Effect of Green Brand Packaging on Green Brand Image: Mediating Role of Green Brand Association and Green Brand Advertising in the Context of Green Apparel Brand

Saif Ur Rehman¹, Sulaman Hafeez Siddiqui²

Abstract: The notion of green brand packaging in Pakistani textile brands remains very inadequate. Therefore, using the stimulus organism response model (SOR) as a basis, this research examines the influence of green brand packaging on green brand image for the Pakistani green apparel brand and determines the mediated role of green brand advertising and green brand association. Purposive sampling was used in the approach to gather data from 446 Pakistani clothing consumers. The questionnaires were delivered to consumers of apparel brands at malls and well-known marketplaces in Pakistan, including Lahore, Karachi, Islamabad, Multan, and Bahawalpur. The investigation was carried out using structural equation modelling with partial least squares. and SPSS. The outcomes of our research demonstrate that green brand association, packaging, and advertising all have an impact on green brand image of apparel brands. A detailed discussion will be held about the results' theoretical and practical implications.

Keywords: Green brand packaging, Green brand image, Green brand association, Green brand advertising, Green apparel brand

1. Introduction

According to Rajendran (2019), the IPCC (2007) expressed worry that environmental issues like ozone depletion and global warming are being seen as global problems as opposed to just local or national ones. It is now the topic of discussion on a global scale. Concerning topics include species diversity and the depletion of natural resources. Because of these occurrences, which endanger the ecosystem and put the people in risk, countries are being forced to become green (Mohammad and Zakersalehi, 2012). Green is back, as consumers demand more ecologically friendly goods from manufacturers worldwide. In this case, every corporate action and practice must not negatively affect the environment or people. One very significant problem that mankind is now facing is environmental contamination. Global pollution and growing awareness are encouraging customers to choose greener products. The increasing awareness of "green" practices and standards and their effects on the environment has made them essential for organizations. Customers are more aware of their health these days and actively encourage greener living. Customers have more ecologically responsible options thanks to green fabrics. The words "environment" here refers to guidelines that minimize environmental harm and are used to describe legislation, products, and services (Walsh 2013). In the textile industry, chemicals, water, and industrial techniques are often used. (Hsu, Chen, & Lai 2011). The textile industry is considered the backbone of the Pakistani economy since it is the most important industrial sector in terms of the import and export of finished products (Hashim, M., et al 2022). 60% of all Pakistani exports are made up of textiles, making Pakistan the ninth-largest textile exporter in the world. Pakistan's textile exports were valued at $17.67 billion (Pakistan Bureau of Statistics (PBS) 2022). The business is expected to export more than $20 billion in FY 2022. The textile sector, which makes up 46% of all manufacturing, directly employs over 25 million people and accounts for 40% of all industrial employees in Pakistan, according to the Textiles Intelligence report-2022. Additionally, it produces 8.5% of the GDP of the nation. Approximately 2 million people are directly employed in the textile sector via the manufacture of apparel. Furthermore, the garment industry in Pakistan uses 150 million USD of LNG annually, or 9% of all industrial sectors' electrical energy usage. A thorough examination of the existing situation in Pakistan's textile sector reveals that the primary reason for the high rate of waste at clothes manufacturing facilities is a severe deficiency in material recycling. They are thus paying a premium to get rid of textile waste, which eventually damages the reputation of the eco-friendly business. Furthermore, the garment industry in Pakistan is estimated to generate between 25 million and 30 million tons of textile waste annually. Jayasinghe et al. (2010) claim that trimming wastes between 10% and 20% of the fabric's use. Nonetheless, the Pakistani garment sector is having a difficult time maintaining its reputation in international markets. Textile owners are essential to the garment industry's efforts to reduce waste, especially plastic waste. This might be accomplished via a pattern of business transformation that begins to produce environmentally friendly tactics, such packaging and advertising. "Green

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"packaging" refers to the use of environmentally friendly packaging for products (Sigh, 2012: 313). Using non-plastic and recyclable product packaging is one method to achieve this. Customers, on the other hand, want the product's environmental benefits to be highlighted in the advertisements; this is referred to as "green advertising," which is a message of product promotion meant to influence consumers to be environmentally conscious (Banerjee et al., in Parwitaningtyas et al. 2015). The goal of green advertising is to instill a brand image in the minds of customers. A brand image is a collection of brands that people create in their thoughts. A consumer's personality may serve as a motivator in situations when brand loyalists will adhere to the company's image (Morissan 2015; Rangkuti 2010). Due to erratic demand circumstances in the European and North American markets, manufacturers in Pakistan's neighboring countries—China, India, Bangladesh, and Vietnam—are becoming more and more competitive in the garment business. The competitive position of Pakistan's garment business has also been harmed by inadequate brand image and a lack of technological advancements. Researchers and mill managers have lately focused a lot of emphasis on green brand packaging as a means of increasing the global garment industry's profitability. The impact of green brand packaging on customer purchasing decisions (Purnama 2019), buying intentions (Ahmad 2021) and buying behavior (Waqs 2020) has been thoroughly reviewed in the literature to date. An extensive body of recent research has examined the macro-level effects of green packaging (Roper and Parker 2006), consumers' willingness to pay for green packaging (Hao 2019), and the factors that influence green packaging (Singh 2018). Scholars have been studying how consumer choices, behavior, and marketing efforts affect human culture and well-being in relation to packaging. According to Faizal A. & Ratnasari (2019), "there is no significant link with the desire in purchasing environmentally friendly packaging, even when customers already have awareness about environmentally friendly packaging." Green goods do not significantly affect consumer purchases. According to Mantiaha (2016), "the reason why consumers purchase these products is the product's quality." They recognize the damage the firm is causing to the environment; therefore, they avoid purchasing eco-friendly items. The aforementioned study runs counter to that of Atmaja & Utami (2017), who demonstrate that "product packaging and offered products are important factors for green consumers when choosing organic products." Products that are easily recyclable and that employ materials that can be recycled, such old newspapers, are available. This encourages eco-friendly consumer behavior that is beneficial to the environment. Green packaging and green goods have a considerable positive influence on purchase interest, as shown by Santos & Fitriyani (2016). Customers believe that green items are of greater quality than other products, and they also see green products as a way to help safeguard the environment.

There are, however, surprisingly few research examining how green brand packaging affects green brand image in relation to brand association. The present research introduces a novel concept, namely green brand packaging, and investigates its impact on green brand association, green brand image, and green advertising. Furthermore, the mediation effects of green brand promotion and connections are also examined in this research. In the area of branding, this research creates a comprehensive framework for analysing the effects of packaging for green brands. Through the use of its three determinants—green brand packaging, green brand associations, and green brand advertising—this study creates a research framework that benefits brand managers by enhancing the perception of green brands. Because it is tolerant of nonnormal data and delivers enough statistical power and resilience with minimal limitations on sample size and residual distribution, the PLS-SEM approach is adopted (Hair et al., 2017). We use data gathered from consumers of clothing brands in Pakistan's textile sector and apply the PLS-SEM approach to it. This study examines the following queries: 1. Does the packaging of a green brand significantly affect the image of a green brand? 2. Does the packaging for green brands significantly affect consumers' associations with such brands? 3. Does packaging for green products have a big influence on promotion for green brands? 4. Does the affiliation of a green brand have a noteworthy effect on the image of a green brand? 5. Does the image of a green brand be significantly impacted by green brand advertising? 6. Does the link between green brand packaging and green brand image become considerably mediated by green brand association? 7. Does the link between green brand packaging and green brand image become considerably mediated by green brand advertising?

2. Literature Review
2.1. Stimulus-Organism-Response Model
The stimulus-organism-response (S-O-R) model is a paradigm that has been widely used to study human responses to stimuli (Russell 1974, Chang 2011, Choi 2019). This theory's major goal is to increase our knowledge of how consumer brand association (O) is influenced by stimuli associated with green brand packaging (S). These stimuli then further elicit emotions that lead to consumer reactions (green brand image) (Siebent 1996, Gambetti 2012,
Goi 2018). In conventional marketing and consumer behavior research, the S-O-R model has been extensively used. However, it has not been often used in the areas of green brand packaging, green brand advertising, green brand association, and green brand image (Chang 2015). Given the abundance of many stimuli in the context of the environment, one explanation for the dearth of such research might be the wide differentiation of stimuli. It is necessary to investigate the question of how consumer involvement (green brand advertising, green brand association, and green brand image) might be influenced by green brand packaging stimuli (Choi 2019). According to Chang (2015) and Stern (1999), a “organism” is defined as an internal process that has the ability to affect how a person responds to external stimuli. It seems sense to suppose that stimuli may affect consumer reactions by way of the organism's mediation. The study's hypothesis is that, in order for green marketing initiatives to be successful, green brand advertising must operate as stimulus (S); green brand association and advertising must act as the organism (O); and green brand image must act as the reaction (R).

2.2. Green Brand Packaging

Rivals need to create a product that is distinctive or unusual in order to attract customers in a market that is very competitive. Packing is one of the most crucial components of a product's promotion from a marketing one. It has the power to influence a customer's choice at the moment of sale. Additionally, it serves as a conduit for information between the corporate history and the image of a product (Eltayeb and Zailani 2009). Thanks to "self-service," customers may easily search, evaluate, and choose their preferred items in this fast-paced, digital age (Ahmad et al., 2010). Packaging is crucial, particularly when considering a purchase, it might be mentioned. According to Morel and Kwakye's (2012) research, packaging might have an influence long after a purchase is made. He went on to say that packaging has several benefits, including the ability to draw in customers, convey important information about the product, help consumers mentally classify it, and help it stand out from competing goods. Research from the past suggests that packaging may be customised in a variety of ways, including colour, shape, design, and graphics. Packaging represents the fifth "P" in the marketing mix (Nickels and Jolson, 1976). It keeps a product safe, fresh, and ready for consumption. It also sends crucial brand signals to customers and fulfils the manufacturer's regulatory requirements. These factors influence the garment brand that buyers choose. These days, a lot of customers are more conscious of their purchases as they affect a lot of environmental issues. Other packaging categories include primary, secondary, and tertiary (Vidales Giovanni et al., 1995), passive and active (Southgate, 1994), pre- and post-consumption (Prendergast and Pitt, 1996), and more. Three types of packaging are identified by De Faultrier and Towers (2011): tertiary packaging, which safeguards both primary and secondary packages within a pallet or unit load, secondary packaging, which holds and protects a group of primary packages, and primary packaging, which shields the product directly from the environment. Package branding is one of its pre-consumption features (Deng and Kahn, 2009). However, packaging partially loses its usefulness after use, and incorrect disposal of discarded packaging seriously pollutes the environment. In order to maximise the post-consumption use of such packaging materials, businesses are therefore investigating novel designs. In several nations, package types including "sustainable packaging," "ecological packaging," and "environmentally friendly packaging" have gained a lot of traction. The major purpose of developing green packaging is to safeguard both the environment as well as human beings. Green packaging is growing significantly and becoming better very quickly (Younus et al., 2015). There are over thirty distinct green label programmes in operation at the global platform. According to a study by Mohammad and Zakersalehi (2012), Asian countries including Japan, China, Korea, Thailand, India, Singapore and Malaysia have all begun their own eco-labelling initiatives. According to Sinnapann and Abd Rahman, "green packaging" refers to any packaging that requires less material during production, is recyclable or reused, and may satisfy market standards for both cost and performance. It can also be created from reputable and safe sources of resources. At now, it is known as the "new concept of sustainability" and is becoming more and more popular in trade. It's good news for the future since it benefits both people and the environment (Kong et al., 2014). Conversely, green packaging protects the environment, makes it simple and safe to utilize the contents, and distributes and promotes products in an efficient manner.

2.3. Green Brand Advertising

Green brand advertising is associated with a company's product marketing (Chang, 2012). Following Tiwari's lead (Tiwari 2008), three categories of green advertising are recognized: product campaigns that focus on the biophysical environment, product campaigns that promote green lifestyles, and corporate campaigns that emphasize environmental responsibility. The campaign presented the customer's perspective (Javalgi 2011), which ultimately led to the customer's opinion of the firm and its goods (Jayaram 2015). A well-executed green advertising campaign may enhance a company's reputation (Zdravkovic 2010). Green advertising refers to a company's efforts to increase the value of its products by exposing customers to environmentally friendly products.
Additionally, some people find that green advertisements are excellent, realistic, enjoyable, and persuasive (D'Souza 2005).

2.4. Green Brand Association

A collection of brand-related beliefs, attitudes, ideas, knowledge, concepts, and methods make up the green brand association (Keller, 2009). According to Kotler and Gertner (2002), it encompasses all of the experiences, attitudes, perceptions, emotions, colours, pictures, and ideas that a consumer associates with a particular brand. In a study on the relationship between green brand association and purchase intention, Dissabandara (2020) discovered that customers' purchase intentions are strongly correlated with green brand association because it gives them positive information, a positive outlook, and a reason to purchase a good or service. Research has shown that a fundamental element that significantly influences brand equity is green brand association (Gordon et al., 2016; Ahsan et al., 2020). Given that consumers have a connection with green brands, this is the most crucial component of brand equity (Keller, 1993).

2.5. Green Brand Image

A business may improve the way customers image its brand by using marketing techniques including price and product quality (Theotokis 2012). Environmentally friendly issues are working with it to strengthen its marketing strategy (Wu and Y Chen 2014), with the hope that this would help the company's green brand image. Research has shown that the influence of a green brand image may alter consumer behavior in a variety of ways, including purchasing intentions (Rahmi, 2017) and, crucially, customer understanding of green issues when it comes to environmentally friendly products (Suki, 2013). Customers' perceptions of companies that are environmentally conscious shape their view of green brands (Mourad, 2012). It indicates that a company's green brand image is influenced by both its environmental practices and the products that customers may purchase. Accordingly, the company's current marketing strategy takes the problem of environmental sustainability into account (Grant 2008). It is well recognized that many metrics, including benchmark, reputation, performance, concern, and trust worthiness, may be used to gauge a green brand's image (Chen 2010).

2.6. Green Brand Packaging and Green Brand Image

Eco-friendly or sustainable packaging, sometimes referred to as green brand packaging, is made entirely of materials that are found naturally, is recyclable or reusable, degrades easily, and promotes environmental sustainability throughout the course of its lifetime. Furthermore, according to Zhang (2012), green packaging is secure and beneficial for both human and animal health as well as the environment. Nonetheless, as environmental concerns grow, customers are becoming more aware of green brand packaging. Since a successful green stance requires brand uniqueness and a unique selling advantage, companies often affect customers' opinions of green goods. Recent studies have shown that goods lacking in green characteristics and qualities are less successful commercially (Gong 2020; Swenson 1997; Martins 2021). If a company successfully communicates the unique green value that it generates via its ecologically friendly goods, customers will identify it as a "sustainable brand" (Hartmann 2005; Lin 2017). Studies show that successful green branding activities also depend on green positioning (Zameer 2020). Previous research on green goods and activities connected to the environment indicates a positive association between the green qualities of the product and green purchase intentions. According to a different survey, European customers are generally positive about products with eco-brands (Wüstenhagen 2006; Sreen 2018). Consequently, the following formulation of the first hypothesis might be made: First hypothesis (H1). Green brand packaging has a positive and significant impact on green brand image.

2.7. Green Brand Packaging and Green Brand Associations

Brand association, which refers to customer knowledge connected to a certain brand, is seen as a crucial aspect of brand equity (Aaker 1991). Due to the strategic significance of brand communication in the highly competitive branding environment, brand associations are now very important (Keller 1993). Despite research on the perceived value of green features in products (Chen 2012), the function of green branding is still not thoroughly examined. Green branding is a useful instrument for implementing sustainable consumption, which is becoming more and more important in the market. The purpose of this research is to examine how the major factors influencing green branding affect consumers' intentions to make green purchases. Delivering green product features connected to the company's sustainability builds green brand connections (Hartmann 2206). Three characteristics of brand associations, according to (Keller 1998), include strength, favorability, and distinctiveness. According to Chen and Chang (2016), "green brand associations" are defined in this research as the degree to which consumers are aware of green brands as well as their attitudes and assessments of them. The constraints of functional green branding stem from the fact that buyers are often not able to discern particular advantages from a product's environmental effect (Chen 2010). It's possible that green buying intentions are not sufficiently driven by green perceived value (Chen 2012). Customers will be more likely to make purchases from a brand and have a stronger sense of brand loyalty if it can make them feel joyous, thrilled, or content (Chaudhuri and Holbrook 2001).
giving targeted consumers information about the environmental aspects of green goods, green brands may arouse their affinities with green brands. Given the emotional advantages that green brands actively invoke, it is possible to establish a powerful and successful link with green brands (Hartmann 2006). Green companies may utilize consumer associations to connect their products with feelings in order to elicit a favorable reaction from target consumers once they use a particular brand.

Excessive product packaging has been linked in the past to customer brand attitudes and awareness of green brands, which in turn have a favorable association with green brand attachment (Kerdpitak, 2019; Chen, 2017). Previous studies suggest that the primary factor for determining the image of a green brand might be the green brand packaging. This research makes the following claims based on the aforementioned claim, arguing that green brand packaging would enhance green brand associations:

Hypothesis 2 (H2). Green brand packaging has a positive and significant impact on green brand association.

2.8. Green Brand Packaging and Green Brand Advertising

The most effective strategy used by marketers and advertisers to stimulate consumers' interest is advertising, which informs consumers about the specifications and characteristics of products (Ahmad and Thyagaraj, 2015). According to Iyer and Banerjee (1993), green advertising responds to consumer demands, environmental concerns, and health difficulties by including messaging about biodiversity, sustainability, and non-contamination. Scholars have examined the ways in which environmental claims made in marketing campaigns impact the public and, more importantly, businesses that want to attract investment (Kumar, 2017). Green advertising addresses environmental, economic, and sustainability concerns and satisfies the demands and expectations of environmentally conscious consumers (Kumar, 2017). (Zinkhan and Carlson, 1995). There are several facets to green advertising; some concentrate on educating consumers about the environment and natural resources, while others emphasize trade to boost sales of goods and services. Many concerns are brought up about strengthening and expanding the green brand connection in order to cultivate a positive long-term consumer perception of the brand (Banerjee et al., 1995). Frank & Hultqvist (2019) state that "product packaging that makes green claims is more likely to be purchased by consumers than packaging that makes neutral claims. Satuto (2018) states that "converting from standard packaging to environmentally friendly packaging may influence customers' decisions about which items to buy. This alludes to the present consumer trend of choosing environmentally friendly items. According to the findings of many research, "green packaging has a positive and significant effect on green advertising. “The practicality of ecologically friendly packaging, such as its ease, reusability, and protective qualities, is becoming more important to customers, according to study by Hao et al. (2019). A crucial component of marketing an eco-friendly company is green brand packaging,” claims Wahab (2019). According to Orzan et al. (2018), the majority of respondents were aware of how packaging affects the environment and that buying decisions were motivated by a desire to preserve the environment, recycle, and feel responsible for the environment. It makes sense that there would be a greater chance of purchasing eco-friendly clothing if eco-friendly packaging was promoted more effectively.

2.9. Green Brand Associations and Green Brand Image

According to Anderson (1983), one kind of intricate and all-encompassing model of long-term memory is brand associations. Brand associations, in accordance with Keller (1993), are what make up a consumer's view of a particular brand. Brand connections stored in consumer memory may thus be a reflection of brand image (Keller, 1993). Because brand connections represent foundations that may affect customers' purchase choices, they provide tremendous value. Therefore, through fostering a sense of legitimacy and repute for the brand, brand associations may affect customers' perceptions of green brands. Therefore, the present study posits that green brand associations have a beneficial impact on green brand image.

2.10. Green Brand Advertising and Green Brand Image

According to Chen (2008), a green brand image is a collection of customer views that a company is still committed to protecting the environment. Wu and Chen's (2014) study revealed a favorable correlation between green brand image and green purchasing intention; Rizwan et al.'s (2014) research also revealed this link. Wang (2014) discovered that the desire to make green purchases was influenced by the image of green brands. According to recent studies, there is a good trend in the way that green advertisements, with its many components such as consumer trust, viewer attitudes, and brand image, greatly influence consumers' purchasing behavior towards green products. Customers' view of a brand is represented by its brand image, which may assist them in assimilating certain brand information and therefore eliciting favorable feelings toward the brand. The whole procedure encourages customers to buy goods (David 1991). Brand image, which is a generic term for emotional responses that have a little bearing on sales, is the psychological influence of a particular brand when it is used and bought by customers (Song 2021). The development of a favorable brand image is crucial because it gives customers a benchmark when they lack sufficient discernment about the qualitative attributes of goods and
services, and it therefore becomes a deciding factor in their purchasing choices. Furthermore, green advertisements should disclose that the product is geared toward eco-friendly items and encourage customers to use it (Rizwan et al. 2014). According to research by Rizwan et al. (2014), consumers' intentions to make green purchases are influenced by green advertising. According to Kong et al. (2014), green advertising consists of the following: green ads are always reliable; consumers believe the information printed on eco-labels to be accurate; eco-label information is simple to understand; green ads are visually appealing; and the content of green ads is relevant to my everyday life. According to Rahbar and Wahid (2011), the main objective of green advertising is to influence customers' "traditional purchase behavior by persuading them to purchase products that either have a positive or non-negative impact on the environment." Manaktola and Jauhari (2007) state that the business needs to make its green efforts clearly evident. According to Batool and Iqbal (2016), there is a significant and positive correlation between green advertising and consumer purchases. The goal of advertising is to alter consumers' perceptions of goods and brands as well as their appraisal, affection, knowledge, meaning, beliefs, and attitudes (Peter & Olson, 2000). Thus, green brand image may be impacted by green brand promotion.

2.11. Mediation Role of Green Brand Association
By providing consumers with green environmental knowledge regarding green product qualities, green branding may elicit green brand connections from targeted buyers. Green branding may elicit unique emotional advantages that can lead to strong and successful linkages with the brand (Hartmann and Ibáñez, 2006). Campaigns for communication and advertising may link green brands together. According to Praxmarer and Gierl (2009), associations are the memories and imaginations that stimuli arouse in recipients. Emotions and sentiments may be triggered by brand connections (Escalas, 2004; Schindler and Holbrook, 2003; Sujan et al., 1993). One kind of intricate and all-encompassing long-term memory model is brand associations (Anderson, 1983). Keller (1993) asserts that brand associations are what make up a consumer's picture of a particular brand, which relates to opinions about the brand. Thus, brand image may be reflected via brand associations that consumers retain in their memory (Keller, 1993).

2.12. Mediation Role of Green Brand Advertising
According to Rizwan et al. (2014), green brand advertising informs customers that the product has been focused on ecologically friendly items and encourages them to use the product. According to Kao and Du (2020), green advertising is necessary but insufficient to address every issue that arises in green marketing. The goal of advertising is to alter consumers' perceptions of goods and brands as well as their appraisal, affection, knowledge, meaning, beliefs, and attitudes (Peter & Olson, 2000). Introducing or elucidating the promoted items may be achieved via marketing communication through advertising promotion activities. In order to persuade customers to purchase or use environmentally friendly clothing brands, environmental advertising, also known as green brand advertising, offers details on eco-friendly features of a product or service (Prastiyo, 2016). Customers are prepared to pay more for environmentally friendly items, therefore in order to capitalize on these new possibilities, marketers must enhance their comprehension of how customers react to environmental promises in their advertising. Advertisers will be able to increase the efficacy of their communications in environmental marketing with the help of this information (Chan, 2004). According to Maziiriri (2020), obtaining a competitive edge and improving corporate performance might also be facilitated by green packaging. According to research, package materials have purposes beyond only drawing in customers (Carter & Ellram, 1998). Although most businesses provide recyclable and ecologically friendly packaging, consumers still want higher-quality packaging materials. From the standpoint of the consumer, a packaging should be able to prolong the product's life, prevent damage, and make stacking easier (White et al. 2015).

Fig: 01 Measurement Model
3. Methodology
The Statistical Package for Social Science (SPSS) version 22 was used to assess descriptive statistics including mean, standard deviation, frequency, percentage, and correlations before the PLS-SEM analysis. Second, the hypotheses were assessed using SMART PLS 3.0, a comprehensive structural equation modeling program (Amin, Azhar, Amin, & Akter, 2015). The route analysis is used in the structural model, and bootstrap (5000 size) approaches are used to assess the relevance of direct and mediated interactions. PLS has no trouble with identification when dealing with single-item conceptions and reflective and formative assessment approaches. It is suitable for theory development and prediction applications (Hair et al., 2013; Gefen et al., 2000).

3.1. Population, Sample and Data Collection
The definition of population is the total number of individuals living in a certain geographic region. In order to do study on Pakistani citizens residing in key cities such as Lahore, Karachi, Islamabad, Multan, and Bahawalpur, the researcher chooses consumers of green clothes brands. In relation to the study, there is a larger network of individuals to get in touch with. Pakistanis have a very similar cultural heritage and typically behave in a way that is very linked to other individuals. Consequently, this study may have rather wide-ranging impacts that benefit brand managers and marketers not only in Pakistan but also in other Asian nations. Purposive sampling was used to gather data based on consumer location. The researcher gave self-administered questionnaires to consumers of green apparel brands in the chase up shopping malls and well-known markets of Pakistan (Lahore, Karachi, Islamabad, Multan, and Bahawalpur). Shopping Centre management formally approved the researchers. The goal of the study was explained to the participants prior to the distribution of the questionnaires. Every responder gave their informed permission. During the data gathering phase, the researchers adhered to all research ethics. Between September and December 2022, 750 questionnaires were issued for the research, of which 150 were delivered in each of the Pakistani cities of Lahore, Karachi, Islamabad, Multan, and Bahawalpur. 510 of the 750 surveys were returned, resulting in a 68% response rate. After each questionnaire was reviewed for validity, a total of 446 were used for data analysis; of these, 120 (26.9%) came from Karachi, 110 (24.7%) from Lahore, 100 (22.4%) from Islamabad, 75 (16.8%) from Multan, and 41 (9.2%) from Bahawalpur.

3.2. Research Measures
Empirical research was carried out to examine the link between the construct in order to accomplish the aforementioned goals. a well-organized survey built upon the insights from earlier, relevant research. There were two sections to the questionnaire's design. Data and information regarding the respondents' demographics, including gender, age, education, income, and employment, as well as how they found out about green clothing manufacturers, were included in Part 1. Part 2 conducts a thorough literature study to investigate the key factors. A total of twenty-eight items were adopted from various sources to measure various characteristics. For each of the assessed constructs, The questions are posed on a five-point Likert scale, with 1 representing "strongly disagree" and 5 representing "strongly agree." Three experts evaluated the measuring scales and technique to make sure the questionnaire's content, face validity, and structure were adequate. To verify the questionnaire's applicability and articulation, 50 participants participated in individual encounters throughout the pilot testing phase. Prior research (Juwaheer 2012) provided the green brand packaging, which was determined using five goods. The green brand connection was calculated using five elements and was adapted from Chang and Chen (2014). Additionally, Mkik et al. (2017), which also included five elements, was the source of the green brand advertisement. In the end, five components from Chen (2008) and Yadav et al. (2016) were used to create the green brand image.

3.3. Characteristics of Respondents
Table 1 displays the descriptive analysis of Study 3. Among the 446 valid respondents in this survey, 302 were female (67.7%), and 256 (57.4%) were between the ages of 25 and 34, with 164.00% being between the ages of 35 and 44. 62.3 percent of the 278 respondents have a bachelor's degree. When it came to monthly income, the majority of respondents (59.9%) said they made between PKR 41000 and PKR 90000. When asked how long they had been using green clothing brands, the majority of respondents (54.9%) said they had been using them for more than a year to three years. The majority of respondents (58.7%) said that they discover about green clothes manufacturers via advertising when asked how they find out about them. Understanding the features of the consumers of green clothes brands and analyzing the study results are made easier with the help of the demographic data.
Table 1. Demographics Statistics of the Respondents.

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Frequency(n=446)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>144</td>
<td>32.3</td>
</tr>
<tr>
<td>Female</td>
<td>302</td>
<td>67.7</td>
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<tr>
<td><strong>Age</strong></td>
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<tr>
<td>Less than 25 years old</td>
<td>51</td>
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<tr>
<td>Between 25 and 34 years</td>
<td>256</td>
<td>57.4</td>
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<tr>
<td>Between 35 and 44 years</td>
<td>73</td>
<td>16.4</td>
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<td>Between 45 and 54 years</td>
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<td>9.0</td>
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<td>More than 54 years old</td>
<td>26</td>
<td>5.8</td>
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<tr>
<td><strong>Qualification</strong></td>
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<td>Intermediate</td>
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<td>Bachelors</td>
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<tr>
<td>Masters</td>
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<td>10.3</td>
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<tr>
<td>Doctoral degree</td>
<td>16</td>
<td>3.6</td>
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<tr>
<td>Any other</td>
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<td>3.8</td>
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<td><strong>Income (Monthly)</strong></td>
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<tr>
<td>Between 10,000 and 4,0000</td>
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<td>Between 41,000 and 90,000</td>
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<td>More than 90,000</td>
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<td>Public official</td>
<td>121</td>
<td>27.1</td>
</tr>
<tr>
<td>Professional technician</td>
<td>225</td>
<td>50.4</td>
</tr>
<tr>
<td>Researcher</td>
<td>31</td>
<td>7.0</td>
</tr>
<tr>
<td>Freelancers</td>
<td>47</td>
<td>10.5</td>
</tr>
<tr>
<td>Student</td>
<td>22</td>
<td>4.9</td>
</tr>
<tr>
<td><strong>Duration of using green apparel brands</strong></td>
<td>12</td>
<td>2.7</td>
</tr>
<tr>
<td>Less than 6 months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 months- One Years</td>
<td>119</td>
<td>26.7</td>
</tr>
<tr>
<td>Greater than- One year- 3 years</td>
<td>245</td>
<td>54.9</td>
</tr>
<tr>
<td>Greater than 3 years</td>
<td>70</td>
<td>15.7</td>
</tr>
<tr>
<td><strong>The way to learn about green apparel brands</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recommended by Alipay</td>
<td>12</td>
<td>2.7</td>
</tr>
<tr>
<td>Publicity from friend</td>
<td>103</td>
<td>23.1</td>
</tr>
<tr>
<td>Advertising</td>
<td>262</td>
<td>58.7</td>
</tr>
<tr>
<td>Others</td>
<td>69</td>
<td>15.5</td>
</tr>
</tbody>
</table>

4. Evaluation of the Measurement Model

Hair (2011) states that although covariance-based structural equation modelling (CB-SEM) has been the dominant approach since its introduction in the 1980s, partial least square SEM (PLS-SEM) has garnered a lot of interest lately. PLS-SEM concentrates on maximizing the explained variance of the dependent latent components, while CB-SEM attempts to replicate the theoretical covariance matrix instead of explained variance. Because PLS route modelling can model latent variables under situations of non-normality distribution with small to medium sample sizes, it has become more and more popular among marketing researchers (Hair et al., 2011). PLS has been acknowledged as a useful analytical method, especially for investigations that concentrate on outcome prediction (Chin, Marcolin, & Newsted, 2003). According to Hair et al. (2011), PLS-SEM route modelling may be a "magic bullet" for determining parameters that would maximize the dependent constructs' explained variance (R2 value). There are a number of criteria to assess the validity and reliability of the measurement model, according to Hair et al. (2011). The coefficient of determination (R2), which calculates the amount of variation explained by each endogenous latent variable, is the first criteria. R2 values of less than 0.19 are regarded as poor, 0.33 as moderate, and more than 0.672 as large, according to Schroer & Herterl (2009). In order to ensure that the latent variables
can explain more of the average, the second criteria, the average variance extracted (AVE), which evaluates convergent validity, must be more than 0.5 (Henseler et al., 2009). The third requirement is the composite reliability (CR), which has to be higher than 0.6 to attest to the robustness of the variation that each indicator shares (Nunnally & Bersin, 1994). The Cronbach's alpha coefficient, which is the fourth requirement, has to be more than 0.7 in order to support the study construct's internal consistency. The values of the Fornell-Larcker criteria, or discriminant validity, make up the fifth criteria. It is possible to confirm the measurement model's validity and reliability by using the aforementioned standards. The coefficient of determination (R2) for the three endogenous latent variables—0.491 for GBA, 0.111 for GBAD, and 0.871 for GBI—is shown in Table 2. Schroer and Herterl (2009) regarded these R2 coefficients as follows: GBI as large, GBA as moderate, and GBAD as weak. The constructs' AVEs, which vary from 0.634 to 0.732 and are much higher than the benchmark of 0.5 as advised, show that the study constructs have acceptable reliability and convergent validity.

The constructs' CR values ranging from 0.894 to 0.932—much over the 0.6 cutoff—it is evident that the variation shared by the individual indicators is strong. We may go on to an assessment of the structural model because the aforementioned talks support the conclusion that the research model's convergent validity and reliability are adequate. Discriminant validity is the measure of a construct's uniqueness from all other constructs in the investigation. In this research, the Fornell-Larcker Criterion (table 4) is used to evaluate discriminant validity.

### Table 2. R Square

<table>
<thead>
<tr>
<th>Construct</th>
<th>R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>GBA</td>
<td>0.491</td>
</tr>
<tr>
<td>GBAD</td>
<td>0.111</td>
</tr>
<tr>
<td>GBI</td>
<td>0.871</td>
</tr>
</tbody>
</table>

### Table 3. Construct Reliability and Validity

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Code</th>
<th>Loading</th>
<th>α</th>
<th>CR</th>
<th>AVE</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Brand Packaging</td>
<td>I acknowledge that the information on packaging of apparel brands is an important criterion.</td>
<td>GBP1</td>
<td>0.848</td>
<td>0.889</td>
<td>0.919</td>
<td>0.693</td>
<td>(Juwaheer 2012).</td>
</tr>
<tr>
<td></td>
<td>It is important to reuse or recycle packaging of apparel brands after use.</td>
<td>GBP2</td>
<td>0.834</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Biodegradable packaging of apparel brands is an important consideration for green customers</td>
<td>GBP3</td>
<td>0.840</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I feel good about buying apparel brands which are less damaging to the environment</td>
<td>GBP4</td>
<td>0.834</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I trust well known green branded products in Pakistan</td>
<td>GBP5</td>
<td>0.808</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Green advertising is essential to recognize environmentally friendly products in apparel brands.</td>
<td>GBAD1</td>
<td>0.840</td>
<td>0.909</td>
<td>0.932</td>
<td>0.732</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Green advertising reinforces the environmental commitment of the brand/product in apparel brands.</td>
<td>GBAD2</td>
<td>0.827</td>
<td></td>
<td></td>
<td></td>
<td>(Mkik et al., 2017)</td>
</tr>
<tr>
<td></td>
<td>Green advertising reinforces the ecological image of the brand in apparel brands.</td>
<td>GBAD3</td>
<td>0.881</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Green advertising attracts the attention of consumers in apparel brands.</td>
<td>GBAD4</td>
<td>0.871</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Green advertising is effective at changing consumer behavior in apparel brands. You can recognize this green apparel brand among other competing brands because of its environmental commitments. You are aware of this green apparel brand because of its environmental reputation. Some environmental characteristics of this green apparel brand come to the top-of-mind in your consideration set quickly. You can quickly recall the green apparel brand image of this brand. You can easily figure out this green apparel brand because of its environmental concern. To implement green practices, green apparel brands are professional. To implement green practices, green apparel brands are successful. To implement green practices, green apparel brands are having a good reputation. To implement green practices, apparel brands are honest. To implement green practices, green apparel brands are concerned.

Table 4. Discriminant validity - Fornell-Larcker Criterion

<table>
<thead>
<tr>
<th></th>
<th>GBA</th>
<th>GBAD</th>
<th>GBI</th>
<th>GBP</th>
</tr>
</thead>
<tbody>
<tr>
<td>GBA</td>
<td>0.796</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GBAD</td>
<td>0.583</td>
<td>0.856</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GBI</td>
<td>0.729</td>
<td>0.335</td>
<td>0.844</td>
<td></td>
</tr>
<tr>
<td>GBP</td>
<td>0.700</td>
<td>0.333</td>
<td>0.926</td>
<td>0.833</td>
</tr>
</tbody>
</table>

4.1. Path model
According to the first hypothesis (H1), the packaging of green brands positively impacted the image of green brands. According to the research, green brand image was positively impacted by green brand packaging. The high correlation between green brand image and the path coefficient value of 0.808 and t-value 23.892 at < 0.001 was observed. The findings corroborate and highlight the significance of H1. The hypothesis's findings are consistent with the findings of a research by Majeed (2022) that looked at how green brand advertising affects the perception of green brands. According to the second hypothesis (H2), green brand association was positively impacted by green brand packaging. According to the research, green brand association was positively impacted by green brand packaging. The link between green brands and the path coefficient value of 0.700 and t-value of 26.467 at < 0.001 demonstrated a robust relationship. According to the third hypothesis (H3), green brand packaging influenced green brand promotion in a favorable way. The research found that green brand advertising benefited from green brand packaging. The strongest correlation with green brand advertising was shown by the
According to the fourth hypothesis (H4), green brand image is enhanced from green brand association. The hypothesis’s findings are consistent with Chen’s (2020) research, which examined how buying behavior is impacted by green brand connections. According to the study, green brand image benefited from green brand association. With a t-value of 5.070 at < 0.001 and a path coefficient value of 0.189, the green brand image was strong. According to the fifth hypothesis (H5), green brand image was positively impacted by green brand advertising. The substantial correlation between green brand image and the path coefficient value of 0.044 and t-value of 2.269 at < 0.001 was observed. According to the sixth hypothesis (H6), there was a partial mediation effect between green brand image and green brand packaging when there was a green brand connection. At less than 0.001, the route coefficient value is 0.132. The influence of green brand packaging on green brand image was somewhat mediated by green brand advertising, according to the seventh hypothesis (H7). At less than 0.001, the route coefficient value is 0.015. Table 5 displays the all-path outcomes.

![Figure 2. Results of Structural Equation Modeling for Conceptual Model](image)

### Table 5. Path Analysis

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>Path coefficient</th>
<th>t value</th>
<th>P Value</th>
<th>Hypothesis Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>GBP -&gt; GBI</td>
<td>0.808</td>
<td>23.892</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>GBP -&gt; GBA</td>
<td>0.700</td>
<td>26.467</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>GBP -&gt; GBAD</td>
<td>0.333</td>
<td>8.730</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H4</td>
<td>GBA -&gt; GBI</td>
<td>0.189</td>
<td>5.070</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H5</td>
<td>GBAD -&gt; GBI</td>
<td>0.044</td>
<td>2.629</td>
<td>0.009</td>
<td>Supported</td>
</tr>
<tr>
<td>H6</td>
<td>GBP -&gt; GBAD -&gt; GBI</td>
<td>0.015</td>
<td>0.000</td>
<td>Partial Mediation</td>
<td></td>
</tr>
<tr>
<td>H7</td>
<td>GBP -&gt; GBA -&gt; GBI</td>
<td>0.132</td>
<td>0.000</td>
<td>Partial Mediation</td>
<td></td>
</tr>
</tbody>
</table>

### 5. Results and Discussion

This research adds fresh perspectives to the expanding corpus of work on brands and associated ideas. Following notable results, the marketing material will be enhanced in the following ways. Since the notion of "green marketing" is widespread and global, customers are adapting their shopping habits to reflect their increased environmental consciousness. Therefore, the current research offers some preliminary insights into the significance and influence of packaging for green brands on consumers' perceptions of green clothes brands. Since Pakistan has only just begun to see the growth of green garment brands, brand managers are needed to evaluate a variety of variables depending on their professional competency, including material, form, figure, and printing technology. It is anticipated that customers will reinforce their green brand packaging, governments will build a green culture, and brand managers will oversee green businesses. Pakistani green clothes brand packaging will undoubtedly enjoy a fair market share with the combined efforts of businesses, brand managers, governments, and consumers; Pakistani apparels brands will quickly penetrate the global market with their Pakistani green brand.
image. Pakistan's green clothing brand will therefore get international recognition and acceptance. Green advertising and the marketing approach used by companies to enhance the image of their clothes brands via environmental issues are strongly connected (D'Souza 2005). The corporation develops such tactics based on factors such as ad serving convenience (Hartmann 2009), ad appearance that assures customers (Rahm 2017), customer-trustworthy advertising information (Kotler 2000), and the advantageous value of the advertisements that are supplied (Hasan 2012). In actuality, every commercial that is produced aims to influence the behavior of an eco-aware consumer. whereby the quality of customer service for green products is becoming better. Reviewing the characteristics of the respondents reveals that the majority are female and have a sufficient educational background. This indicates that consumers have evaluated information about green advertising, making it more palatable and enhancing their favorable opinions of ecologically friendly products. It goes without saying that marketers should take note of this discovery, as it may help them increase consumer interest in purchasing organic products by including environmental issues into their advertising. A portion of this study wraps up earlier research since the review of the research findings really seems to be the same as those of earlier studies from Rahmi et al. (2017) and Rahim et al. (2012). The management of the garment company must also focus on developing a green brand connection and image. Buying and utilizing green products as part of a lifestyle, educating customers about the benefits of such a lifestyle, or connecting the product with other items that inspire customers to adopt a greener lifestyle might all be beneficial. A firm that offers environmentally friendly products develops a green brand image (Gao 2016). These photos have taken some time to produce; the corporation must take its time and use discretion while doing so (Aman 2012). Generally speaking, a company's brand image may influence how its customers see it (Kull 2016). It affects consumer purchasing interest as well as other customer behaviours, such as trust (Wang 2014; Kim 2016). The goal of a company's marketing strategy for a green brand image is to get benchmark value, the company's reputation, performance, care for environmentally friendly products, and consumer trust (Rahmi 2017). Improving the company's image among consumers is undoubtedly the goal of improving the green brand. However, research suggests that the company's green brand linkage has lately improved customers' perceptions of the green brand. If nothing else, this research has identified the variables (such as green brand packaging and green brand promotion) that have the power to alter consumers' associations with green brands, which are based on their attitudes towards the brands of environmentally friendly products (Rahmi 2017).

5.1. Contributions
We provide two theoretical contributions in this work. Initially, we expanded the notion of environmentally friendly brand packaging, association, promotion, and image to include green fashion brands. As a consequence, brand managers of eco-friendly clothing should enhance customer associations with their brands via eco-friendly packaging and advertising if they want to improve the perception of their brand. Eco-labeling, sustainability reports, and green packaging are examples of green advertising that brand managers should concentrate on since they help strengthen consumer associations with the brand and, eventually, improve the image of the brand. Secondly, no research has been done before to investigate the connections between green brand image, green brand association, green brand packaging, and green brand advertising. Our study's approach is empirically supported by data gathered from Pakistani purchasers of eco-friendly clothing. Regarding the connections between green brand packaging, green brand association, green brand advertising, and green brand image, the results close a gap in the branding and marketing literature. In order to strengthen the "greening" concept, green marketers and practitioners should take into account the significance of green brand association. The study's findings demonstrated that consumers' favourable perceptions of green clothing brands are likely to be enhanced by the value of green brand packaging and green advertising. As green brand packaging becomes more refined globally, companies are beginning to see the need for environmentally friendly product issues in their marketing strategies, with the goal of enhancing their customers' perception of their green brand. In fact, a marketing tactic like green brand promotion may influence consumers' perceptions of green brands. Therefore, in addition to observing the company's green brand image, certain instances of green brand advertising that are pleasant, compelling, realistic, and suitable for conducting advertising need to become essential considerations when executing marketing strategy. Still, particularly for the clothing industry.

5.2. Limitations and Future Research
Even while the current study expands on the body of research on brand management with robust empirical data and offers practical and scholarly consequences, there are still some gaps that might lead to new directions for future study. First off, since this research was exploratory in nature, it was limited to a single category of clothing companies. Second, since the findings are Pakistani-specific, there isn't much proof of their generality. The relationships between green brand packaging, green brand association, green brand advertising, and green brand image of apparel brands are explored in some detail in this research, but further research may aim to replicate
these findings with a study of border brand categories and offer more insights into the nature of these relationships between various regions or nations.

References


