), 545-557.
- Das, S., Ghani, M., Rashid, A., Rasheed, R., Manthar, S., & Ahmed, S. (2021). How customer satisfaction and loyalty can be affected by employee's perceived emotional competence: The mediating role of rapport. *International Journal of Management*, 12(3), 1268-1277. DOI: 10.34218/IJM.12.3.2021.119.
- Desire, N., Mulyungi, P., & Ismail, N. (2019). Effect of Internal Environment Management Practices on Supply Chain Performance Among Agri-Manufacturing Firms In Rwanda. *American Journal of Supply Chain Management*, 4(1), 1-12.
- First, Y. (2019). Utility-scale solar photovoltaic hybrid system and performance analysis for ecofriendly electric vehicle charging and sustainable home. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 41*(6), 734-745.
- Foltean, F. S., Trif, S. M., & Tuleu, D. L. (2019). Customer relationship management capabilities and social media technology use: Consequences on firm performance. *Journal of Business Research*, 104(1), 563-575.
- Haque, I., Rashid, A., & Ahmed, S. Z. (2021). The Role of Automobile Sector in Global Business: Case of Pakistan. *Pakistan Journal of International Affairs*. 4(2), 363-383.
- Hashmi, A. R., & Mohd, A. T. (2020). The effect of disruptive factors on inventory control as a mediator and organizational performance in Health Department of Punjab, Pakistan. *International Journal of Sustainable Development & World Policy*, 9(2), 122-134. DOI: 10.18488/journal.26.2020.92.122.134.
- Hashmi, A. R., Amirah, N. A., & Yusof, Y. (2020a). Mediating effect of integrated systems on the relationship between supply chain management practices and public healthcare performance: Structural Equation Modeling. *International Journal of Management and Sustainability*, *9*(3), 148-160. DOI: 10.18488/journal.11.2020.93.148.160.

- Hashmi, A. R., Amirah, N. A., & Yusof, Y. (2021a). Organizational performance with disruptive factors and inventory control as a mediator in public healthcare of Punjab, Pakistan. *Management Science Letters*, 11(1), 77-86. DOI: 10.5267/j.msl.2020.8.028.
- Hashmi, A. R., Amirah, N. A., Yusof, Y., & Zaliha, T. N. (2020b). Exploring the dimensions using exploratory factor analysis of disruptive factors and inventory control. *The Economics and Finance Letters*, 7(2), 247-254. DOI: 10.18488/journal.29.2020.72.247.254.
- Hashmi, A. R., Amirah, N. A., Yusof, Y., & Zaliha, T. N. (2021b). Mediation of inventory control practices in proficiency and organizational performance: State-funded hospital perspective. *Uncertain Supply Chain Management*. *9*(1), 89-98. DOI: 10.5267/j.uscm.2020.11.006.
- Hatch, M. (2006). *Organization Theory: Modern, Symbolic, and Postmodern Perspectives*. Oxford, England: Oxford University Press.
- Hinton, P., McMurray, I., & Brownlow, C. (2014). SPSS explained. London: Routledge.
- Hunaid, M., Bhurgri, A. A., & Shaikh, A. (2022). Supply Chain Visibility in Leading Organizations of the Shipping Industry. *South Asian Journal of Social Review, 1*(1), 8-20.
- Julong, D. (1989). Introduction to grey system theory. The Journal of grey system, 1(1), 1-24.
- Kafle, S. (2019). Correlation and regression analysis using SPSS. *OCEM J Manag Tech Soc Sci*, 1(1), 126-132.
- Karanovic, G., Polychronidou, P., Karasavvoglou, A. G., & Ribarić, H. M. (2021). *Tourism Management and Sustainable Development*. London: Springer Nature.
- Khan, S. A. R., Dong, Q., Zhang, Y., & Khan, S. S. (2017). The impact of green supply chain on enterprise performance: In the perspective of China. *Journal of Advanced Manufacturing Systems*, 16(03), 263-273.
- Khan, S. K., Ahmed, S., & Rashid, A. (2021). Influence of social media on purchase intention and customer loyalty of generation Y with the mediating effect of conviction: a case of Pakistan. *Pakistan Journal of International Affairs*. 4(2), 526-548.
- Khan, S., & Qianli, D. (2017). Impact of green supply chain management practices on firms' performance: an empirical study from the perspective of Pakistan. *Environmental Science and Pollution Research*, 24(20), 16829-16844.
- Khan, S., Benham, A., Rashid, A., Rasheed, R., & Huma, Z. (2022c). Effect of leadership styles on employees' performance by considering psychological capital as mediator: evidence from airlines industry in emerging economy. *World Journal of Entrepreneurship, Management and Sustainable Development, 18*(8). <a href="https://wasdlibrary.org/publications/journals/wjemsd/">https://wasdlibrary.org/publications/journals/wjemsd/</a>
- Khan, S., Rasheed., R., & Rashid, A., Abbas, Q., & Mahboob, F. (2022b). The Effect of Demographic Characteristics on Job Performance: An Empirical Study from Pakistan. *Journal of Asian Finance*, *Economics and Business*, 9(2), 283-294. <a href="https://doi.org/10.13106/jafeb.2022.vol9.no2.0283">https://doi.org/10.13106/jafeb.2022.vol9.no2.0283</a>
- Khan, S., Rashid, A., Rasheed, R., & Amirah, N. A. (2022a). Designing a knowledge-based system (KBS) to study consumer purchase intention: the impact of digital influencers in Pakistan. *Kybernetes*, 51(1). <a href="https://doi.org/10.1108/K-06-2021-0497">https://doi.org/10.1108/K-06-2021-0497</a>
- Kim, Y. J., Kim, W. G., Choi, H. M., & Phetvaroon, K. (2019). The effect of green human resource management on hotel employees' eco-friendly behavior and environmental performance. *International Journal of Hospitality Management*, 76(1), 83-93.
- Lohr, S. (2021). Sampling: design and analysis. London, United Kingdom: Chapman and Hall/CRC.
- Marwad, A., & Zagade, S. (2020). Importance of Green Supply Chain Management and its impact on the Hotel Industry in the near future. *Studies in Indian Place Names*, 40(27), 1751-1766.
- Mills, T. (2014). Presenting and Summarising Data. In Analysing Economic Data (pp. 5-22). London:

- Palgrave Macmillan.
- Miroshnychenko, I., Barontini, R., & Testa, F. (2017). Green practices and financial performance: A global outlook. *Journal of Cleaner Production*, 147((2017)), 340-351.
- Modica, P., Altinay, L., Farmaki, A., Gursoy, D., & Zenga, M. (2020). Consumer perceptions towards sustainable supply chain practices in the hospitality industry. *Current Issues in Tourism*, 23(3), 358-375.
- Muzammil, M. (2022). Evaluating the Factors to Improve the Organizational Performance. *South Asian Management Review*, *1*(1), 39-48.
- Pallant, J. (2020). SPSS survival manual: A step by step guide to data analysis using IBM SPSS. London: Routledge.
- Ragab, M., & Arisha, A. (2018). Research methodology in business: A starter's guide. *Management and organizational studies*, 5(1), 1-14.
- Rasheed, T. (2022). Supply Chain Sustainability Through Green Practices in Manufacturing: A Case Study from Pakistan. *South Asian Journal of Operations and Logistics*, 1(1), 57-71
- Rashid, A. & Rasheed, R. (2022). A Paradigm for Measuring Sustainable Performance Through Big Data Analytics–Artificial Intelligence in Manufacturing Firms. *Available at SSRN 4087758*.
- Rashid, A. (2016). Impact of inventory management in downstream chains on customer satisfaction at manufacturing firms. *International Journal of Management, IT and Engineering*, 6(6), 1-19.
- Rashid, A., & Amirah, N. A. (2017). Relationship between poor documentation and efficient inventory control at Provincial Ministry of Health, Lahore. *American Journal of Innovative Research and Applied Sciences*, 5(6), 420-423.
- Rashid, A., Ali, S. B., Rasheed, R., Amirah, N. A. & Ngah, A. H. (2022). A paradigm of blockchain and supply chain performance: a mediated model using structural equation modeling. *Kybernetes, Vol. ahead-of-print No. ahead-of-print*. https://doi.org/10.1108/K-04-2022-0543
- Rashid, A., Amirah, N. A., & Yusof, Y. (2019). Statistical approach in exploring factors of documentation process and hospital performance: a preliminary study. *American Journal of Innovative Research and Applied Sciences*, 9(4), 306-310.
- Rashid, A., Amirah, N. A., Yusof, Y., & Mohd, A. T. (2020). Analysis of demographic factors on perceptions of inventory managers towards healthcare performance. *The Economics and Finance Letters*, 7(2), 289-294. DOI: 10.18488/journal.29.2020.72.289.294
- Rashid, A., Rasheed, R., Amirah, N. A., Yusof, Y., Khan, S., & Agha, A., A. (2021). A Quantitative Perspective of Systematic Research: Easy and Step-by-Step Initial Guidelines. *Turkish Online Journal of Qualitative Inquiry*, 12(9), 2874-2883.
- Sarkis, J., Zhu, Q., & Lai, K. (2011). An organizational theoretic review of green supply chain management literature. *International journal of production economics*, 130(1), 1-15.
- Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research Methods for Business Students*. London, United Kingdom: Pearson Education.
- Schmidt, S., Laner, D., Van Eygen, E., & Stanisavljevic, N. (2020). Material efficiency to measure the environmental performance of waste management systems: A case study on PET bottle recycling in Austria, Germany and Serbia. *Waste Management*, 110(1), 74-86.
- Shaheen, S. (2022). Quality management and operational performance: a case study from Pakistan. *South Asian Journal of Operations and Logistics, 1*(1), 14-19.
- Soltani, Z., Zareie, B., Milani, F. S., & Navimipour, N. J. (2018). The impact of the customer relationship management on the organization performance. *The Journal of High Technology Management Research*, 29(2), 237-246.
- Spector, P. (2019). Do not cross me: Optimizing the use of cross-sectional designs. Journal of Business

- and Psychology, 34(2), 125-137.
- Sucky, E., Kolke, R., Biethahn, N., Werner, J., & Vogelsang, M. (2019). *Mobility in a Globalised World* 2018. London: University of Bamberg Press.
- Trivellas, P., Malindretos, G., & Reklitis, P. (2020). Implications of Green Logistics Management on Sustainable Business and Supply Chain Performance: Evidence from a Survey in the Greek Agri-Food Sector. *Sustainability*, *12*(24), 10515.
- Uddin, S. Q. (2022). Supply Chain Integration, Flexibility, and Operational Performance. *South Asian Management Review*, *1*(1), 1-21.
- Victory, G. O., Lizzie, O. A. & Olaitan, A. A. (2022). Climate-Smart Agricultural Practices at Oyo State-Nigeria. *South Asian Journal of Social Review*, 1(1), 1-7.
- Wang, Y., Chen, S., Lee, Y., & Tsai, C. (2013). Developing green management standards for restaurants: An application of green supply chain management. *International Journal of Hospitality Management*, 34((2013)), 263-273.
- You, S., Sonne, C., & Ok, Y. (2020). COVID-19's unsustainable waste management. *Science*, 368(8), 1438.