

Green Marketing and Consumer Purchase Intention: A study from Pakistani Consumer Market

^{1, 2} Istanbul Commerce University, Türkiye ¹ Shoaibvirk24@gmail.com, ² eideveli@ticaret.edu.tr

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Abstract: In the twenty-first century, environmental concerns are of vital importance and the success of green products is crucial for the sustainability of humankind and the planet. However, both environmental consciousness and customer interest in environmentally friendly products are growing. The human race today sustains more artificial products rather than natural ones. This paper is particularly for green products consumptions and the consumer's intention to purchase for the population of Pakistan. This study employs a descriptive analytical research approach and utilizes survey questionnaires that were taken in for further results to know more about consumer's intentions when buying or consuming green products. The consumers' intentions for green products are primarily established due to green awareness, the value of green perception, the trust they perceive, their responsibility towards the environment, and the risks that come with all the situations. The outcomes gathered showed us that more the awareness the more consumers' intention toward green purchases. Moreover, there is also trust and ambition toward the Green Perceived Value. In addition, the study also shows us a positive relation between green perceived trust and environmental responsibility towards green perceived intention while the perceived green risk negatively impacts the consumers' purchase intention. This study can provide good insight for marketers targeting green consumers together with the necessity for companies to offer a variety of green products.

Key Words: Green Marketing, Consumer Purchase, and Intention

Classification: M10, M30, M31, F64

1. Introduction

Sustainability as a part of circular economy, is seen as a new economic era in redesigning the business systems, managing resources more effectively, making the flow of materials which are part of more circular and reducing and ultimately eliminating waste flows (Özekan, 2009).

Following American Marketing Association, the marketing of products that are supposed to be safe for the environment is called green marketing (AMA, 2017). It is a combination of a wide variety of activities that are included in the amendment of products, variation in the process of production, and modified advertising. It is difficult to explain green marketing since the phrase has several overlapping meanings. As an example, consider the different ways that the terms "green marketing" and "green retailing" might be combined. In addition, other terminologies like ecological marketing and environmental marketing are utilized. ("Green marketing", 2022). However, Consumers' perspectives have a significant role in how we interpret green marketing (Peattie et al., 2005). Green marketing is referred to as the activities that are designed to generate and entertain any sort of exchanges included for the satisfaction of human requirements or wants. The fulfillment of wants and needs happens so that the satisfaction of all needs has a minimum negative effect on the environment naturally (Peattie, K., & Ratnayaka, 1992). According to Ferrel (1993), green marketing refers to a company's efforts to design, promote, price, and distribute products unlikely to damage the environment. It is commonly described using the phrases sustainable marketing and environmental marketing. According to Polonsky (1994), green marketing is any activity aiming to generate and enable any trades intended to satisfy human wants or desires while having the least potential detrimental impact on the environment.

It is evident that a wide range of activities is included in green marketing, including the modification of products, adjustments to production processes, changes to packaging, and modifications to the advertisement. Since ecological harm cannot always be eliminated, green marketing should focus on reducing it. Nowadays, products that make green claims may specify that they are less ecologically dangerous rather than environmentally favorable.

1.1. Why Green Marketing?

There are issues with Global warming and the reduction of the layer of ozone which is the major matter in question for one's healthy survival. Each individual, whether poor or rich needs to be concerned with a healthy life filled with health and vigor. Other than a person's well-being, a business has its main aim for the gain of finance and profit in the economy. This intellect is creating corporate citizenship known in the class of business. Green marketing is a long-term sustainable way for pleasure consumers to obtain an authorized license from the governing body. Also, industries are in need to catch green marketing for the development of the countries though there is a gap in the understanding and implementation (Qwr, 2015). It is a strong

belief that there is a need for strong marketing as there is only 5 percent found in the marketing message via the 'Green' campaigns which are wholly true and there is standardization absence to validate those rights. At present, no known standardization shows us that there is any organic product. While green Marketing has many benefits. People today are becoming more aware of the environment in terms of social responsibility. Hence, more companies are responsible for making products that are least harmful to consumers. Also, they have advanced more toward green marketing. Companies keep the environmentally friendly concept in mind when marketing their products. Also, the employees of the company feel proud as they see themselves working in an environmentally responsible company (Qwr, 2015).

The intention is the main source through which a marketer can target its people. When knowing one's intention, it is then only that the purpose, plans, and other actions can be set and known where to be aimed at. The main thing that drives a person's action is their intentions. For a while, there has been an ongoing discussion about the weather and atmosphere. Although, there are some positive changes in the environment because of the awareness announced in 1970. This change has shown more product usage related to the environment. This helps in changing the environment from being more damaged to being restored or halting the damage (Polonsky, Michael Jay, 2001). In common, there are numerous abilities and features of green marketing and awareness which are even introduced to the common public. The awareness of it has even helped people to go for it and buy environmentally friendly products so they can help the world. This is the most important task that consumers should have in mind the advantages of green products the next time they make a purchase. There is unlimited pollution in the world and that is due to various reasons. Some of it is due to factory gas and other is because of global warming (Jain et al., 2021). It is also one of the most significant studies as various establishments display green schemes for making their products prominent and increasing their perception and reducing their risks. The popularity of green products is increasing thus it is an advantage for marketers to keep it in their stock as it is a fast-selling product. Moreover, if there is any purchase of green products, then only there is a benefit for the firms. The promotion of green products is having a good reputation in the market and more sales (Deshmukh & Bhalerao, 2015). People commonly know that there is faith in green products as they are natural hence the users have their mind set on it to buy them. Trust is more as there are fewer chances of risks which maximizes the buying and selling of green products, which in turn makes green intentions (Ottman, Jacqueline, 1998). The companies dealing with green products should be the ones getting the advantage of operating green products and their opportunities, pleasing the

advantages in terms of competitiveness, and increasing company sales. With the support of trust, responsibilities socially, and awareness, the intention can be made.

This paper is focusing on different independent variables but, the dependent variable is purchase intention. Green awareness is termed GA which is a major factor. There is usually an assumption that green awareness is correlated positively with green brand preference (Lasuin & Ching, 2014). Green awareness is knowledge about green products and other properties it places among the products within the environment. Individuals having more knowledge of green products are the ones having the intention of buying them more often and benefiting from them (Suki, 2013).

Another important factor is environmental responsibility PER. If society is environmentally responsible, then green purchase intention is more in that area. This study is also to check society's environmental responsibility. Then there is GPV it stands for green perceived value, it is the calculation of the overall advantage of a service or product (Lam et al., 2016). The GPV can be explained in more than one way. There are automatically more advantages to green products compared to other regular products. Not only does the perceived value of a product play an integral role in influencing purchase intentions, but it is also an essential component of forming long-term consumer relationships (Pananond et al., 1998) and affecting the trust of consumers.

Green perceived trust GPT is another important element, there is an influence of green perceived trust in the purchase intention of the products for consumers. It is because trust needs to be obtained as the consumers have to outgrow the perception of uncertainty and risks that are included in the purchase intention (McKnight et al., 2002). The green perceived risk stands for GPR anticipates negative environmental consequences which are linked to the purchase behavior (Juliana et al., 2020). The green perceived risk is a certain point one has in mind related to the product if it does not work properly if it will even fulfill the demands or not and if there would be more damage to the world because of it, if it is not eco–friendly (Tarabieh, 2021). The green perceived risk is the one of not letting the customers buy green products moreover, it also affects the intention and consumer's purchase behaviors. This factor is the most important in our study as PI (Purchase Intention) is the intention that one has for the purchase of services or products which are safe for the environment (Huang et al., 2014). The PI is the consumer's heart voice for the purchasing of goods that are environmentally friendly so that our atmosphere can be saved (Ali & Ahmad, 2016).

Green marketing has several benefits, but it also has a multitude of challenges that need more study and development. Consequently, the purpose of this research is to evaluate how green marketing impacts the purchase intentions of customers. This article investigates the relationship between green perceived trust, green perceived value, and green perceived risk with the purchase intention of consumers. This study also examines the link between green awareness and environmental responsibility in relation to the consumer's purchase intention.

2. Literature Review

2.1. Concepts of Green Marketing

To meet human needs, firms must participate in green marketing, which is defined as marketing that integrates all activities regarded to have resulted in consumer satisfaction with requirement fulfillment and having the least negative impact on the natural environment (Polonsky, 1994). Another definition of green marketing highlights its dedication to sustainability and the conservation of natural resources. It discusses green marketing as an organization's efforts to promote, sell, manufacture, and distribute goods that have no negative environmental impacts (Ferrel, 1993; Anamaria, 2014). Some sources describe green marketing as the creation and promotion of goods that are both environmentally friendly and safe for customers. The American Marketing Association (AMA, 2017) termed green marketing as the development and promotion of goods that have a beneficial influence on the environment. According to Dumitru (2013), green marketing is a procedure of managerial and social nature in which individuals, groups, or people achieve all that they want, change, and have value.

2.2. Green Marketing Mix

There are 4Ps in Green Marketing include Green Products, Green Price, Green Place, and Green Promotion.

2.2.1. Green Product

The phrases environmental product or green product are often used in business to describe products that work to conserve or enhance the ecological environment by saving resources and minimizing or abolishing the usage of toxicants, waste, and pollution (Mahmoud, 2018). Green product is the first product of the marketing mix. Numerous kinds of updated methodologies and systems are in use as they assess the influence of marketing on the environment. The main point to be focused upon is how the products can be called green if they are made from plastic. Green marketing needs

to be incorporated into the P of marketing while considering the design, technology, usefulness, value, convenience, quality, and packing (Deshmukh & Bhalerao, 2015).

2.2.2 Green Price

Green Price indicates the overall price a customer pays for an item. Numerous variables, including the cost of raw materials, product distinctiveness, competition, market share, and consumer value, play into determining a product's pricing (Deshmukh & Bhalerao, 2015). Since green products are often costlier than non-green alternatives, ensuring that the price covers manufacturing costs is a common concern throughout the pricing process. Therefore, the reasoning goes, green marketing should be priced such that the majority of people can afford it. The price of an item should not influence a customer's choice to purchase it.

2.2.3. Green Place

Green Place is a distribution network of products. It can either be a virtual store or a physical one (Deshmukh & Bhalerao, 2015). Physical distribution describes the movement of items from the producer to the purchaser. Therefore, everything that makes it simpler for a producer to acquire and sell a product is deemed "green." Today, the majority of businesses can be found functioning online. Reduces the time and effort necessary for consumers to go to the market, choose a retailer, and complete the purchase. It helps in getting the customer the product they want in their comfort zone. Hence, the internet is the green place of the market. It is beneficial for the customers and the manufacturers.

2.2.4. Green Promotion

Green promotion is another activity that undertakes promotional actions so they can create awareness about the products they make (Deshmukh & Bhalerao, 2015). In an ideal world, a marketing spend would enhance audience engagement and boost sales. The effect of the promotion on becoming green will probably be contingent on elements such as the selection of promotional partners, the diffusion of advertising messages, and the usage of promotional materials. (Deshmukh & Bhalerao, 2015).

2.3. Purchase Intention

Green purchase intention is the willingness of a person to buy a product according to his needs and wants environmentally (Netemeyer et al., 2005). According to Bhaskar and Kumar (2016), consumer purchase intention is that after evaluating the product a consumer is prepared to engage in a purchase. The green purchase intention includes 3 measurements, those include the intention of buying a product due to its

environmental concern, would buy again in the future due to its environmental performance, and then just being glad of buying a product because it is safe for the environment (Chen & Chang, 2012). As green marketing has expanded on a large scale now and due to it, numerous marketing approaches apply to different elements such as products, prices, and other relevant, things one wants to get, it is the consumer's choice and intention on what they want to purchase as the products can be from various goods and brands. Though, the purchase intention has the act of making decisions. Thus, it is the buyers' choice what kind of brand they want to buy or what sort of goods they want to purchase. It is the act of making a decision hence, so it is important to know the intention of the customer on the product they want to get (Patwary et al., 2021). Whereas actual conduct and consumer intention are interchangeable.

2.4. Factors affecting Green Purchase Intention

2.4.1. Green Awareness

Green awareness is a level of recognition and recall for the environment (Junarsin et al., 2022). The development of consumer concern for environmentally friendly products, also known as green awareness, that's what leads to the adoption of green marketing concepts in business (Polonsky, 2011). It is well acknowledged that a marketing strategy with an environmental focus, such as green advertising, can affect people's perceptions of the environment (Mourad & Ahmed, 2012). Additionally, the company's green brand reputation significantly influences consumers' environmental consciousness. (Deshmukh & Bhalerao, 2015). However, green product awareness is spread via their labeling, packaging, and advertising (Ansu-Mensah, 2021). The unfamiliarity of green products and services could be the cause of a decline in interest toward purchases (Glegg et al., 2005). Green awareness is linked directly to the claim made by consumers about a product they use that benefits both them and the environment (Alamsyah et al., 2018).

2.4.2 Green Perceived Value

Patterson and Spreng (1997), define "green perceived value" as the customer's estimation of the product's worth in light of the customer's requirements, wants, and desires. The examination of environmental safety takes into account not only how effectively the product serves its target audience, but also how well it safeguards the environment. According to Sweeney et al., (1999), perceived value is a collection of characteristics connected with a product's perception, which can result in good word of mouth resulting in increased purchase intentions. The product with value offers more advantages than comparable alternatives (Patterson & Spreng, 1997). In addition to

being a crucial factor in long-term client relationships, perceived value also significantly influences consumers' intentions to make purchases (Lam et al., 2016).

2.4.3. Green Perceived Trust

Green perceived trust is referred to as the green trust in which one has the will to depend upon the product, its service, and its brand that is based upon the belief and the expectation of the result which is from its ability, credibility, and its benevolence (Chen & Chang, 2012). Those all are about its performance on the environment. Additionally, this includes the five measurements. That included, this product having a good environmental reputation and being reliable, the product is dependable, and the product is trustworthy (Chen, 2012), which meets the consumer's expectations and commitment towards environmental protection. Nevertheless, trust is a key factor in influencing consumer behavior, it has a favorable impact on consumers' intentions to purchase green goods (Schlosser et al., 2006). One of the causes for consumers' reluctance to buy green products could be distrust of consumers (Junarsin et al., 2022).

2.4.4. Green Perceived Risk

The term "green perceived risk" refers to the possibility that utilizing a product might have unfavorable environmental implications. Green perceived risk can influence consumers' responses to a product (Peter & Ryan, 1976). The environmental performance of the product may fall short of expectations. Manufacturing defects may hinder the product from serving its intended function. There is a possibility that the environment will suffer if this product is used, that unfavorable consequences will ensue, and that the product's green reputation will be damaged (Chen & Chang, 2012). Customers would be less likely to purchase a product if they felt it carried a significant level of risk (Mitchell, 1999).

2.4.5. Perceived Environmental Responsibility

Perceived environmental responsibility refers to the duty of securing the environment so it would not have any negative impact (Kumar & Prashant, 2015). Over time, consumers became more aware of and knowledgeable about environmental issues. The intention of having the environmental responsibility is a reflection of the desires of customers to spend more on green products (Lee, 2008). Environmental responsibility is the effect of buying green products. Women are the ones more into addressing environmental issues than men (Lee, 2009). Hence, the idea of predicting environmentally friendly behavior is more accurate and active (Paço & Gouveia Rodrigues, 2016).

3. Research Methodology

3.1. Hypothesis

According to the study's model and the literature, the following hypotheses have emerged:

- H₁: Green awareness is positively associated with purchase intention.
- H₂: Green perceived value is positively associated with purchase intention.
- H₃: Green perceived trust is positively associated with purchase intention.
- H₄: Green perceived risk is negatively associated with purchase intention.
- H₅: Environmental responsibility is positively associated with purchase intention.

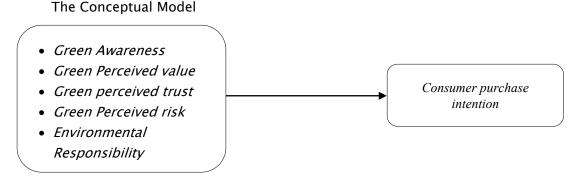


Figure 1. Conceptual Model: Impact of Green Marketing on Consumer Purchase Intention

3.2. Questionnaire Design

The questionnaire's scales were created throughout the literature review and chosen from among reliable and valid scales. The survey instruments hold double sections; the first section is about the variables related to personal and demographic variables. This is the section where the people's information is carried out including gender, age, education, status, and income. Then, the other section adds up scales of measurement items. The variables are the ones that comprise Green Purchase Intention, Green Awareness, Green Perceived Risk, Green Perceived Trust, Green Perceived Responsibility, and Green Perceived Value. The scales were extracted from previous studies (Arshad et al., 2014).

All these scales and measurement items for this study were derived from previous studies and literature. The first variable of this study is GA, and it has 5 scales of measurement that were acquired from (Keller, 1993). Then there is GPV which was acquired from (Patterson & Spreng, 1997), and that too contains 5 scales of

measurement. Another is GPT which contains 4 scales of measurement and was obtained from (Chen, 2010). Moreover, GPR is having 3 scales of measurement and was from (Sweeney et al., 1999), then there is environmental responsibility having 6 scales of measurement that were acquired from (Lee, 2008), and then in the end PI has 4 scales of measurement from (Chen & Chang, 2012). The scales are presented in detail below in Table 1.

Table 1. Scales and Measurement items

Construct	Measurement
	You know about the environmental efforts that are put into this brand.
Green Awareness	You are aware of the mottos of this brand.
	You are aware of the motto of this environment company and the symbols that it
	has which makes up the marketing campaigns.
	You can remember some environmental symbols used in marketing campaigns.
	In case there is an environment label of a brand, would you be using it?
	This is an excellent quality product regarding environmental functions.
	My expectations are met for this product's environmental performance.
Green Perceived Value	Purchase of the product is made as it is environmentally safer.
diceiri ciccivea value	You purchase the product since it's environmentally friendly.
	You purchase the product as it is more beneficial in terms of environmental safety
	as compared to others.
	There is general reliability in the reputation of this environmental product.
Green Perceived Trust	The environmental claims of this product are trustworthy.
C. Com C. C. Com Car T. Gast	This product's expectations are met regarding the environmental concern.
	This product upholds its environmental protection commitments and promises.
	There might be a chance that the environmental outcome of this product can be
	wrong.
Green Perceived Risk	Can there be any chance of this product not working properly because of its
	environmental design?
	Using this product, will there be a negative impact on the environment?
	I am the one who should also be protecting the environment.
	Do you think you are responsible for the protection of the environment?
Perceived	I took care of the environment from a young age.
Environmental Responsibility	How committed are you to assuming responsibility for Pakistan's environmental
	protection?
	The government of Pakistan should manage the environment not me
	Environmental organizations are responsible for protecting the environment; not
	Me.
	Your intention to buy green products is just because of their environmental concern.
Green Purchase	Environmental performance is the reason you would purchase green products in
Intention	the upcoming time.
	Generally, since it's environmentally friendly, you purchase green products.
	You have a strong preference for buying eco-friendly products.

3.3. Likert Scale

The Likert scale is the psychometric scale that is used normally in questionnaires. It is a scale that is used to measure the information asked based on how people feel about it. For this purpose, the Likert scale was used which has 5 ranges of options. with 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (disagree), and 5 (Strongly Agree) was used to be chosen. Their responses can be positive, neutral, or negative. They are for agreement, likelihood, or importance (Solmaz, 2020).

4.3. Data Collection and Sampling

For the collection of data, this study utilizes a quantitative research method. The data was assembled from 306 respondents. For the collection of data, convenience sampling was implemented for this study. Convenience sampling is the kind of sampling that is used to collect data through a big number of surveys that are filled in swiftly. Google forms were used to conduct the online survey between October 5th and November 5th, which returned a total of 306 responses. The participants were required to complete a questionnaire. The first 50 questions were pre–tested to identify any hiccups in the survey's execution and assess the reliability and validity of the instrument.

The population of the study was Pakistani consumers. For sample size, the study used a formula $N \ge 50 + 8m$ given by (Barbara G Tabachnick, 2007). N represents the sample size, whereas m represents the number of predictors or independent variables. This implies that there should be above 90 participants in the research. Since the 50 participants were pre-tests and there was no identification of any snags in the survey, the execution, and evaluation of the instrument's reliability was carried out. Since there are five independent variables, the sample size is set to 306, which exceeds the minimum threshold. The data collected were from a wide range from the age of 18 to 34 and above (Lym et al. 2010).

4. Analysis and Results

The software that was used for carrying out the results was IBM SPSS Statistics 24. It is a program that analyses the primary collection of data, the demographic, and statistical analysis. Moreover, the research model was tested too.

4.1. Descriptive Statistics

The respondent's demographic information (such as age, gender, and education level) is presented in this section. The respondents fell into the following age ranges where

Table 2 shows that out of the total respondents, 26 (8.50%) were in the prime of their young adult lives (between the ages of 18 and 22). There were 32, (10.46%) people in the age range of 23 to 26 years old, 57 (18.63%) in the 27 to 30-year-old range, 106 (34.64%) in the 31 to 34-year-old range, and 85, (27.78%) in the 35+ age range.

Table 2. Demographic Analysis

S/N	Demographic	Nomenclature	Frequency	% A ge
		18-22 years	26	8.50
		23-26 years	32	10.46
01		27-30 years	57	18.63
	Age	31-34 years	106	34.64
02		Above 34 years	85	27.78
	Gender	Female	117	38.24
		Male	189	61.76
		Intermediate	34	11.11
		Graduate	96	31.37
03		Post-Graduate	102	33.33
	Education	Diploma	50	16.34
		PhD	24	7.84
	Total		306	100

As for the gender of respondents was concerned, (38%) 117 respondents were female while, (62%) 189 were male respondents. 34 (11.11%) respondents were having an education up to the intermediate level, 96 (31.37%) were graduate respondents, 102 (33.33%) were postgraduate respondents, 50 (16.34%) were diploma holders and 24 (7.84%) were such respondents who were qualifying for Ph.D.

4.2. Reliability Analysis

Reliability refers to how well something can be used to obtain the same result consistently (Burns, 2000). The total Cronbach's alpha coefficient for our variables present in the study was acceptable. Also, it is seen that the correlations are reliable as well as good for the point of view of the consumers of green products. Cronbach's alpha coefficient is the measurement of internal consistency which shows us the relation of items that are set as a group (Glen, 2021). Moreover, it is also said to be the measurement of the reliability of the scale. The effective range for Cronbach's alpha reliability coefficient is 0 to 1. However, the coefficient has no lower limit. The scale's items have a higher level of internal consistency when Cronbach's alpha coefficient is close to 1. Generally, the minimum value for Cronbach's alpha coefficient should be 0.7 (Chen & Chang, 2012). The results of the reliability analysis are portrayed below in Table 3.

Table 3. Reliability Analysis

Scales	Items	Cronbach's Alpha
Green Awareness	5	.771
Green Perceived Value	5	.761
Green Perceived Trust	4	.765
Green Perceived Risk	3	.942
Perceived Environmental Responsibility	5	.781
Green Purchase Intention	4	.775

Green awareness has item 5 with Cronbach's alpha of .771 and green perceived value with 5 items and Cronbach's alpha of .761. Then we have green perceived trust which has 4 items with Cronbach's alpha of .765. Moving on, the Green perceived risk has Cronbach's alpha of .942 with 3 items and 5 items for perceived environmental responsibility with Cronbach's alpha of .781, and lastly, Cronbach's alpha is .775 for green purchase intention for 4 items. Since the total Cronbach's alpha coefficients for all constructs are more than 0.7, so the measurements of this study were overall accepted as reliable.

4.3. Correlation Analysis

Correlation analysis is the statistical method that indicates if there is any relationship between the two variables and it also shows the strength of the relationship. It is the identification of the significant connection or pattern between the two variables. The study employed Pearson's correlation analysis to understand the association between variables. Analysis results are directed toward the existing significance that can be either positive or negative. The results that were withdrawn from the correlation analysis are below in Table 4.

Table 4. Correlation Matrix

Variables	PI	GA	GPV	GPT	GPR	PER	
PI	1						
GA	.792**	1					
GPV	.782**	.848**	1				
GPT	.804**	.808**	.873**	1			
GPR	371	334	.216	.195	1		
PER	.717**	.668**	.684**	.702**	.150**	1	

^{**} Correlation is significant at 0.01 level (2-tailed)

The correlation between green awareness and purchase intention was found moderately positive and statistically significant (r = .792, p < 0.01) that means

increase in green awareness will also increase green purchase intention. The correlation between green perceived value and purchase intention was found moderately positive and significant (r = .782, p < 0.01). The correlation between green perceived trust and purchase intention was also found highly positive and statistically significant (r = .804, p < 0.01) which indicate if green perceive trust is high green purchase intention is also high. The correlation between green perceived risk and purchase intention was found significantly negative (r = -.371, p < 0.01). This indicates that increase in green perceived risk will decrease green purchase intention Moreover, the last variable, has a correlation between perceived environmental responsibility and purchase intention moderately positive and statistically significant (r = .717, p < 0.01) that means increase in perceived environmental responsibility will also increase green purchase intention.

4.4. Regression Analysis

Regression analysis is the identification of the extent to which an independent variable influences a dependent variable. The procedure of performing a regression helps positively to determine all the factors which matter the most. Also, those factors might be ignored, they also affect others too. According to Alchemer (2018), there are two kinds of variables; one is the dependent variable, and the other is the independent variable. The dependent variable is the main factor that one is trying to predict or understand whereas the independent variable is the factor that one hypothesizes and that has an impact on the dependent variable. The regression analysis is shown in Table 5.

Table 5. Regression Analysis

Variables	В	Std. Error	R ²	Adjusted R ²	F	t-value	P-value
Constant			.749	.745	178.254		
GA	.278	.061				4.55	.000
GPV	.265	.077				3.89	.000
GPT	.428	.075				5.69	.000
GPR	109	.024				-4.54	.003
PER	.303	.049				6.12	.000

The study was conducted to determine if green marketing can influence consumers purchase intention with green products. It was hypothesized that green awareness, green perceived value, green perceived trust, and perceived environmental responsibility will significantly predict purchase intentions of consumers. To test the hypothesis multiple regression analysis was used. Results show that $R^2 = 0.745$ depicts that 74.5% of variance in purchase intention can be accounted for by five predictors

collectively, F (5,299) = 178.25, p < 0.001. Observing the unique individual contributions of predictors, results shows that green awareness (β = .278, t=4.55, p=.000), green perceived value (β = .265, t=.389, p= .000) green perceived trust (β = .428, t=5.69, p=.000), and perceived environmental responsibility (β = .303, t=6.12, p=.000) positively predict purchase intention. This suggests that green marketing successively enhances green awareness, green perceived value, green perceived trust, and environmental responsibility in the consumers which can actively increase consumers' green purchase behavior. Furthermore, results also revealed that green perceived risk negatively but significantly predicts the purchase intention of consumers for green products ($\beta = -.109$, t=-4.54, p=.003). This shows that if there is a possible risk to the product's greenness the consumers' intention to make a purchase will be unlikely. The predictability of the five variables was in the following descending order: green perceived trust (β = .428, p=.000), perceived environmental responsibility (β = .303, p=.000), green awareness (β = .278, p=.000), green perceived value (β = .265, p= 3.89), green perceived risk (β = -.109, p=.003). The summary of the hypothesis result is shown below in Table 6.

Table 6. Summary of Results

Hypothesis	Parameters	Results
H ₁ : Green Awareness to Purchase Intention	$\beta = 0.278$, Sig = 0.000	Supported
H₂: Green Perceived Value to Purchase Intention	$\beta = 0.265$, Sig = 0.000	Supported
H ₃ : Green Perceived Trust to Purchase Intention	$\beta = 0.428$, Sig = 0.000	Supported
H ₄ : Green Perceived Risk to Purchase Intention	$\beta = -0.109$, Sig = 0.003	Supported
H _s : Perceived Environmental Responsibility to Purchase Intention	$\beta=0.303\text{, Sig}=0.000$	Supported

The results of the regression analysis indicated that the hypothesis H_1 , H_2 , H_3 , H_4 , H_5 were accepted significantly.

5. Conclusion and Discussion

In environmental management, there is a purchase intention and green perceived risk that is alleged in the study. The study then provides a framework of green purchases and their intentions, and then they are further analyzed with their perceived value, perceived risk, perceived environmental responsibility, and perceived trust. The outcomes gathered show us that the green perceived trust is related positively to purchase intention. Similarly, the study indicates that the green perceived value is positively related to purchase intention. In addition, the study shows us the positive relation between green perceived risk towards perceived intention. Also, the study then found out that environmental responsibility is positively related to purchase intention

and is also one of the important constants that consumers consider which makes an intention to purchase (Darnall et al., 2008).

The study has several contributions to it. First, a new framework of research is made through purchase intention and green marketing with the use of a mixture of concepts. Moreover, the addition to the contribution in second place is that this study develops a source of research, which helps us to explain the issues that are made through numerous concepts of product greenness and to increase the intention of people so they can make the perception of products to purchase according to their needs under the green system. Thirdly, this study contributes to the field of green marketing by broadening the research on consumer perceived value and consumer purchase intention. This study also contributes to the field of green marketing by expanding the research on customer trust and their perceived risk. Fourthly, this study also expands the research on perceived environmental responsibility and purchase intention, which are found within the category of green marketing. The last contribution it has is on the explanation of lowering consumer perceptions of risk related to product sustainability can serve to reduce consumer skepticism and increase consumer trust in green products.

Also, there is a relation between PI and the other variables it is connected to, those are GA, GPT, GPR, PER, and GPV; which are discussed as well. The paper is most helpful for consumer research on their trust and risks in the arena of green marketing. The purpose of the research is to know the relationship among all the variables. Hence, the companies should focus more on green perceived risk for increasing the purchase intention of the consumers. The most helpful start for the marketing people is the strategies they can make to reduce the green risk perceptions so they can serve the latent customers in developing the green trust and they can make a long relationship which would last long in this environmental era. Also, risk is the main thing to focus on the consumer behavior as the consumers would be the most advised for the least risk than the advantages in the process of purchase. As green perceived risk could also be the one decreasing green perceived trust and purchase intention then the marketers would be eradicating the option in reduction of green perceived risk. Green awareness was a problem that every person had an issue with (Green et al., 1996). Moreover, the relation of green awareness is weaker. After the tests, it was seen that there were no specific efforts placed to extend awareness to the consumers. Hence, there can be an argument regarding the significance of efforts and money spent on funds that would not increase purchase intention, the fund should be spent on the various other variables. Though the firms want to make the performance of marketing to be in longterm, the problem would be their establishment towards the mission environmentally which would be the strategy of the business for promoting green products.

5.1. Research Limitation and Contribution

Green marketing is a relatively new topic in developing countries that ought to be addressed further in order to accomplish desired objectives that benefit everyone. One of substantial challenges that encountered was dearth of research and literature related to topic. Moreover, it's most significant to see that there are limited resources in our study, especially in Pakistan and it is representative of all the people of Pakistan. If these results are applied to another sample at a different place, they may differ. Time constraint was also a major limitation. This study is unique as it focuses on green products as those are most beneficial for our environment. The risks, awareness, trust, and responsibilities that come along with them are too explained in detail. This study also contributes to the field of green marketing by broadening the research on green marketing and consumer purchase intention.

5.2. Further Recommendation

In the future, studies regarding academicians can focus on green marketing and consumer purchase in different countries and there can be comparing analyses also the sampling size of the respondents can be larger. Also, the effect of demographic variables is not investigated in this study; future research can consider this area as well.

And, for the business side, green marketing and consumer intention are the areas to be searched in order to figure out their customers' intentions.

References

- Alamsyah, D. P., Suhartini, T., Rahayu, Y., Setyawati, I., & Hariyanto, O. I. B. (2018). Green advertising, green brand image and green awareness for environmental products. *IOP Conference Series: Materials Science and Engineering*, 434(1). https://doi.org/10.1088/1757-899X/434/1/012160
- Ali, A., & Ahmad, I. (2016). Environment Friendly Products: Factors that Influence the Green Purchase Intentions of Pakistani Consumers. *Pakistan Journal of Engineering, Technology & Science*, *2*(1). https://doi.org/10.22555/pjets.v2i1.697
- AMA. (2017). Green Marketing. American Marketing Association.
- Anamaria, C. (2014). *Green Marketing Role in Study Waste Management. Vol. II*, 2014. https://seaopenresearch.eu/Journals/articles/NIS_4_12.pdf
- Ansu-Mensah, P. (2021). Green product awareness effect on green purchase intentions of university students': an emerging market's perspective. *Future Business Journal*, 7(1), 1-13.

- https://doi.org/10.1186/s43093-021-00094-5
- Arshad, R., Mahmood, U., Siddiqui, H., & Tahir, A. (2014). An Empirical Study about Green Purchase Intentions. *Journal of Sociological Research*, *5*(1), 290–305. https://doi.org/10.5296/jsr.v5i1.6567
- Barbara G Tabachnick, L. S. F. (2007). Exploring Multivariate Statistics. *Research Methods in Public Administration and Nonprofit Management*, 233–250. https://doi.org/10.4324/9781315181158–21
- Bhaskar, P. P., & Kumar, D. P. (2016). Customer Loyalty on E-Commerce. / *International Journal of Management Research & Review *Corresponding Author*, 6(4), 2249-7196. www.ijmrr.com
- Chen, Y. S. (2010). The drivers of green brand equity: Green brand image, green satisfaction, and green trust. *Journal of Business Ethics*, *93*(2), 307-319. https://doi.org/10.1007/s10551-009-0223-9
- Chen, Y. S., & Chang, C. H. (2012). Enhance green purchase intentions: The roles of green perceived value, green perceived risk, and green trust. *Management Decision*, *50*(3), 502–520. https://doi.org/10.1108/00251741211216250
- Darnall, N., Jolley, G. J., & Handfield, R. (2008). Environmental management systems and green supply chain management: Complements for sustainability? *Business Strategy and the Environment*, 17(1), 30-45. https://doi.org/10.1002/bse.557
- Deshmukh, D. A., & Bhalerao, V. R. (2015). Green Marketing: Greening the 4 Ps of Marketing. *International Journal of Knowledge and Research in Management & E-Commerce*, *5*(2), 4-8. https://www.researchgate.net/publication/310345086_Green_Marketing_Greening_the_4_Ps_ of_Marketing%0Ahttps://www.researchgate.net/publication/310345086
- Dumitru, A. (2013). A Look on Green Marketing Management. Society for Business and Management Dynamics. 3(2), 111-114.
- Glegg, G., Richards, J., Heard, J., and Dawson, J. (2005). *Barriers to Green Buying: Household Chemicals. A Report for the Clean Water Initiative*. https://www.sas.org.uk/wp-content/uploads/sas-barriers-to-green-buying.pdf
- Green, K., Morton, B., & New, S. (1996). Purchasing and environmental management: interactions, policies and opportunities. *Business Strategy and the Environment*, *5*(3), 188–197. https://doi.org/10.1002/(SICI)1099-0836(199609)5:3<188::AID-BSE60>3.0.CO;2-P
- Huang, Y. C., Yang, M., & Wang, Y. C. (2014). Effects of green brand on green purchase intention. *Marketing Intelligence and Planning*, *32*(3), 250–268. https://doi.org/10.1108/MIP-10-2012-0105
- Jain, V. K., Dahiya, A., Tyagi, V., & Dube, P. (2021). Predicting factors affecting green purchase intentions towards green products. *World Review of Science, Technology and Sustainable Development*, 17(4), 360. https://doi.org/10.1504/wrstsd.2021.10038889
- Juliana, Arifin Djakasaputra, Rudy Pramono, J. (2020). Green perceived risk, green viral communication, green perceived value against green purchase intention through green satisfaction. *Journal of Industrial Engineering & Management Research*, 1(2), 124-139.
- Junarsin, E., Pangaribuan, C. H., Wahyuni, M., Hidayat, D., Putra, O. P. B., Maulida, P., & Soedarmono, W. (2022). Analyzing the relationship between consumer trust, awareness, brand preference, and purchase intention in green marketing. *International Journal of Data*

- and Network Science, 6(3), 915-920. https://doi.org/10.5267/j.ijdns.2022.2.005
- Keller, K. L. (1993). Conceptualizing, measuring, managing. Journal of Marketing, 57, 1-22.
- Kumar, Prashant, B. M. G. (2015). Factors affecting consumers' green product purchase decisions. *Marketing Intelligence & Planning.*
- Lam, A. Y. C., Lau, M. M., & Cheung, R. (2016). Modelling the Relationship among Green Perceived Value, Green Trust, Satisfaction, and Repurchase Intention of Green Products. *Contemporary Management Research*, *12*(1), 47–60. https://doi.org/10.7903/cmr.13842
- Lasuin, C. A., & Ching, N. Y. (2014). Factors Influencing Green Purchase Intention among University Students Charlie Albert Lasuin * and Ng Yuen Ching. *Malaysian Journal of Business and Economics*, 1(2), 1-14.
- Lee, K. (2008). Opportunities for green marketing: Young consumers. *Marketing Intelligence and Planning*, *26*(6), 573–586. https://doi.org/10.1108/02634500810902839
- Lee, K. (2009). Gender differences in Hong Kong adolescent consumers' green purchasing behavior. *Journal of Consumer Marketing*, *26*(2), 87–96. https://doi.org/10.1108/07363760910940456
- Mahmoud, T. O. (2018). Impact of Green Marketing Mix on Purchase Intention. *International Journal of ADVANCED AND APPLIED SCIENCES*, *5*(2), 127–135. https://doi.org/10.21833/ijaas.2018.02.020
- McKnight, D. Harrison, Vivek Choudhury, and C. K. (2002). The impact of initial consumer trust on intentions to transact with a web site: a trust building model. The journal of strategic information systems. 11(3-4), 297-323.
- Mitchell, V. (1999). Consumer perceived risk: conceptualisations and models. *European Journal of Marketing*, *33*(1–2), 163–195. https://doi.org/10.1108/03090569910249229
- Mourad, M., & Ahmed, Y. S. E. (2012). Perception of green brand in an emerging innovative market. *European Journal of Innovation Management*, *15*(4), 514–537. https://doi.org/10.1108/14601061211272402
- Netemeyer, R. G., Maxham, J. G., & Pullig, C. (2005). Conflicts in the work-family interface: Links to job stress, customer service employee performance, and customer purchase intent. *Journal of Marketing*, 69(2), 130–143. https://doi.org/10.1509/jmkg.69.2.130.60758
- Ottman, Jacqueline, N. B. B. (1998). Green Marketing: Opportunity for Innovation. *Journal of Sustainable Product Design*, *60*(7), 136–667.
- Özekan, D. (2020). Closing the Loops: Business Model Approaches for Circular Economy, Ed., Hacer Neyir Tekeli, Ebru Gül Yılmaz, Peter Lang Publishing, March 2020, 77-95.
- Paço, A., & Gouveia Rodrigues, R. (2016). Environmental activism and consumers' perceived responsibility. *International Journal of Consumer Studies*, 40(4), 466-474. https://doi.org/10.1111/ijcs.12272
- Patterson & Spreng. (1997). Modelling the relationship between perceived value, satisfaction and repurchase intentions in a business-to-business, services context: an empirical examination. *International Journal of Service Industry Management*.
- Patwary, A. K., Omar, H., & Tahir, S. (2020). The impact of perceived environmental responsibility on tourists' intention to visit green hotel: The mediating role of attitude. *Geojournal of Tourism and Geosites*, *34*(1), 9-13. https://doi.org/10.30892/GTG.34101-612

- Pavida Pananond, & Carl P. Zeithaml. (1998). The international expansion process of MNEs from developing countries: A case study of Thailand's CP Group. *Asia Pacific Journal of Management*, 15, 163-184.
- Peattie, K., & Ratnayaka, M. (1992). Responding to the green movement. *Industrial Marketing Management*, 21(2), 103-110.
- Peattie, K., & Crane, A. (2005). Green marketing: legend, myth, farce or prophesy? *Qualitative Market Research: An International Journal.* https://doi.org/10.1108/13522750510619733
- Peter, J. P., & Ryan, M. J. (1976). An Investigation of Perceived Risk at the Brand Level. *Journal of Marketing Research*, 13(2), 184. https://doi.org/10.2307/3150856
- Polonsky, Michael Jay, and P. J. R. I. (2001). Reevaluating Green Marketing: A Strategic Approach. *Business Horizons*, 44(5), 21–30.
- Polonsky, M. J. (1994). An Introduction to Green Marketing. *Electronic Green Journal*, *1*(2). https://doi.org/10.5070/G31210177
- Polonsky, M. J. (2011). Transformative green marketing: Impediments and opportunities. *Journal of Business Research* 64.12, 64(12), 1311–1319. https://doi.org/https://doi.org/10.1016/j.jbusres.2011.01.016
- Qwr, U. (2015). Green Marketing. Academia. Edu.
- Solmaz. (2020). Likert scale: Definition and how to use it. Mentimeter.
- Suki, N. M. (2013). Green awareness effects on consumers' purchasing decision: Some insights from Malaysia. *International Journal of Asia-Pacific Studies*, *9*(2), 49–63.
- Sweeney, J. C., Soutar, G. N., & Johnson, L. W. (1999). The role of perceived risk in the quality-value relationship: A study in a retail environment. *Journal of Retailing*, *75*(1), 77–105. https://doi.org/10.1016/S0022-4359(99)80005-0
- Tarabieh, S. M. Z. A. (2021). The impact of greenwash practices over green purchase intention: The mediating effects of green confusion, Green perceived risk, and green trust. *Management Science Letters*, 11, 451-464. https://doi.org/10.5267/j.msl.2020.9.022