Influence of Green Purchasing and Green Packaging on Sustainability and Operational Performance: A Case Study from E-Commerce Industry

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ABSTRACT

The increase in supply chain management concerns waste management, pollution, and others have led to a more concerned opinion from the stakeholders. Businesses all over the world are facing challenges in implementing processes and applying strategies in the long run to limit the overall environmental impact. The focus of the research is to develop a better understanding of sustainable supply chain management practices and to determine the relevance of SSCM with a focus on sustainability and performance. The subject's relevance is derived from understanding the sustainability and supply chain management theory, and focused hypotheses are developed. The researcher carried out a quantitative research methodology with a survey questionnaire designed and developed on Google Forms and was provided to the supply chain professionals in Karachi, Lahore, and Islamabad. The researcher collected a total of 153 responses based on the statistical analysis. The outcomes derived from the regression analysis allow us to understand that the application of green purchasing has no significant impact on the overall performance; however, a weak positive impact on the sustainability of the business is evident. However, sustainable purchasing is found to impact overall performance and sustainability positively.

Keywords: Sustainability, E-commerce, Daraz, Green packaging, Green purchasing.

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1. Introduction

The increasing concerns about Supply Chain Management (SCM) for most industries are evident (Hashmi & Mohd, 2020; Hashmi et al., 2020a; Lavastre et al., 2012; Vanalle et al., 2017). The processes lead to the creation of pollution and waste, threatening the overall well-being and existence of life (Zailani et al., 2012). The businesses are pressurized to focus on maintaining adequate consideration to limit the environmental impact of Supply Chain (SC) and business processes. Research by Carter and Jennings (2002) helps to highlight that businesses are required to effectively portray environmentally friendly processes, product design, technologies, systems, and ways of doing business (Carter & Rogers, 2008). The business environment is also impacted by the recent changes and developments in economic and climate uncertainty. It has pressurized businesses to restructure and reconstruct their organizational strategies to more sustainable practices to survive and compete effectively in the dynamic business world (Hutton & Cox, 2013). The global pressures are through media, stakeholders, standards prepared by the authorities, NGOs (non-Governmental Organizations), and the community. The businesses focus on developing and adopting sustainable practices and applying them to internal and external (suppliers) to effectively meet the customer's sustainability expectations (Porter & Kramer, 2006; Zailani et al., 2012). The study is carried out with a focus on identifying the relevance and adoption of sustainability in supply chain management practices for Daraz, Pakistan's first and largest e-commerce market established in 2012 (Owned by Ai Baba in 2018). The research study is devised to understand how the business has transformed over time concerning sustainability requirements and whether sustainable business practices have led to increased sustainability and operational performance.

The term Sustainable Supply Chain Management (SSCM) is referred to: The transparent, integrated, strategic, and achievement of social, economic, and environmental goals by effectively managing the inter-organizational processes to improve the processes, organizational, and economic performance of the supply chain (Carter & Rogers, 2008; Hashmi et al., 2020b). The preliminary research helps identify concerns for SCM businesses that have witnessed increasing debates. Researchers have helped to highlight that human life and its existence is majorly impacted by lack of sustainability (Vanalle et al., 2017; Hashmi et al., 2021a). External pressures are found to impact organizational decision-making. Therefore, considering integrating and effectively applying supply chain management activities and processes is discussed from a business perspective. The focus on Pakistani businesses is limited. However, most Pakistani businesses are adopting sustainability within the Supply Chain Practices (SCP) based on the increasing demand from customers and enhanced external pressures from media, NGOs, and other stakeholders. The focus of the study is to derive an investigation to determine the relevance and adoption of SSCM for Daraz, the largest e-commerce business in Pakistan (owned by Ali Baba). The research aims to carry out an in-depth investigation on the adoption of SSCM (Sustainable Supply Chain Management) and how it has helped Daraz to achieve higher company performance and overall sustainability effectively.

1.1. Research Objectives

The research objectives are developed to accomplish the research aim/ purpose effectively. The research objectives are;

a. *To determine the association between green purchasing and sustainability.*

b. *To determine the association between green purchasing and operational performance.*

c. *To determine the association between green packaging and sustainability.*

    d.   To determine the association between green packaging and operational performance.

1.4. Research Questions

The research question of the research is presented below;

    a.   To what extent does green purchasing influence sustainability?

    b.   To what extent does green purchasing influence operational performance?

    c.   To what extent does green packaging influence sustainability?

    d.   To what extent does green packaging influence operational performance?

2. Literature Review

2.1. Sustainability and Supply Chain Management

According to researchers, there is a significant role in sustainable supply chain management considered to be a major part of supply chain development. There are three core dimensions of sustainable development, including social, economic, and environmental prospects (Carter & Rogers, 2008). The focus of businesses to effectively meet the demand from customers has led to increasing the industrial output for which supply chain practices are increased leading to negative consequences for the society and environment. Therefore, sustainability's relevance in supply chain management is a majorly debated research topic (Rajeev et al., 2017). The findings from Rajeev et al. (2017) help to highlight that sustainability in businesses concerning economic, environmental, and social prospects are rare. However, one or combination of two dimensions is discussed in the research.

Other researchers help identify five major categories of high relevance and importance towards supply chain management. The relevance of sustainability, collaboration, continuity, proactivity, and risk management are the five factors to be focused on. The research studies must adopt a more conventional approach to supply chain management as it can lead to effective, sustainable supply chain management (Beske & Seuring, 2014; Hashmi et al., 2021b). The requirements for businesses to act sustainably are considered critical. The businesses must ensure to effectively assess the overall social impacts related to the supply chain activities as it can lead to effective competitive advantage. The focus of the management is to evaluate the different sustainable practices and methods must be determined before taking the decisions (D'Eusanio et al., 2019). The outcomes from previous research show that the individual dimensions for sustainable supply chain management for businesses are discussed in the majority. However, a more integrated approach to dealing with the subject is required.

2.2. Green Packaging

James et al. (2005) help to define that packaging without delay can contribute to the fulfilment of the product in the supply chain whereby it permits green distribution of merchandise and reduced environmental, intellectual effect of product spoilage and waste (James et al., 2005). However, packaging has an environmental impact that is not sustainable within the lengthy-time period, such as intake of non-renewable sources, the era of air emissions in production, shipping and use, and manufacturing of strong waste requiring disposal in landfills. According to Kooijmann (1996), the blessings of Green Packaging might be apparent from an environmental perspective, along with reduced waste and aid conservation, in addition to the monetary and social blessings (Kooijmann, 1996).

Verghese and Lewis (2007) argued that, typically, when goods bypass the commercial supply chain, the related packaging waste is usually a forgotten or omitted derivative that is poorly managed and sooner or later leads to litter, negative recycling, and pointless waste to landfill. These phenomena are further annoyed employing terrible communique and absence of experience of responsibility among delivering chain partners; which limits the capability for stepped forward packaging solutions that can concurrently meet the useful desires of the deliver chain's running surroundings and decrease the

environmental effect and supply chain costs (Verghese & Lewis, 2007). According to Jahre and Hatteland (2004), packaging plays an enormous position in a huge included device that entails many actors for the duration of the supply chain, such as substance managing, inbound logistics operations, buying, production, warehousing, transportation, and retailing (Jahre & Hatteland, 2004).

2.3. Green Purchasing

The businesses are focused on ensuring green purchasing as a sustainability strategy that effectively incorporates the sustainable activities right from the basics (Zhang et al., 2013). Businesses can effectively adopt these activities as a top priority. The product-related features are well explained and presented; furthermore, the application of effective communication between the suppliers, business, and customers are carried out. All the different activities and product attributes, including content requirements, content restrictions, labelling, and disclosures, questionnaires from suppliers, environmental management from suppliers, certification of the supplier(s), and compliance to audit for suppliers, are all effectively incorporated within the practices (Eltayeb & Zailani, 2014). The results help to identify the significant impact of green purchasing on maintaining effective relationships with the suppliers and customers.

Based on the above, delivery managers must recollect the final disposition of the materials and additives that input the firm (Eltayeb et al., 2021). Carter and Jennings (2002) recommended that those lifestyles-cycle issues need to be considered as part of the shopping and procurement procedure and ask upstream individuals of the supply chain to dedicate to waste reduction goals and to layout and offer the buying company the substances and components recognized via the layout for disassembly and lifestyles-cycle analysis (Carter & Jennings, 2002; Rashid et al., 2022). Bjorklund (2010) recommended that growing strategic importance of the shopping characteristic has elevated the dialogue at the contribution of shopping to lower the effect at the natural environment and concluded that purchasing may want to be a more powerful alternate agent than every other company characteristic (Bjorklund, 2010). Carter and Jennings (2002) claim that green purchasing has an extraordinary impact on a company's operational performance concerning net profits and the value of products bought (Carter & Jennings, 2002; Rashid & Rasheed, 2022). Zsidisin and Siferd (2001) provided a greater holistic definition of Green purchasing, which is likewise implemented in this study: Environmental searching for a character firm is the set of shopping regulations held, actions taken, and relationships fashioned in response to concerns related to the herbal surroundings (Zsidisin & Siferd, 2001). These issues relate to the purchase of uncooked materials, along with supplier choice, assessment and development, supplier's operations, in-bound distribution, packaging, recycling, reuse, resource reduction, and very last disposal of the firm's merchandise (Rezaei et al., 2016). Based on the above evaluation of the literature, green purchasing practices with the aid of manufacturing agencies can achieve a couple of advantages including greater dealer engagement, decreased fee and minimized environmental effect, that could eventually cause a sustainable deliver chain performance.

2.4. Research Framework

The research framework is devised to highlight the relevance of sustainable supply chain management, precisely focused on determining green purchasing and Green Packaging for Daraz. The overall sustainability dimensions determine the impact of sustainable practices. The focus of the research is to assess the factors, including green purchasing and Green Packaging for the products delivered to the customers, on the overall sustainability. The research outcomes are considered to contribute positively towards effectively determining the impact of green purchasing and Green Packaging on all the sustainability for Daraz and positively add to the literature gap (Zailani et al., 2012).
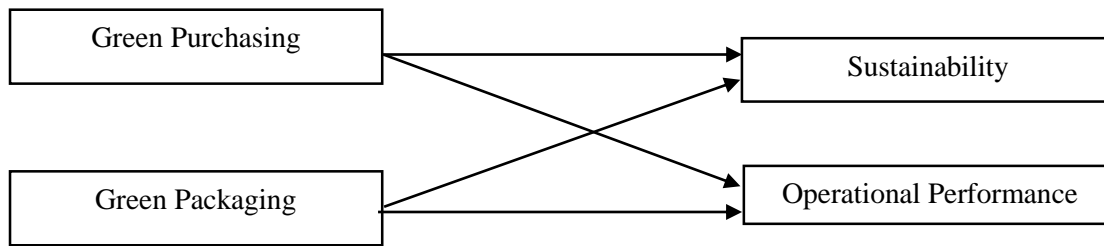
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│    Green Packaging      │─────────┘      └────────→ │   Operational Performance   │
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Figure 1: Framework of research

2.5. Hypothesis

The research hypothesis for the study is devised based on the determination of the impact of green purchasing on outcomes for the business. The researcher provides a more focused research hypothesis that is categorized from the central hypothesis, these include;

$H_{1\,(a)}$: *Green purchasing significantly influences sustainability.*

$H_{1\,(b)}$: *Green purchasing significantly influences operational performance.*

$H_{2\,(a)}$: *Green Packaging significantly influences sustainability.*

$H_{2\,(b)}$: *Green Packaging significantly influences operational performance*

3. Research Methodology

The research approach reflects on the possible procedures and plan, which incorporates the broad assumptions related to the data collection, practical analysis, and interpretation (Saunders et al., 2019). The focus of the research approach is to effectively determine the plan that fits the problem addressed in the research. The main research approaches include qualitative, quantitative, and mixed approaches. Qualitative research helps conduct a more naturalistic and in-depth inquiry about a subject. A detailed assessment is planned to be carried out to determine the reasons and how people perceive the subject (Grossoehme, 2014). Quantitative research integrates the adoption of methods that help to collect and analyze numerical data; it helps to provide details and patterns, test different causal relationships, and make predictions based on data (Bloomfield & Fisher, 2019). Finally, the mixed-method allows adopting a methodology incorporating qualitative and quantitative data and their analysis. The focus of the methodology is to provide focus on carrying out a detailed assessment of a subject/ phenomenon (Onwuegbuzie et al., 2010).

To determine the impact of SSCM, the study is focused on carrying out a quantitative research approach. The plan is to collect the responses on a self-administered questionnaire and convert the responses into numerical values (Likert Scale). Research design allows helping integrate and define the different parts/ components of the research to enhance the coherence and logic of the research (Marczyk et al., 2010). It allows us to effectively reflect on the procedures that can improve the chances of accomplishing the research objectives. The correlational research design is adopted. It allows for the development of research that determines the relationship between the variables without any control or manipulation. For the current study, the impact or relationship between SSCM and the performance of Daraz is to be evaluated. Therefore, the correlational research design fits the nature and direction of the research (Myers et al., 2013).

3.3. Sampling Design

The sample refers to a subset derived from the research population, which is focused on offering

convenience and ease to the researcher to carry out efficient research (Rashid et al., 2021). The sample size for quantitative research is more significant compared to qualitative research. The research population comprises the supply chain managers and executives working in Daraz Karachi, Lahore, and Islamabad. The researcher plans to reach out to the supply chain personnel working in Daraz and inform them about the motive of the research and how their contribution can help to improve the understanding and relevance of sustainable supply chain management in Pakistan's largest e-commerce business. The personal contacts, including friends, were informed that the respective supply chain department in two different locations in Karachi, Lahore, and Islamabad will be provided with the link to an online questionnaire the respective participants would fill. The sample size for the current study is 200 participants, including experienced executives, managers, and other supply chain management personnel working in the company's warehouse at different locations within Pakistan. The motive is to collect the responses code them into excel, and export them to SPSS for analysis purposes. The questionnaire was distributed to a total of 200 participants. Managers, executives, and other management personnel from the supply chain department will be selected and asked to fill out the questionnaire (Khan et al., 2020; Khan et al., 2022a, b, c).

3.4. Instrument of data collection

The instrument is planned to be circulated as an online questionnaire. The questionnaire is devised on MS Word and approved by the supervisor. Later Google Forms was used to develop and collect an online link circulated to the respondents. The questionnaire for the research is adopted from the study by (Zailani et al., 2012). The survey questionnaire constitutes two parts and is developed following the sample provided by the supervisor. The two parts/ sections include demographic details and other investigative questions. The demographic details, including the age of participants, gender, and experience with Daraz, are inquired about. It is ensured that no personal question is asked to increase the anonymity of the respondents. The questions are planned to be analyzed using descriptive statistics (frequency distribution). On the other hand, the second section of the questionnaire comprises five questions related to sustainable supply chain management, customer satisfaction, and the relevance of the two variables on the performance of the business. For performance, the questionnaire comprises five questions. After approval, all five questions and the demographic information would be added to the online questionnaire.

3.5. Data collection procedure

Data collection reflects the possible ways participants collect data (Couper, 2017). The researcher has asked two of his close friends about the research's relevance, objective, and aim. These two persons working as managers in Daraz have been allowed to provide them with the questionnaire, which was delivered/ sent to supply chain managers and other management personnel. An online questionnaire is used as it allows the opportunity to carry out the research without being physically present in Lahore, Islamabad, and even in the two Karachi-based warehouses of Daraz. The questionnaire is filled out using the online survey link on Google Forms. The participants can easily access and fill out the questionnaire using the internet as it does not require any specific tool or application.

3.6. Statistical Techniques

Statistical tools used for the study include AMOS and SPSS. In the application of Reliability statistics to test the reliability of the responses (Leech et al., 2014), the frequency distribution is used to determine the summaries of the frequency of the demographic details and help to develop a profile for the respondents (Meyers et al., 2013; Rashid, 2016; Rashid & Amirah, 2017). Finally, a regression analysis (Linear regression) is to be carried out to determine the impact of the independent variables, including the application of environmental packaging and Green Packaging by Daraz, on the performance and sustainability of Daraz.

4. Results and Findings

The analysis outcomes were derived from SPSS. The outcomes from SPSS include reliability testing, descriptive profile (demographic profile) for the respondents using frequency distribution and regression analysis (Rashid et al., 2019; Rashid et al., 2020).

4.1. Reliability Statistics

Reliability testing is carried out to determine the validity and consistency of the responses (data collected by the researcher). The total number of observations/ responses collected by the researcher is 153 responses, and all the responses are tested for 24 items (including 5 for environmental packaging, 5 for green packaging, 5 for operational performance, and 9 for sustainability). The results for Cronbach's Alpha are used/ interpreted to determine the reliability. The results derived from the reliability are based on the interpretation of Cronbach's Alpha. The value should exceed the standard limit of 0.70 to achieve reliable levels (Rashid et al., 2021; Agha et al., 2021; Haque et al., 2021; Das et al., 2021; Alrazehi et al., 2021). The reliability statistics table shows a value of 0.913 for 24 items, reflecting that the data collected for the research study are valid and reliable.

Table 1: Reliability statistics

Cronbach's Alpha	N of Items
0.913	24

4.2. Descriptive Profile

The focus of the section is to offer insight into the demographic details, including the gender, age, education, and experience of the respondents. The results are provided in the combined table and graphs that are interpreted to derive better insights from the findings of the descriptive profile. The table allows insight into the research study's audience about the number of responses against each item of the demographics. A detailed explanation for pie charts for respective outcomes is provided for a better understanding. The demographic results illustrated that most male respondents participated in the research. Out of the 153 respondents, 75.16% (115) are male. The remaining 24.84 (i.e., 38 respondents) are females. The age distribution for respondents in four categories (i.e., 20-29 years, 30-34 years, 40-49 years, and 50 or above years). The results help to identify that the respondents over 50 years were 0.7% (i.e., 1 participant). Fifteen respondents had an age between 40-49 years, 57 respondents between 30-39 years, and finally, 52.29% (i.e., 80 participants) had an age between 20-29 years. The results presented that 73.20% of the participants contributing to the questionnaire have a graduate level of education, followed by 21.57% with post-graduate degrees, 7 participants (i.e., 4.6%) had intermediate level education, and finally, 1 had other qualifications. The results from the participants' educational background help to identify that majority of the participants were well educated working in the firm's supply chain (i.e., 146 participants with graduation, post-graduation, and other qualifications). Finally, the results presented that the respondents have an experience of 3-6 years (a total of 87 participants), followed by 1-2 years' experience (28.8% of the respondents), 13 participants with 7-12 years of experience in Daraz and 9 with more than 13 years or above experience.

4.3. Hypothesis Testing

The researcher conducts a regression analysis to conduct a detailed assessment of the data to achieve the research objectives and test the hypothesis. The results from the regression analysis are provided under two separate regression models, one with the dependent variable of overall sustainability and the other to test the impact of green packaging and green purchasing on the operational performance of the business. The motive is to test the hypothesis and determine whether the relationship and significance between the variables are achieved.

4.3.1. Regression model for operational performance

The regression model is developed with responses to Green Packaging and environmental packaging as the independent variables and tests the impact of the two variables on the company's operational performance. The results presented in the table help to determine and highlight the combined result of the data analysis carried out using descriptive and regression analysis. The independent variables for the test (regression model) are Green Packaging and green purchasing, whereas the dependent variable is Operational Performance. The table shows that green purchasing has a mean value of 3.24, which shows that most respondents are neutral (3 = neutral option in the questionnaire). For Green Packaging, the mean value is 3.60, which is closer to 4 and helps to reflect that most respondents agree or remain neutral on their choice. The overall performance shows a value for the mean of 3.95 or (4 – rounded off to 0 decimal places).

The regression results help to identify a weak relationship between the variables (R Square value is .164). The significance value presented in the ANOVA table of regression is .000, which reflects that a significant weak relationship is evident between the variables (i.e., green purchasing, Green Packaging and overall performance). The results from the Coefficient values reflect that the model represents a good fit between the dependent and independent variables, and the constant shows a significant relationship. Moreover, the green purchasing is found to reflect a feeble impact on operational performance (B – Beta value is .087 (i.e., 8.7%), the significant value is .237, which reflects the increase in environmental packaging by Daraz is found to have no significant impact on operational performance. On the other hand, Green Packaging is found to have a weak impact on operational performance. The results presented in the table show that increasing the Green Packaging by the business can result in improvements to the operational performance by 29.1% (0.291), and the value of significance is .000, which shows that the impact of the independent variable (Green Packaging) is significantly positive and weak on operational performance.

Table 2: Regression model for operational performance

Variables	N	μ	StDev	Model Summary		ANOVA		Coefficient		
				R	R^2	F	Sig.	Std. Beta Coefficient	T	Sig.
Green purchasing		3.24	.878					.087	1.19	.000
Green Packaging		3.60	.827	.404	.164	14.67	.000	.291	3.726	.000
Overall Performance	153	3.95	.717							

4.3.2. Regression model

The regression analysis is carried out to test the impact of Green Packaging and environmental packaging (Independent variables) by Daraz and its impact on sustainability Do Sustainability (Dependent variable). The table shows that Green Packaging and environmental packaging are the independent variables, the Do Sustainability is the dependent variable for the regression model. The results from the model summary are beneficial for determining the relationship between the variables tested under the regression model. The R Square value is .253, which reflects that the variables tested under the regression model have a weak relationship.

The significance value for the model is .000. Therefore, it can be interpreted as the increasing support for Green Packaging and green purchasing for Daraz can lead to a weak and significant impact on sustainability (i.e., by 25.3%). The results from the coefficient table are critical as these reflect the impact of the two independent variables on sustainability. The results from the coefficients table show that environmental packaging is found to have a weak and significant impact on sustainability (Beta value .181 (i.e., 18.1% increase), and Sig. value is .011 (i.e., less than .05)). The results help to conclude that the increase in green purchasing by Daraz can lead to improving the sustainability for the company by 18.1%. Moreover, the results also help to identify the adoption and increase in Green Packaging by Daraz is likely to have a significant and moderate impact on maintaining and improving the sustainability. The value of Sig. is .000, which is less than 0.05, whereas the Beta value is .304, which reflects that the impact is positive moderate and significant. It can be concluded that the improvement in Green Packaging by Daraz is likely to improve the results for sustainability by 30.4%.

Table 3: Regression model for sustainability

Variables	N	μ	StDev	Model Summary		ANOVA		Coefficient		
				R	R^2	F	Sig.	Std. Beta Coefficient	T	Sig.
Green purchasing		3.24	.878					.181	2.58	.011
Green Packaging		3.60	.827	.503	.253	25.41	.000	.304	4.08	.000
Do Sustainability	153	3.73	.724							

4.3.3. Hypothesis assessment summary

The hypothesis for the research is planned to be evaluated using quantitative assessment/ statistical analysis applied to the responses collected from the participants. The results derived from the hypothesis testing are presented in a table that highlights the findings and conclusions of the research. The hypotheses (a total of four) are presented, and respective values from the regression model are presented to derive the outcomes.

Table 4: Hypothesis assessment summary

Hypothesis	Values
$H_{1 (a)}$: Green purchasing significantly influences sustainability.	Beta .181, Sig. .011
Based on the outcomes derived from the analysis (regression analysis), it is found that green purchasing positively impacts the dimension of sustainability; therefore, $H_{1 (a)}$ is accepted.	
$H_{1 (b)}$: Green purchasing significantly influences operational performance.	Beta .087, Sig. .237
The results help to identify that green purchasing has no impact on operational performance. Therefore, $H_{1 (b)}$ is rejected, and an alternate hypothesis is accepted "*green purchasing does not impact operational outcomes*".	
$H_{2 (a)}$: Green packaging significantly influences sustainability.	Beta .304, Sig. .000
The outcomes show that a moderate impact of green packaging on sustainability is evident, and therefore $H_{2 (a)}$ is accepted.	
$H_{2 (b)}$: Green packaging significantly influences operational performance.	Beta .291, Sig. .000
The findings show a positive and significant impact of Green Packaging on the operational performance of Daraz, and therefore, $H_{2 (b)}$ is accepted.	

5. Conclusion

The motive of carrying out the research is to derive insights regarding the application of SSCM, including the environmental and Green Packaging carried out by Daraz and its impact on performance and sustainability. The researcher assesses past research to identify the relevance and discussions carried out in the past research related to the topic and has highlighted that businesses worldwide are focused on sustainability management and have received considerable attention. To achieve the research hypothesis, the researcher carries out quantitative research, which is focus of Daraz on environmental and Green Packaging and is evaluated on the sustainability by the business and its operational performance. Analyzing the responses from supply chain professionals (a total of 153 respondents) using SPSS and AMOS helped identify the application of green purchasing by Daraz is found to have a positive and significant impact on sustainability. In contrast, no significant impact on operational performance is identified. Moreover, the adoption of Green Packaging by the company has a significant positive impact on sustainable dimensions and operational performance. The findings help to identify that the development and plan of the business towards Green Packaging to facilitate the delivery items reflect that the sustainability and the operational performance of the business are improved. The operational performance is improved due to the decline in the overall waste and process improvements. Furthermore, the environmental, as well as social dimensions, are found to be improved due to the focus on sustainable progress.

5.1. Discussion

The findings from the research allow the development of an understanding of the application of Green Packaging by Daraz has led to improvements in the sustainability. The findings from the literature review also help to identify that not only is the positive impact of Green Packaging on the environmental, economic, and social dimensions noticeable, but organizational benefits are evident in past research studies (James, Fitzpatrick, Lewis, & Sonneveld, 2005). The focus of Daraz to limit the environmental impacts with Green Packaging is found to have positive outcomes for the sustainability and also for the operational performance of the business is supported by Verghese and Lewis (2007).

On the other hand, the impact of the business has led to increased customer satisfaction, reflecting a positive impact on performance, as supported by the viewpoint put forward by (Rajeev et al., 2017). The business can improve the overall supply chain efficiency in the long run, as presented and highlighted by (Beske & Seuring, 2014). The results help to identify that the application of Green Packaging by Daraz can have a long-term impact on its performance improvement. Further, the focus of the research on deriving insights about the green purchasing carried out by Daraz is considered to be an influential factor that can positively, however, weakly impact the sustainability and is found to have no impact on operational performance. The research findings from the literature help to identify that global businesses are focused on maintaining and ensuring focus on green purchasing as the main factor in improving and integrating sustainability within the business practices (Zhang et al., 2013). The focus of Daraz ensures that a sustainable relationship with the suppliers and vendors can be created, affecting customer satisfaction and further improving the brand image (Eltayeb & Zailani, 2014). The supplier's and customer's requirements can be efficiently managed by applying green purchasing. All the products are developed and supplied to the customers using sustainable raw products and Green Packaging by Daraz. The research studies also highlight that the focus of businesses to improve the overall environmental impact is found to have a long-term impact on the overall performance of the business (Bjorklund, 2010; Rezaei et al., 2016) and, therefore, Daraz is more likely to reflect improved operations and sustainability in the long term. With time, increasing awareness among customers and other stakeholders would help determine to reap the outcomes for the business.

5.2. Implications

Based on the outcomes derived from the research, the following practical implications for the business as well as other businesses are offered. The company (Daraz) must continue to develop sustainable environmental relationships with the suppliers and focus on Green Packaging to reap future positive outcomes. The managers and the management of the business are recommended to improve the awareness of the customers about the efforts towards a sustainable supply chain and to maintain effective supplier and packaging-related sustainable policies. The rise in awareness is considered necessary for the business as it can help improve it's business's overall performance and long-term improvements in sustainability. The people once aware would find the company to offer a focus on sustainability, and it would lead to improving the overall business image and value for the business. The management of the business must focus on improving the operational factors, which include the efficiency in supply chain practices, processes, and other activities so that a long-term positive impact on operational performance can be achieved, which is not currently evident from the research outcomes. Other businesses are also recommended to focus on sustainability (Green Packaging) and green purchasing to improve their brand image and future profit abilities. The focus is compulsory as the customer and other stakeholders demand for sustainable products and services is rising worldwide.

5.3. Limitations

The prime limitation of the research includes time and budget constraints. The time constraints for the research restricted to completing the data collection and completion of the research in 2 semesters. The researcher ensured that the most reliable and authentic ways to collect and analyze data were carried out. The time limitations resulted in collecting data from 153 respondents. In contrast, the plan was to give time to the supply chain management at Daraz and at least 200 responses from managers, executives, and others from the company's supply chain department (data collected through personal contacts). The budget constraints restricted the participant to not taking part directly in the data collection as the survey questionnaire was provided to 2 people in the supply chain department at Daraz. The researcher could not go to Islamabad and Lahore by himself for data collection from the respective sample from the company's warehouses. The limitations of the research did not lead to any major impact on the reliability of the responses. However, future researchers can be asked to carry out more focused and detailed research in which their contribution is high in data collection and other roles.

5.4. Recommendations

The results from the research help to identify that Green Packaging positively impacts the sustainability and operational performance of Daraz. Furthermore, the application of green purchasing is found to have no significant impact on the operational performance of the business. In contrast, a positive and weak impact on sustainability is evident. The focus of the section is to offer recommendations to the management of the company and other businesses to effectively contribute to sustainability from a Pakistani perspective to achieve better operational and environmental outcomes in the future. The focused research helps to identify that the green purchasing by the company is not as efficient as no impact on operational performance is identified. The outcomes help to raise a concern, and therefore, the management recommends that efficiency in terms of green purchasing must be ensured so that effective operational and financial outcomes can be derived (Zhang et al., 2013). Daraz is required to manage coordination and communication between the suppliers effectively. It is also required to focus on raising awareness of the efforts put in by the company to improve green purchasing. The focus can help raise customers' knowledge and better understand that the company is focused on maintaining effective supplier and packaging management to support sustainability (Eltayeb & Zailani, 2014). Furthermore, continuous improvements to the internal operational procedures and activities are also recommended to the management as the focus on improvements can lead to an increase in the efficiency of the sustainability contributions and further can lead to improving delivery and other aspects of the business (Carter & Jennings, 2002; Eltayeb et al., 2021).

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