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Green Marketing, Purchase Intention and the Role of Green Brand Image as a Mediator

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ABSTRACT

The current study is conducted to examine the link between green marketing and purchase intention through green brand image as a mediator variable among university students of Khyber Pakhtunkhwa (KP), Pakistan. With the rising environmental issues becoming major determinants for consumer behavior, many organizations have started using green marketing practices in order to make consumers aware and make purchase decisions accordingly. A quantitative cross-sectional research design is used in the current study. Data has been collected from 584 BS level students of private universities of KP through the use of structured questionnaire. Well-known measures have been taken from prior literature and have been analyzed through SmartPLS 4. Results show that green marketing has positive effects on purchase intention and significantly improves the green brand image. Also, green brand image has positive effects on purchase intention and partially mediates the relationship between green marketing and purchase intention. This study provides the organizations which are focused on youth consumers should use environmentally responsible marketing practices to develop a good brand image.

Keywords: Green Marketing; Purchase Intention; Green Brand Image; Mediation*This is an open access article distributed under the terms of the Attribution Creative Commons-Noncommercial (CC BY-by 4.0) (https://creativecommons.org/licenses/by/4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.*

INTRODUCTION

Environmental sustainability has become one of the major issues of our time because of environmental degradation, climate change, pollution, and the depletion of natural resources. Today, governments, companies, and consumers acknowledge the need for environmentally sustainable practices that would ensure minimum negative effect on the environment and contribute to the economic development. Organizations started to move from conventional marketing methods towards environmentally sustainable ones known as green marketing. Green marketing involves the design, production, promotion, pricing, and distribution of products and services that do not pose threat to the environment, at the same time, meeting consumer needs (Polonsky, 1994; Peattie & Crane, 2005). With the growing environmental awareness, green marketing became a necessity for firms in order to gain competitive advantage and promote environmental sustainability (Chen & Chang, 2012). Consumers today understand the environmental impact of their purchases. Today, consumers do not evaluate only the quality, price, and functionality of the product but also its environmental implications. This increased environmental awareness has led companies to focus on investing in sustainable production methods, recyclable packaging, green marketing, and sustainable

logistics systems as ways
to attract environmentally aware consumers (Papadas et al., 2017). In this regard, green marketing has transformed from a unique promotion method into an important part of sustainability strategies in firms. Companies which effectively communicate their commitment to the environment will be able to attract environmentally aware consumers, increase customer satisfaction and enhance customer loyalty (Chen, 2010; Rahbar & Wahid, 2011). Among many other effects of green marketing, purchase intention has been extensively researched since it indicates consumer's likelihood to buy environmentally friendly products in the future. This term is viewed as a strong predictor of buying behavior and refers to consumers' intentions to buy some certain product (Ajzen, 1991). Based on the Theory of Planned Behavior (TPB), people are more likely to perform a certain action when they have positive attitudes towards the action, see social pressure and perceive control over performance of that action (Ajzen, 1991). In relation to green consumption, the success of green marketing may positively affect consumers' attitude toward green products and therefore enhance their intention to buy green products (Paul, Modi, & Patel, 2016). Numerous empirical studies confirm that consumers with exposure to environmental claims and sustainable marketing campaigns display higher purchasing intention compared to those with

exposure to traditional marketing campaigns (Chen & Chang, 2012; Yadav & Pathak, 2017). Although green marketing directly affects consumers' purchase intention, the contemporary research shows that the impact of green marketing on consumers' purchase intention is commonly mediated by consumers' perception of environmental credibility of a company, namely green brand image. The concept of green brand image includes consumers' general perception that the brand cares about environmental protection and sustainability through its products and operations (Chen, 2010). Positive green brand image increases consumers' trust, lowers environmental risks, improves attitude toward the brand, and leads to higher purchase intention of green products (Keller, 1993; Chen, 2010). Consumers favor green brands since they are considered more reliable and ethical (Hartmann & Ibáñez, 2006). In this case, those organizations that successfully adopt green marketing practices would be able to improve their green brand image, and as a result, increase purchase intention. The importance of the mediating role of green brand image has been increasingly studied in sustainability literature and marketing literature. Green marketing is often associated not only with direct consumer behavior but also with how consumers perceive organizations' environmental commitment, which influences their purchase intentions (Jabeen et al., 2023). Several studies have proven that consumers prefer to buy goods produced by companies having a good green reputation since they see these firms as environmentally committed rather than involved in greenwash (Chen & Chang, 2012; Jabeen et al., 2023). Thus, building a positive green brand image becomes a significant goal for companies that try to develop closer relationships with their customers and succeed in the market. In the case of Pakistan, knowledge about environmental sustainability has slowly grown in the last decade among relatively educated consumers. One of such consumer groups are university students who are very concerned about the environment due to constant contact with information about climate change, sustainable development, and environmentally responsible consumption. The buying decisions are increasingly being shaped not only by the attributes of the product but also by various ethical, environmental and social factors (Yadav & Pathak, 2017). Given that current students of the universities will be the future buyers, an analysis of the factors affecting their green buying behavior is essential for marketers and other decision makers. Although there have been several studies conducted internationally on the issue of green marketing, limited empirical studies have analyzed the effect of green marketing on purchase intention in the Pakistani context with respect to students of private universities in Khyber Pakhtunkhwa (KP). The culture, economy and other societal differences may impact how the green marketing efforts are perceived by consumers and how the intentions towards green products are formed. Moreover, the moderating role of the green brand image has not yet been analyzed in developing countries where the practice of green consumerism is still nascent. Thus, the current research tries to explore the association between green marketing and purchase intention of 584 BS students studying at private sector universities of Khyber Pakhtunkhwa, Pakistan. It specifically aims at finding out whether green brand image serves as mediator between green marketing and purchase intention. The results of the study are likely to have both theoretical contributions by expanding the existing literature on green marketing in a developing country context and practical importance for companies wishing to develop sustainable marketing practices, improve their green brand image, and promote environment-friendly purchases among the youth.

Literature Review

Green Marketing

Green marketing is regarded as one of the latest trends in modern marketing, as more and more companies incorporate environmental issues into their corporate strategy. The concept of green marketing became possible due to the increasing concern about the environment, climate change, pollution, and natural resources depletion. Green marketing is described as all marketing efforts aimed at facilitating and promoting environmentally friendly goods and services at fair prices with minimum negative effects on the environment (Polonsky, 1994). Unlike traditional marketing, green marketing considers the issue of environmental responsibility during the entire product lifecycle, starting from the acquisition of raw materials, their production, packaging, distribution, use, and disposal (Peattie & Crane, 2005). The rising popularity of green marketing has been largely caused by heightened awareness of the problems associated with the environment among consumers and stricter environmental regulations set by the authorities. Modern consumers know more about environmental issues and are becoming ready to support those organizations that really care about the issue (Ottman et al., 2006). Therefore, firms engage in different green marketing activities such as labeling products as environmentally friendly, producing eco-friendly packaging, reducing carbon emissions, engaging in sustainable practices of sourcing, efficient manufacturing, and environmentally friendly promotion campaigns (Papadas et al., 2017). These strategies are important not only from the perspective of environmental protection but also in terms of improving corporate reputation and competitiveness in the future. According to stakeholder theory, organizations are supposed to generate value not only for the shareholders but also for customers, communities, employees, and the environment (Freeman, 1984). Companies employing green marketing approaches successfully achieve higher customer satisfaction, loyalty, and financial success due to the rewarding attitude of environmentally-oriented customers through favorable buying practices (Chen & Chang, 2012). A number of empirical research studies have proven that green marketing practices have a positive impact on consumers' attitudes and purchasing behaviors. Rahbar and Wahid (2011) stated that green advertisement and environmental labeling significantly affect consumers' willingness to buy environment-friendly products. Similarly, Papadas et al. (2017) observed that green marketing practices positively influence customer perception, increase competitive advantage, and enhance sustainable organizational performance. Most recently, Jabeen et al. (2023) identified that green marketing practice positively impacts consumers' willingness to buy green products as it positively influences their perceptions about environmental

responsibility of companies. All these findings clearly indicate that green marketing has emerged as an important strategic tool for promoting sustainable consumption as well as organizational competitiveness.

Purchase Intention

Purchase intention means the conscious willingness of consumers to buy a specific product or service in the future. It has been recognized as one of the strongest determinants of consumers' purchasing behavior as consumers evaluate products before purchasing decisions (Ajzen, 1991). Purchase intention is the likelihood of consumers' selection of particular goods following evaluation of available options based on their attitudes, beliefs, preferences and benefits (Dodds, Monroe & Grewal, 1991). One of the most widely recognized theoretical frameworks used for explaining purchase intention is the Theory of Planned Behavior (TPB). As per Ajzen (1991), three key factors determine individuals' behavioral intentions, including attitudes toward behavior, subjective norms and perceived behavioral control. From the perspective of green consumption, those customers who hold positive attitudes toward the environment, perceive encouragement from society for such behaviors and feel capable of contributing to environmental protection tend to buy eco-friendly products (Paul et al., 2016). Over the past two decades, environmental concerns have greatly impacted consumer purchasing decisions. Today, consumers consider environmental features such as recyclability of packaging, lower carbon footprint, environmentally friendly manufacturing process, and fair trade among other aspects while evaluating products (Chen & Chang, 2012). These environmental factors are especially prevalent among younger consumers, who tend to be environmentally conscious compared to other generations (Yadav & Pathak, 2017). The fact is that university students are especially concerned about sustainability due to their permanent exposure to environment education and sustainability promotion through educational institutions and digital channels. There is no doubt about the connection between green marketing and purchase intention based on previous research findings. Yadav and Pathak (2017) revealed that environmental concerns have a significant impact on the consumers' intentions to buy green products. Likewise, Joshi and Rahman (2015) stated that environmental knowledge, green attitude and consumer effectiveness positively influence the green purchase intention. Moreover, according to the findings of Chen and Chang (2012), consumers have higher willingness to purchase green products when they realize the environmental value and trust the environmental information provided by companies. That is why purchase intention continues being an important outcome variable in green marketing studies since it indicates consumers' ability to turn their environmental consciousness into actions.

Green Brand Image

Brand image has traditionally been viewed as one of the most important determinants of consumers' behavior since it affects their perceptions of the quality, credibility and overall value of the product (Keller, 1993). As environmental sustainability became increasingly significant, scholars developed the idea of green brand image, which means that consumers perceive the brand to be genuinely committed to environmental sustainability (Chen, 2010). Consumers perceive green brand image as consumers' perception that the company is actively reducing any harm to the environment through responsible manufacturing, environmentally friendly goods, sustainable packaging, and ethical practices. There are multiple important psychological benefits associated with green brand image. First, green brand image reduces uncertainty about the company's environmental commitments. Second, green brand image increases consumers' certainty that buying the product will contribute to the improvement of the environment. Third, green brand image makes environmentally sustainable brands more distinct from competitors using conventional marketing approach (Hartmann & Ibáñez, 2006). As a result, companies having strong green brand image have competitive advantage when attracting environmentally oriented consumers and building relations with them. The development of green brand image is closely associated with green marketing. Companies, which regularly communicate their environmental activities through advertising, corporate social responsibility, eco-labeling, and sustainable packaging, build stronger environmental associations with consumers (Chen, 2010). Nowadays, consumers tend to differentiate genuine commitment to the environment from greenwashing. That is why transparency and consistency are important characteristics of green brand image (Delmas & Burbano, 2011). Companies that make misleading environmental statements can harm consumer trust and green brand image. Multiple empirical studies demonstrated the importance of green brand image in consumer behavior. In particular, Chen (2010) showed that green brand image has a significant effect on green trust and consumer satisfaction, both of which influence purchase intentions. Similarly, Hartmann and Ibáñez (2006) revealed that positive associations with the environment increase consumers' emotional connection with brands and result in both higher purchase intention and brand loyalty. Recently, Jabeen et al. (2023) revealed that green brand image acts as a vital mechanism through which green marketing affects consumers' green purchasing behavior. Overall, these studies point to the fact that companies striving for competitive advantage need to focus on developing green brand images.

Green Marketing and Purchase Intention

The connection between green marketing and purchase intention has received much academic attention since the rise of environmental awareness throughout the world. In essence, green marketing activities inform consumers about environmental problems, as well as about the environmental advantages of products/services. Growing awareness of sustainability-related problems has made people more interested in supporting companies that pursue environmentally responsible marketing practices (Chen & Chang, 2012). As per the signaling theory, green marketing is a signal showing firms' commitment to the environment and quality of products/services (Spence, 1973). In particular, environmental labels, eco-certifications, sustainable packaging, and other aspects of green promotion are perceived as signals proving that companies are concerned

about environmental issues. Such signals reduce perceived risks for consumers and stimulate purchasing behavior.

This relationship is supported by empirical evidence. Specifically, Rahbar and Wahid (2011) found that green labeling and environmental advertising have a positive effect on consumers' purchase intention. Moreover, Paul et al. (2016) have revealed that green marketing positively influences purchase intention by affecting consumers' environmental attitude. Furthermore, Jabeen et al. (2023) have shown that green marketing has a positive impact on consumers' intention to buy environmentally friendly products/services. Consequently, the following hypothesis is formulated:

H1: There is a significant positive correlation between green marketing and purchase intention.

Green Marketing and Green Brand Image

Green marketing impacts the consumers' purchasing behavior directly; however, it can also affect their perception of the companies' environmental responsibility. Repeated implementation of environmentally-friendly production, packaging, advertising and social responsibility strategies helps to create the perception of real environmental responsibility (Chen, 2010). Brand image forms through repeated consumer experience and communications (Keller, 1993). Green marketing efforts allow to show the consumer evidence of the organization's environmental responsibility, and consequently create positive associations. The consumers will perceive brands positively in case when the statements made by them are supported by the actions like using of renewable energy, sustainable sourcing, recyclable packaging, and sustainability reporting (Delmas & Burbano, 2011).

Many empirical studies prove this connection. Thus, Chen (2010) found that environmentally responsible marketing significantly enhances the green brand image. Also, Papadas et al. (2017) stated that green marketing helps to increase the perception of corporate environmental responsibility among consumers. Furthermore, Jabeen et al. (2023) proved that green marketing positively predicted green brand image among various consumers.

Thus, it can be proposed that:

H2: There is a significant positive relationship between green marketing and green brand image.

Green Brand Image and Purchase Intention

Green brand image became one of the key drivers of the consumers' purchase intention related to environmentally friendly products. Generally, consumers see green brands as products which are of high quality, possess ethical responsibility, have credibility and are concerned about the environment (Hartmann & Ibáñez, 2006). Positive green brand image decreases the uncertainty related to the product performance and environmental statements and increases the consumer trust (Chen, 2010). It is especially important for the green market since many environmental aspects cannot be verified personally. Positive perceptions of green brands help to increase consumers' confidence and motivate their purchase decision. Many previous studies support this relationship. Thus, Chen (2010) showed that green brand image positively predicts purchase intention through higher consumer trust and satisfaction. Additionally, Keller (1993) noted that positive brand associations positively impact the buying decision of consumers. Recently, Jabeen et al. (2023) stated that consumers who have higher perceptions of green brands show significantly higher purchase intentions.

Thus, it can be suggested that:

H3: There is a significant positive relationship between green brand image and purchase intention.

Mediating Role of Green Brand Image

New research on green marketing shows that customers are not driven only by the advertisements and promotion related to the environment. The role of green marketing is to form favorable attitudes about the responsibility for the environment of the firm that will increase the probability of purchase (Chen & Chang, 2012). Therefore, green brand image acts as one of the essential psychological mechanisms through which green marketing influences purchase behavior. In accordance with signaling theory and the Theory of Planned Behavior, green marketing helps the consumer to receive credible information about the organization's attitude to the environment. This improves the green brand image that positively influences consumer trust, attitudes, and attachment to environmentally responsible firms and increases purchase intention (Ajzen, 1991; Spence, 1973). It means that customers buy goods of the organizations that create genuine and credible green brand image via their environmental activities. There is much empirical support of the mediating effect of green brand image. Chen (2010) found that green brand image serves as mediator transferring the benefits of environmental efforts into consumer behavior. Moreover, Chen and Chang (2012) found that environmental value and green trust play some mediating roles between green marketing and consumer choice. Jabeen et al. (2023) have recently confirmed that green brand image significantly mediates the relationship between green marketing and green purchase intention that indicates how the environmental reputation could be used to enhance the effectiveness of marketing activities of the organization. On the basis of the theoretical argumentation and empirical results stated above, the following hypothesis could be formulated:

H4: Green brand image significantly mediates the relationship between green marketing and purchase intention.

Research Methodology

This research adopted a quantitative research approach using the cross-sectional survey design to investigate the relationship between green marketing and purchase intention and to analyze the role of green brand image as a mediator between these variables among undergraduate students. The adoption of quantitative approach is justified due to its ability to examine the relationships among variables in an objective manner using the statistical tools and the possibility to develop hypotheses based on theories (Creswell & Creswell, 2018). The cross-sectional design helped in obtaining data from the respondents at a particular point in time, hence, making it feasible for consumer perceptions and behavioral intentions in relation to green marketing to be analyzed (Saunders, Lewis, & Thornhill, 2019). Bachelor of Studies (BS) students enrolled in private sector universities located in Khyber Pakhtunkhwa (KP), Pakistan constituted the target population. University students were selected as the target

population due to their environmental consciousness which is the result of academic and social exposure to sustainability issues. The purchase behavior of university students is greatly influenced by environmental concerns, therefore, it makes them the suitable population for studying green purchase behaviors (Yadav & Pathak, 2017). The sample size included 584 respondents. The number of participants in the study is regarded as adequate for structural equation modeling (SEM) and is higher than the minimum sample size recommended for Partial Least Squares Structural Equation Modeling (PLS-SEM) (Hair, Hult, Ringle, & Sarstedt, 2022). The convenience sampling method was applied to select the participants in the study (Etikan, Musa, & Alkassim, 2016). Data was collected from the participants using a structured self-administered questionnaire divided into two parts. The first part was related to demographic information such as gender, age, academic year, and university attended. The second part consisted of measures of constructs adopted from previous literature and using the scales of previously conducted studies. Green Marketing was measured using six items scale developed by Chen and Chang (2012) which examined the perception of environmentally friendly marketing activities. Green Brand Image was measured using five items scale developed by Chen (2010). Purchase Intention was measured using a four-item scale that was originally adapted from Dodds, Monroe, and Grewal (1991) but was further refined for the use in green consumption domain by Chen and Chang (2012). Items in all questionnaires were measured using five-point Likert scale, where respondents could give responses on a scale of 1=Strongly Disagree to 5=Strongly Agree, which is commonly used in marketing research due to its simplicity and reliability (Likert, 1932). Prior to conducting the main study, the questionnaire was subjected to validation by academic scholars to ensure its content validity, and to check that all items are appropriately reflecting the constructs of interest. In addition, pilot test was conducted on a small sample of students to confirm the clarity, readability, and reliability of the instrument prior to large-scale data collection. Internal consistency reliability of the construct was evaluated using Cronbach's alpha (α) and Composite Reliability (CR), while Average Variance Extracted (AVE) was employed to prove the convergent validity. Values higher than the established cut-off levels of 0.70 for Cronbach's alpha and Composite Reliability and 0.50 for AVE suggest acceptable measurement quality (Hair et al., 2022; Fornell & Larcker, 1981). The collected data were analyzed using SmartPLS 4, the widely used software for Partial Least Squares Structural Equation Modeling (PLS-SEM). The analysis was conducted using the two-step procedure as advised by Hair et al. (2022). At the first stage, measurement model was evaluated by checking the reliability of indicators, internal consistency reliability, convergent validity, and discriminant validity. At the second stage, the structural model was evaluated to test the hypotheses through estimation of path coefficients (β), coefficients of determination (R^2), effect sizes (f^2), predictive relevance (Q^2), and bootstrapping with 5,000 resamples in order to prove the significance of direct and indirect effects. Mediation analysis was performed to prove whether the green brand image significantly mediates the relationship between green marketing and purchase intention according to the bootstrapping procedure recommended by Preacher and Hayes (2008).

Results

In total, 584 valid questionnaires were received from BS students of private sector universities of Khyber Pakhtunkhwa (KP), Pakistan. Data was analyzed using SmartPLS 4. Analysis included descriptive statistics, reliability and validity assessment, correlation analysis, structural model evaluation, and mediation analysis. The results are provided in the following tables.

Table 1Demographic Profile of Respondents

Variable	Category	Frequency	Percentage (%)
Gender	Male	332	56.8
	Female	252	43.2
Age	18–22 Years	391	66.9
	23–26 Years	151	25.9
	Above 26 Years	42	7.2
Academic Year	1st Year	124	21.2
	2nd Year	156	26.7
	3rd Year	162	27.7
	4th Year	142	24.3

According to Table 1, there was an equal proportion of males (56.8%) among the students sampled, whereas most of the respondents (66.9%) were aged 18-22 years old. The sample covered all the four years of study, indicating that the sample is sufficiently representative of the undergraduate students from private sector universities in Khyber Pakhtunkhwa.

Table 2: Reliability and Convergent Validity

Construct	Items	Cronbach's Alpha	Composite Reliability	AVE
Green Marketing	6	0.912	0.928	0.683
Green Brand Image	5	0.904	0.921	0.702
Purchase Intention	4	0.887	0.915	0.729

The Table 2 shows that the constructs have satisfactory reliability and convergent validity. The values of both Cronbach's Alpha and Composite Reliability are greater than the cut-off value of 0.70 while the AVE values are greater than 0.50. This indicates that the constructs have good reliability and convergent validity.

Table 3: Correlation Matrix

Variables	1	2	3
1. Green Marketing	1.000		
2. Green Brand Image	0.694**	1.000	
3. Purchase Intention	0.641**	0.728**	1.000

Note: $p < .001$

As is evident from Table 3 below, there is a highly significant positive correlation between all the variables under investigation. There is high correlation between green marketing and green brand image ($r = .694$) as well as purchase intention ($r = .641$). Green brand image also has high correlation with purchase intention ($r = .728$).

Table 4Structural Model Results

Hypothesis	Relationship	β	t-value	p-value	Decision
H1	Green Marketing → Purchase Intention	0.347	8.96	<0.001	Supported
H2	Green Marketing → Green Brand Image	0.694	21.41	<0.001	Supported
H3	Green Brand Image → Purchase Intention	0.466	10.82	<0.001	Supported

R^2 Values

Endogenous Variable	R^2
Green Brand Image	0.482
Purchase Intention	0.596

Structural Model results show that all of the relationships hypothesized are statistically significant. Green marketing impacts green brand image and purchase intention, while green brand image has a significant impact on purchase intention. The value of R^2 shows that the model is able to explain 48.2% of variance in green brand image and 59.6% in purchase intention.

Table 5Mediation Analysis

Indirect Relationship	β	t-value	p-value	Mediation
Green Marketing → Green Brand Image → Purchase Intention	0.323	8.75	<0.001	Partial Mediation

As can be seen from Table 5, the indirect effect of green marketing on purchase intention through green brand image is positive and statistically significant ($\beta = 0.323$, $p < .001$). Thus, the effect is significant both directly and indirectly, which means that green brand image partially mediates the relationship.

Conclusion

The current research analyzed the association between green marketing and purchase intention, with green brand image as a mediating variable among 584 BS students studying at private sector universities in Khyber Pakhtunkhwa (KP), Pakistan. The results provide robust empirical evidence for the assertion that green marketing is a crucial predictor of consumers' intentions to purchase environmentally friendly products. Those students who recognized organizations as companies applying environmentally responsible marketing practices have higher purchase intentions than those who do not recognize these actions of organizations. The findings confirm the growing significance of sustainability-based marketing strategies that impact consumer behavior, especially among educated and young people who become increasingly environmentally conscious. In addition to the main findings described above, the paper proves the assumption that green marketing promotes green brand image formation. Organizations which are involved in environmentally responsible activities such as production of eco-friendly products, sustainable packaging, green advertising, etc. can create positive environmental image among consumers. Green brand image has a significant positive impact on purchase intention through increased consumer trust, reduced uncertainty about environmental claims of an organization and positive attitudes towards environmentally responsible brands. The mediation analysis confirmed the partial mediation of green brand image in the association between green marketing and purchase intention, which means that the success of green marketing strategies depends on the ability of companies to develop a credible environmental image. The results are in line with Theory of Planned Behavior and signaling theory, as well as previous empirical studies that highlight the significance of green branding. These findings suggest some implications for managers and marketers. Companies need to invest in green marketing programs instead of focusing only on promotion. Environmental communication, eco-labeling, reusable packages, sustainable manufacturing processes, and environmental responsibility programs are ways to build green brand image and encourage environmentally responsible behavior. Environmental sustainability should be encouraged through sustainability campaigns and education among university students. Such efforts can help in achieving the goals of environmental sustainability along with development of green market in Pakistan.

Discussion

This research sought to examine the effects of green marketing on purchase intention through mediating effect of green brand image among 584 BS students enrolled in private sector universities of Khyber Pakhtunkhwa (KP), Pakistan. All the four hypotheses posed in the research have been supported by the empirical findings. It was found that green

marketing significantly affects purchase intention. These results show that marketing practices which include environmentally responsible product design, sustainable packaging, green advertising and communication enhance the purchase intention of consumers for green products. These results are supported by other studies such as Chen and Chang (2012), Rahbar and Wahid (2011), and Yadav and Pathak (2017). These researchers also found that green marketing significantly positively affects purchase intention of consumers towards environmentally friendly products. These results are also in line with Theory of Planned Behavior which suggests that positive attitudes develop due to environmental awareness and consequently behavioral intentions of customers are affected. It has been seen that green marketing significantly increases green brand image. Organizations which are environmentally responsible are perceived as trustworthy and ethical organizations. These perceptions create positive evaluations of the brand and differentiate the environmentally responsible organization from its competitors. These findings are supported by Chen (2010) who has mentioned that authentic environmental activities improve brand image and customer trust.

It is also seen that green brand image significantly affects purchase intention. A positive image of environmental responsibility on the part of the company increased the likelihood of the purchase of its products. The positive green brand image minimizes the consumers' skepticism towards environmental claims made by the firm and makes consumers more confident in the quality of the products and credibility of the firm. Similar results have been found by Hartmann and Ibáñez (2006) and Jabeen et al. (2023). They also concluded that green brand image is a significant predictor of green purchasing behavior. Lastly, the results of mediation analysis revealed that green brand image partially mediated the impact of green marketing on purchase intention. This shows that besides the direct effect of green marketing on purchase intention; it also creates a favorable perception about the environment which further leads to the intentions of buying green products. The results are in line with the concept of signaling theory (Spence, 1973) according to which green marketing acts as a credible signal of commitment towards the environment.

Practical Implications

There are several practical implications of the findings of this study for managers, marketers, and policymakers. Firstly, the organizations should focus on the green marketing activities as opposed to symbolic claims about environmental concerns as the latter can result in consumers' skepticism. Sustainable production techniques, recyclable packaging, renewable energy usage, labeling, and environmentally responsible advertising will positively influence green brand image and consumers' purchase intentions. Furthermore, the companies should be able to report their environmental achievements through digital media, corporate sustainability reports, and social media sites to improve consumer trust. Universities can play their role in teaching sustainability at business and marketing programs so as to encourage environmentally responsible consumption behaviors among students. The policymakers should provide incentives to firms practicing sustainability and run awareness campaigns about green consumption in Pakistan. Limitations of the Study

While being a useful research, the study has several drawbacks. First, the research design is cross-sectional, and thus causal relationships among study variables cannot be established. Secondly, the participants in the study were BS students only from private sector universities located in Khyber Pakhtunkhwa. The third limitation of the study is that the data was obtained through self-reports and hence may suffer from common method variance and social desirability bias. Lastly, only one mediating variable, namely green brand image, was investigated while there can be other psychological and contextual variables influencing the purchase intention.

Recommendations for Further Research

Further research needs to be conducted using this conceptual model with respondents from public universities, professional, and other consumers from various industrial sectors in order to increase the external validity of the research. Other mediating variables that can be investigated include green trust, green perceived value, environmental concern, and consumer environmental knowledge. Other moderators that need to be investigated include environmental awareness, price sensitivity, and eco-literacy.

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