

FACTORS INFLUENCING GREEN PURCHASE BEHAVIOR OF YOUNG PEOPLE IN PAKISTAN: THE MEDIATING EFFECT OF ENVIRONMENTAL ATTITUDE

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**Abstract**

The purpose of this study is to learn about the Green Purchase Behavior (GPB) of young people in Pakistan. This study investigates the impact of Environmental Knowledge (EK), Message through Media (MTM), and Green Loyalty (GL) on the Green Purchase Behavior (GL) of young consumers in Pakistan. Moreover, the said research aims to investigate the mediating role of Environmental Attitude (EA) in the association between EK, MTM, GL, and GPB. However, the results of the study show that EK, MTM, and GL significantly impacted GPB. The result also shows that environmental attitude mediates the association between the main costal variables. Furthermore, in order to enhance GPB, the government can play a vital role by supporting financially entrepreneurs who want to introduce eco-friendly goods to local or international consumers.

## Introduction

The increased population has changed the pattern of consumption. The changes in consumer behavior will be affected directly or indirectly by the people's interests. Due to new consumption methods, many environmental variations have occurred, like global heating, increment in environmental pollution, and changes in the terminal decline in fauna and flora (Chen & Chai, 2010). Global heating, lack of natural resources, and acid rain have been some negative environmental results associated with economic development and growth (Joshi & Rahman, 2016). People's health at an individual or friendly level is affected by natural problems. People have realized environmental difficulties due to their consumption behaviors. They have been trying to change their buying behavior. They adopt those buying patterns that have a less negative impact on the environment. So, the concept of green purchasing emerged in the 60s and 70s. For instance, in 1988, the UN intergovernmental panel on climate change; in 1997 the Kyoto protocol, and in 2016 Paris Climate Agreement have been taken to manage the people's bad impact on the environment. Green buying behavior means buying those beneficial products for people and the beneficiary of the environment. Researchers defined green products in such a way that the green market gives those eco-friendly services and products (Jiang, 2013)

Green innovation considers the environmental benefit while producing goods or services (Veleva & Ellenbecker, 2001), which helps to decline the utilization of resources in manufacturing and provides gamesmanship (Veleva & Ellenbecker, 2001). Green buying means purchasing eco-friendly goods and prohibiting buying those products which harm surroundings and creatures (Schaefer & Crane, 2005). As a nature-friendly consumer, the green customer keeps in mind the public effects of their consumption and tries to bring a change in society (Moisander, 2007). As the people's consumption patterns changed, the organizations

started to produce organic products. But in the early days, organizations fail to convert the eco-friendly willingness to action (Young, Hwang, McDonald, & Oates, 2010). And a few years ago, there was very little proof of an increase in eco-buying behavior. Although people have a good attitude toward eco buying, green buying remains 1-3% off while market share (Soomro, Mirani, Ali, & Marvi, 2020). Most early research shared a weaker relation between positive attitudes toward green purchasing behavior (Vernier, Monceaux, & Daille, 2011). Researchers explored many factors that have a great influence on Green Purchase Behavior. To identify those factors, young people are the perfect decision. Young people are the future decision-makers (Soomro et al., 2020). Young people are mostly attracted to using eco-friendly products (Deloitte, 2014). Because of these cases, the company and the government's strategy need to figure out knowledge, views, and purchase behavior of eco-friendly products strategy to uplift the Green Purchase Behavior (Dagher & Itani, 2012).

Knowledge is often considered a significant aspect because of its potential to influence an individual's views and their ability to govern their actions (Shaw & Clarke, 1999). Consumers are more likely to change their behavior due to increased understanding (Schultz, 2002). The power of knowledge has supported people's decision-making, and significantly aided by their grasping and processing of the information required to evaluate available options (Alba & Hutchinson, 2000; Brucks, 1985) which has both a direct effect on an individual's behavior and an indirect influence on one's attitude (Fishbein, 1963). Many studies have reported that messages through media have great effects on young consumers' environmental attitudes (Kollmuss & Agyeman, 2002);(Holbert, Kwak, & Shah, 2003). Message through media is very effective and can identify serious environmental problems which can change the behavior of the consumers, and it has the power to affect social norms (McQuail, 1987).

Communication efforts through many media platforms have been reported to have significant power in reshaping the behavior of consumers (Mee, Clewes, Phillips, & Read, 2004). Consistency has become a business motive for many organizations rather than alternately (Esteban et al., 2019). New long-term planning is needed to stay aggressive in the industry and gain business sustainability (Suki, 2016). Most of the studies have explored antecedents and results of customer loyalty. Loyalty is normally thought about as a critically necessary concept for practical and theoretical motives (Morgan, Mandayam, & Jamal, 2004). Environment attitude means consumers' cognitive reasoning of buying those products which are the least harmful effect on the natural environment. It is grown through independent cognitive and reasoning judgment about eco buying efforts (Eneizan, Wahab, & Wahab, 2016). Nowadays, environmental pollution and weather changes are big issues that require immediate solutions. As the world population increase, the demand for goods and services also increases, which will be the reason for environmental pollution (Kalburan & Haşiloğlu, 2018). Thus, society is on the way to destroying the ecosystem. For that reason, environmental marketing offers effective planning for manufacturing environmentally friendly goods and production processes (Vilkaite-Vaitone & Skackauskiene, 2019). Environment destructions cover weather changes, destruction of ozone, growing pollution, and many other bad effects that directly or indirectly impact the population, government, and business (Zheng, Siddik, Masukujjaman, Alam, & Akter, 2020). So, there is a need to know about factors that may influence consumer green buying behavior.

### Literature Review

In past studies, the importance of ecological marketing has been described (Sawcer et al., 2011). It is noticed that the environmentally friendly concept contains the marketing trends and activity (labelling, production process, advertisement planning, and branding) (Polonsky, 1994). Previous studies (Peattie & Peattie, 1995; Welford, 2013)

defined green marketing as a disciplined pattern that fulfils needs and satisfaction. This activity has been done under the shade of stable profit to build the product (Ahmadzadeh et al., 2017). The harmful changes are in the environment due to miss management. Therefore, organizations will manage these harmful changes. Eco-buying behavior helps firms remain focused on producing environmentally friendly products (Juwaheer, Pudaruth, & Noyaux, 2012). Green marketing is becoming an important concept for businesses while producing sustainable products to better the environment (Papadas, Avlonitis, & Carrigan, 2017). Green marketing is an emerging concept due to environmental sustainability and customer segmentation (Dangelico & Vocalelli, 2017). The green marketing concept is building many strategies (Polonsky, 1994). Green purchasers are important customers who utilize environmental-friendly products and do not damage or harm human beings and the environment. Ecological buying intention has been a most discussed subject matter in recent decades (Martínez, 2015). Economic competition and development and availability of market data have increased customers' consumption patterns and purchasing power (Gelderman, Schijns, Lambrechts, & Vijgen, 2021) For instance, customers can get full product information with the help of technology and the internet. Many alternatives are easily available for consumers (Widyastuti, Said, Siswono, & Firmansyah, 2019) Therefore, customers mostly demand better quality with minimum harm effect on the environment. Environmental-friendly products have become the best choice for customers (Sutduean, Joemsittiprasert, & Jermisittiparsert, 2019). Green purchasing means the purchase of goods that are environmentally sound, reused, and ecological, and preventing purchasing those items that are harmful to the environment and community (Chairunnisa, Fahmi, & Jahroh, 2019) Green consumer intention is measured by consumers' want to purchase green products. These consumers are offensively committed to purchasing eco-friendly products. Purchasing decisions can be affected by the

customer's knowledge about the product (Vafaei, Azmoon, & Fekete-Farkas, 2019). Knowledge means available information that a customer has about a product (Baktash & Talib, 2019). Environmental knowledge plays an important role in purchasing eco-friendly products (Fatoki, 2019). The knowledge level, attitude, beliefs, and level of education shape environmental knowledge about the products and impact their purchasing intention to purchase eco-friendly products (Fatoki, 2019). Education level and knowledge can shape environmental knowledge, and both may be built a change customers' perception of green products (Mahmoud, 2018). Literacy levels may increase the green buying insufficient way (Mahmoud, 2018). Green message through media contains the concept that describes the explicit and implicit relationship of items with nature (Nyagadza, 2021) advertising an eco-friendly lifestyle with the help of products or without products (Tsai et al., 2020) and describes the firm's image that talks about green products (Chandran & Bhattacharya, 2019). However, organizations and governments advertise eco-friendly products according to customers' preferences (Szabo & Webster, 2021). Green message in media has a positive impact on consumer knowledge and leads to buying green products (Szabo & Webster, 2021). At first, the green buying message on media can be successful if it carries information according to customer wants (Shabbir, Bait Ali Sulaiman, Hasan Al-Kumaim, Mahmood, & Abbas, 2020). Several media channels include newspapers, television, radio, websites, banners, billboards, and brochures (Vilkaitė-Vaitonė & Skackauskienė, 2019). Consumers pay heed to innovative ways to advertise green products (Nekmahmud & Fekete-Farkas, 2020). Green loyalty of a customer refers to the general perception of environmental-friendly products (Chin, Chin, & Wong, 2018). Green loyalty is one of those features which leads to buying eco-friendly products (Lam & Li, 2019). Green loyalty relates to the environmental-friendly feature of the customer (Lam & Li, 2019). Green loyalty is important because without it, there are

many negative environmental impacts on society (Papadas, Avlonitis, Carrigan, & Piha, 2019). Therefore, organizations must pay ahead to build green loyalty (Papadas et al., 2019). Attitude means how an individual reacts (positively or negatively) to an activity when told to perform. Researchers investigate that environmental attitude is an organized concept of consumers' evaluation of environmentally friendly purchasing behavior and enclose the consumers' attitude about ecological procurement (Canavari & Coderoni, 2019). Like intension, attitudes affect objective (Groening, Sarkis, & Zhu, 2018). Environmental attitude means caring for environmental issues and performing eco-friendly activities (Nekmahmud & Fekete-Farkas, 2020). According to socio-psychological studies, attitude is the best predictor of an individual's actual behavior (Jaiswal, Singh, Kant, & Biswas, 2021). Several other studies also found that attitude plays an important role in actual buying behavior (Mahmoud, 2018). Attitude is also affected by environmental knowledge, personal influences, media, and green trust (Gelderman et al., 2021). Attitude is one of the key factors that will shape the behavior of the human (Sewwandi & Dinesha, 2022). Attitude is the influential factor that may change an individual actual course of action it is expected that environmental attitude is one of those factors which has influential power-on behavior.

### **Environmental Knowledge and Green Purchasing Behavior**

Client information on the Earth joins the nursery sway, waste organization, hazardous waste, and reused materials. (Mostafa, 2009) tracked down a significant connection between Environmental Knowledge and Green Customer Behavior. Environmental knowledge assumes a multi-layered part in instigating the individual's conduct. The authority of climate information by purchasers helps them evaluate buyers' actions and offer activity methodologies (Cheah & Phau, 2011). Suppose a buyer gets information about the causes and effects of the climate. In that case, the degree

of their mindfulness will improve and urge a positive demeanor toward green items. Moreover, customers' natural concerns critically impacted their capacity to pay for earth-pleasing things (Huang et al., 2020). Staying alert is perceived as a cycle that emerges as the aftereffect of a progression of information and knowledge (Arboleda & Alonso, 2014). Environmental Knowledge indicates information and mindfulness in dealing with ecological problems and arrangements (Zsóka, Szerényi, Széchy, & Kocsis, 2013). Then again, ecological mindfulness alludes to the knowledge and worry about the outcomes of individuals' practices regarding the environment (Madsen & Ulhøi, 2001); (Afsar, Badir, & Kiani, 2016). In light of a few examinations (Strong & Moskalenko, 1998); (Bush, 2007; Sinha, 2008); (Kwatra et al., 2014), information and mindfulness can be utilized conversely in specific settings. Ecological information and mindfulness have been considered one build in the current exploration. People's information on ecological and supportability concerns is fundamental (Fryxell & Lo, 2003). Notwithstanding, other analysts found an uncertain impact of environmental knowledge on disposition to purchase cordial climate items. From now on, the accompanying speculation has been introduced:

H1: Environmental Knowledge has a significant impact on green purchase behavior.

Message through Media and Green Purchase Behavior

Openness to the media is a significant instrument for advancing green purchasing behavior among youngsters. Green promotion impacts particular points of view towards promotion and their expectations to be pleasing to the climate (Kim et al., 2019).

(Mahmoud, 2018) enlarged this theory by assuming media don't impact what they think (first-level agenda theory) but also build a point of view about any person, issue, and object (second-level agenda theory). First-level agenda theory is utilized in environmentally friendly marketing when the media highlight overheating as an important

environmental issue for human beings. Many researchers e.g (Liao, Wu, & Pham, 2020) have scrutinized the agenda-setting impacts of media on people's agendas. (Sugandini, Muafi, Susilowati, Siswanti, & Syafri, 2020) utilized agenda-setting to realize the application of online media to position the plan for green consumer behavior in advertisement claims. Media is profoundly incredible and can raise critical natural problems that affect consumers' reasoning interaction. Furthermore, media claims the ability to impact accepted practice. In media presentation, people related to media multiply natural affirmation stresses by rapidly offering critical figuring out how to everyone. Green things can be promoted in (TV) advertisements; in any case, print notification might energize the sharing of organized information and develop thing picture affirmation among customers. In this way, we may suppose:  
H2: Messages through media have a significant impact on green purchase behavior.

### **Green Loyalty and Green Purchase Behavior**

Client dedication is suggested to the client's behavior to maintain a connection with a foundation by the acquisition of its management and components (Behara, Fisher, & Lemmink, 2002); (Singh & Sirdeshmukh, 2000). Loyalty was a deeply held obligation to re-deprecate or re-purchase a recommended product or supervision later (Oliver, Rust, & Varki, 1997). Client loyalty was additionally a stable uprise of income curve for firms, serving at the same time as a data channel that played a vital role by suggesting the management and items to the closed ones (Reid, 1993). Buyers' loyalty can be identified by behavior, environmental, or attitudinal perspective (Chaudhuri & Holbrook, 2001). This review alluded to the meanings of (Reid, 1993) and (Oliver et al., 1997). It described green client loyalty by stating that the customer needed to connect with a foundation that involved natural or green concerns and then concentrated on re-purchasing or patronizing a recommended product. The enthusiasm with which the assumption to re-buy

was proposed demonstrates a capacity to withstand a higher cost and acquire a variety of things from a foundation.

H3: Green loyalty has a significant impact on green purchase behavior.

### **Environmental Attitude and Green Purchase Behavior**

Attitude means how an individual reacts (positively or negatively) to an activity when told to perform (Kartawinata, Maharani, Pradana, & Amani, 2020). Researchers investigate that environmental attitude is an organized concept of consumers' evaluation of environmentally friendly purchasing behavior and enclose the consumer's attitude about ecological procurement (Genoveva & Levina, 2019). Like intension, attitudes affect objective (Karunarathna, Bandara, Silva, & De Mel, 2020). Environmental attitude means caring for environmental issues and performing eco-friendly activities (Junarsin et al., 2022). The environmental attitude and quality data were observed to determine the green buying behavior of the consumer (Li et al., 2019). Environmental attitude plays an important role when purchasing eco-friendly products (Sharma & Kushwaha, 2019). (Suki & Suki, 2019) stated that environmental attitude played an important role in indicating the recent green buying behavior, and according to previous research, environmental attitude is an important feature of consumers decision making. Environmental attitude encourages buyers to compare eco-friendly products with other products offered (Nekmahmud & Fekete-Farkas, 2020). Similarly, environmental attitude can be described as a consumer's appraisal to clear knowledge about the product's prices (Mahmoud, 2018).

H4: Environmental attitude has a significant impact on green purchase behavior.

**Environmental Attitude Mediates the Relationship between Environmental Knowledge and Green Purchase Behavior.**

Environmental knowledge means consumers know about environmental-related problems and the measures to resolve the environmental problems

(Khan, Royhan, Rahman, Rahman, & Mostafa, 2019). Many studies discussed the importance of environmental knowledge in green purchase behavior. An individual with environmental knowledge has a great ratio to purchasing green products compared to those with no environmental knowledge (Karunarathna et al., 2020). Green purchase behavior will be in a high ratio with proper and enough environmental-related knowledge. Some studies found that environmental attitude is a big deal in green purchase intention while people have sufficient environmental knowledge (Hossain & Khan, 2018). With high environmental knowledge and environmental attitudes, consumers are more loyal to eco-friendly buying (Kartawinata et al., 2020). Environmental knowledge and environmental attitude are linked to Bamberg's study (2003). Therefore, hypothesis 5 is formulated as:

H5: Environmental attitude mediates the relationship between environmental knowledge and green purchase behavior.

**Environmental Attitude Mediates the Relationship between Message through Media and Green Purchase Behavior**

The media plays an important role in environmental protection by disseminating information about green products. Messages delivered through the media nowadays contribute to impact consumer behavior (Kaur, Mishra, Yadav, & Shaw, 2022). Media highlight the issues in the society due to buying the traditional products and show the positive effects of the buying the environmental-friendly products (Goh, Goh, Ariffin, & Salamzadeh, 2019). The media forced the individuals to think about preserving the planet and showing empathy for nature (Novela & Hansopaheluwakan, 2018). Media help the society by environmental education to the people and encouraging the habits of consuming the eco-friendly products and eco-friendly lifestyle (Al-Majali & Tarabieh, 2020). Message through media is incomplete without an environmental attitude about green products. Therefore, the sixth hypothesis can be formulated as

H6: Environmental attitude mediates the relationship between media messages and green purchase behavior.

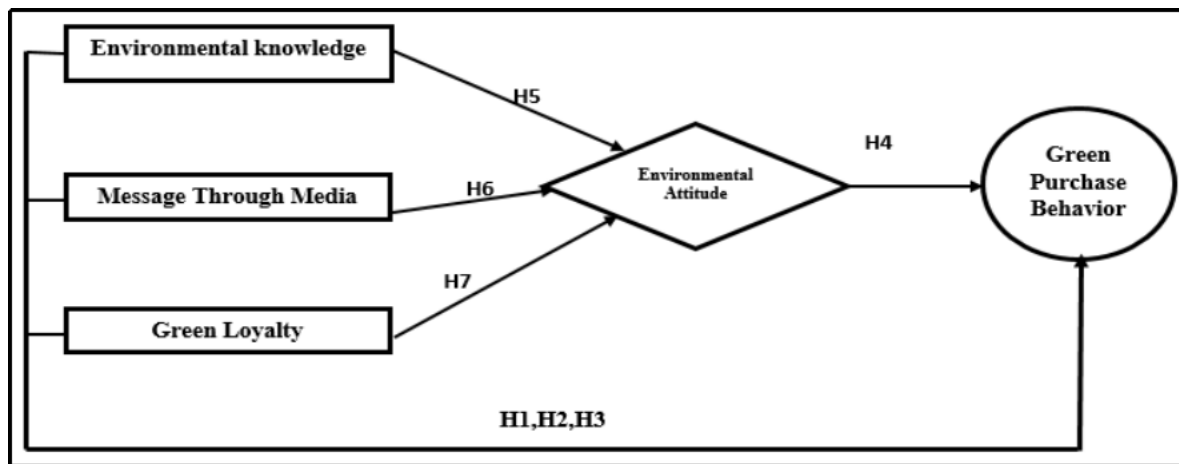
Environmental Attitude Mediates the Relationship between Green Loyalty and Green Purchase Behavior.

Green loyalty is associated with re-purchase green products to benefit the environment (Suki, 2016). Some consumers (Germany, the United States, and Malaysia) rely on information provided on product labels, while others (France) rely on the feel and appearance of product packaging (Anjani & Perdhana, 2021). Trust is also seen as a barrier to green consumption aside from a lack of knowledge, environmental mentality, and previous experiences (Khan et al., 2019). As a result, there is a disconnect between consumer sentiments and green purchase behavior. Loyalty implies that customer has a fair Framework

sense of buying an environmental-friendly product. Loyalty independently cannot be seen, but other concepts are also combined, such as price, experience, and attitude (Karunaratna et al., 2020). Environmental attitude leads to loyalty and purchase intention toward green products (Mahmoud, 2018). Green loyalty is negatively affected by price (Dwipamurti, Mawardi, & Nuralam, 2018).

In some countries like France, the USA, and Germany, environmental attitude is considered a big deal in purchasing green products. Still, sometimes environmental attitudes do not play an important part in purchasing environmental-friendly products in developing countries.

H7: Environmental attitude mediates the relationship between green loyalty and green purchase behavior.



**Methodology**

The researchers used the quantitative research method in this research. The research measures the number of quantities variables after gathering and examining the data, making predictions, and checking causal relationships between variables. A five Likert Scale questionnaire was built to measure a variable. In research, the group of people with common characteristics is known as the population. However, the sample is described as a representative portion of the population. In this study, the population is young people of Gujranwala,

Pakistan. So, university-going students are selected as the population. At the same time, the sample will be based on 300 university-going students of Gujranwala. University of Central Punjab (UCP), Gift University, and Punjab University Gujranwala Campus (PUGC) are selected as samples because these are one of the most popular universities in Central Punjab.

**Results and Discussion**

For demographic items (gender, age, and qualification), the researchers used the frequency distribution tests. The frequency distribution yielded 130 females and 170 males as a result. The first section of the table is gender, and it's evident who the males and females in the study are. Males make up 43.5 percent of the respondents, while females make up 56.5 percent. The participants were divided into four age groups: Under the age of 20, 20-25, 25-30, 30-40, and over 40. According to the findings, 3.4 percent of respondents were under

the age of 20, 48.3% were between the ages of 20 and 25, 39% were between the ages of 25 and 30, 8.3% were between the ages of 30 and 40, and 7% were above 40. The age of the respondents is listed in the second section of Table 1, and the majority of the respondents are between the ages of 20 and 25. 8.3% of the population is between the ages of 25 and 30. To account for multiple respondents, some data was collected from respondents beyond the age of 40, the majority of whom were Ph.D. students.

Demographic Variables		Frequency	Percentage (%)	Valid (%)	Cumulative (%)
<b>Gender</b>	Male	170	56.3	56.3	56.0
	Female	130	43.3	43.3	100.0
<b>Age</b>	20-25	145	48.3	48.3	48.3
	26-30	117	39.0	39.0	87.3
	31-40	25	8.3	8.3	95.6
	41 above	2	7.0	4.3	100
<b>Education</b>	Bachelors	55	17.7	17.7	17.7
	Masters	150	50.0	50.0	67.7
	Mphil/MS	87	29.5	29.5	97.2
	PhD	8	2.7	2.7	100.0

In Table 1-Demographics, it can be observed that people aged from 40 years onward has a percentage of 7%. Meanwhile, the third part of Table 1 is all about the qualification of respondents. The qualification of respondents consists of four portions, i.e., Graduation (4 Years, Masters (3 Years), M-Phil (1.5 Years), and Ph.D. 17.7% of respondents were Graduated, 50% were from MS, 29.5% were from M-Phil, and 2.7% were from Ph.D.

**Reliability Analysis**

To check that the data was reliable, the researchers utilized SPSS 20 to conduct a reliability test. Cronbach's alpha values are used in reliability

analysis to determine how reliable data is. According to Nunnally, if the Cronbach's alpha value is more than 0.7, the instrument is reliable (Ventura-León & Peña-Calero, 2020). The Cronbach's alpha value for all variables is more than 0.7 in the Table 2, indicating that the scales are reliable (Gajghat, Handa, & Himte, 2018). As a result, educational experts assess the questionnaire's reliability (Dr. Daveed Iqbal Ch., Dr. Waseem Ul Rahman). The reliability analysis means to the scale construction, the scale must be consistently reflecting the variables and helped to measure the stability of consistent responses in the questionnaires.

Table 2. Inner term consistency of Cronbach’s alpha

Variable Names	Number of Items	Cronbach’s alpha
Environmental knowledge	5	0.789
Messages through media	4	0.835
Green customer loyalty	3	0.754
Environmental attitude	5	0.717
Green purchase behavior	5	0.765

This part of the analysis discussed the values of mean, standard deviation (SD), and skewness that help determine the normality of data. In the descriptive analysis, researchers also look over the Min and Max values to obtain rid of outliers. The existence of variables is described using descriptive statistics. Skewness values should be between -3 and +3, which is reasonable (Sahril, 2020). In this table, the skewness values of all variables are between -3 and +3, which also determines that the data is normal (Abdulkareem, Mahmud, AbdulGaniyy, &

Aliu, 2020). The minimum and maximum values determine data accuracy, and they must be within the limitations of the instrument’s measuring scale. As previously stated, the maximum and minimum values on the Likert scale run from 1 to 5. For all independent and dependent variables, no value is less than 1, and no value is greater than 5. All of the skewness statistics and the minimum and maximum values are within acceptable limits (Dousin, Collins, & Kler, 2019)

Table 3. Descriptive statistics

	N	Min.	Max.	Mean	Std. Deviation	Skewness	Std. Error
EK	300	1	5	4.402	0.702	0.814	0.134
MTM	300	1	5	3.843	0.618	0.671	0.124
GL	300	1	5	3.432	0.551	0.214	0.134
EA	300	1	5	4.543	0.761	0.705	0.164
GPB	300	1	5	3.591	0.742	0.754	0.154

**Correlation Matrix**

This component of the analysis looked at the correlation between variables. The dependent and independent variables were found to have a substantial relationship. Correlation also evaluated the strength and nature of the association. Table 4 shows the correlation between variables. Table 4, for example, shows the association between independent variables such as environmental

awareness, media messages, green loyalty, and the mediating variable environmental attitude, as well as the dependent variable green buying behavior. Table 4 shows correlation analysis at 0.05 significant levels, with significant relationships between all variables (Nekmahmud & Fekete-Farkas, 2020).

Table 4. Correlation matrix

EK	MTM	GL	EA	GPB	
	EK	MTM	GL	EA	GPB
EK	0.901				
MTM	0.315*	0.758			
GL	0.543**	0.346**	0.756		

EA	0.468**	0.421**	0.482**	0.806
GPB	0.451**	0.461**	0.474**	0.484** 0.810

In this study, the correlation was calculated by using SPSS v20. Correlation depicts that if one variable changes, the related variable trends to change with a specific percentage. The correlation between the independent variables (environmental knowledge, message through media, green loyalty), mediating variable (environmental attitude), and dependent

variable (green purchase behavior) showed the value of 0.451\*\*, 0.461\*\*, 0.474\*\*, and 0.484\*\*, respectively. The value of the Pearson correlation coefficient is between 0.0-0.5, which indicates that a mediating relationship exists between the variables (Kartawinata et al., 2020).

**Regression Analysis**

Table 5. Multiple regression analysis-model summary

Model	Unstandardized		$\beta$	t	Sig.
	B	Std. Error			
Constant	1.130	0.187		5.553	0.000
EK	0.419	0.088	0.383	4.780	0.000
MTM	0.320	0.083	0.312	3.899	0.000
GL	0.356	0.085	0.350	4.001	0.000

*N* = 300, *R* = 0.665, *R*<sup>2</sup> = 0.441, *Adjusted R*<sup>2</sup> = 0.425; *F Stat* = 93.423; *p* < 0.01

**Dependent Variable (Green Purchase Behavior)**

The R exhibited various correlation coefficients in regression analysis. It's the result of combining the correlations of both IVs and DV. Its value is 0.665, showing a mitigated association between all independent variables and the dependent variable. R square is the model's explanatory power. It showed how the independent variable explained variation in the dependent variable. The R square value is 0.441, indicating that independent variables account for 44 percent of the variation in the dependent variable (green buying behavior) (Environmental knowledge, message through media, and green loyalty). It explained the variation in the sample, while the corrected R square revealed the variation in the population, which consisted of three universities in Gujranwala. Beta is the slope of the relationship. However, the significant value of the variables (Environmental knowledge, Mediation Analysis

message through media, and green loyalty) is less than 0.05. The t value is greater than 2 at the same moment. Environmental knowledge has a significance value of less than 0.05. If the t value is more than 2, there is a strong association between environmental knowledge and green purchasing behavior, and the hypothesis (H1) is accepted. The significance value of message through media and green purchase behavior is less than 0.05, and the t value is greater than 2. The relationship between Message through Media and Green Purchase Behavior is also significant, and the hypothesis (H2) is accepted. The significance value of Green Loyalty is less than 0.05. If the t value is more than 2, there is a substantial association between Green Loyalty and Green Purchase Behavior, and hypothesis (H3) is accepted.

Table 6. Mediation analysis of environmental knowledge

Steps	IV	DV	R <sup>2</sup>	F Stat	β	t	Sig
1	EK	GPB	0.385	161.335	0.627	12.123	0.000

Since the principal path between Environmental Knowledge (EK) and Green Purchase Behavior (GPB) is significant, the value of sig. is 0.000, which is less than 0.05 (p<0.05). The t-value is likewise

12.123, which is larger than 2; the Table 6 shows that further mediation stages were examined because the principal path is significant.

Table 7. Mediation analysis of message through media

Steps	IV	DV	R <sup>2</sup>	F Stat	β	t	Sig
1	MTM	GPI	0.366	150.664	0.612	8.009	0.000

The primary path between message through media (MTM) and green purchase intention (GPI) is significant, as indicated by the value of sig. is 0.000, which is less than 0.05 (p<0.05) in the Table 7.

Additional mediation stages were investigated because the t-value is more than 2, indicating that the principal path is substantial.

Table 8. Mediation analysis of green loyalty

Steps	IV	DV	R <sup>2</sup>	F Stat	β	t	Sig
1	GL	GPB	0.375	156.345	0.625	9.031	0.000

The value of sig. is 0.000, which is less than 0.05 (p<0.05), indicating that the principal path between Green Loyalty (GL) and Green Purchase Behavior (GPB) is significant. Because the t-value is more

than 2, indicating that the principal path is substantial, additional mediation stages were investigated.

Table 9. Mediation model summary

Steps	IV	DV	R <sup>2</sup>	F Stat	β	t	Sig
1	EK	GPB	0.377	150.775	0.614	12.279	0.000
2	MTM	GPB	0.660	483.160	0.812	21.981	0.000
3	GL	GPB	0.536	287.268	0.732	16.949	0.000
4	EA		0.537	143.706	0.558	10.776	0.000
	EA	GPB			0.685	9.246	

In Table 9, the results indicate values of F stat, t values, and (significance) p values. The p values establish the significance level at which the hypothesis is accepted or rejected. If the value is less than 0.05, the hypothesis can be accepted. In the first scenario of EK to GPB, the t-value is greater than 2, and the hypothesis is accepted. In the second scenario, MTM to GPB, the hypothesis is

supported because the p-value is 0.000, which is also a significant value.

In the third case of GL to GPB, the hypothesis is accepted after normalized regression weights, with a p-value of 0.000, which is also significant. Determine the nature of the postulated moderators' mediation function in the study by examining the standardized total, direct, and indirect effects. Mediation matrix is shown in Table 10.

**Table 10. Mediation matrix Effect**

	<b>Effect</b>
Total effect of X on Y	0.5525
Direct effect of X on Y	0.4221
Indirect effect of X on Y	0.1304

Table 10 displays the total, direct, and indirect effects of variables. The overall effect, which is 55.25 percent, relates to the Independent and Mediating variables' combined influence on the dependent variable. The 42.21 percent effect of the

independent variable on the dependent variable is depicted by the direct effect. The indirect impact illustrates the mediating variable's 13.04 percent effect on the dependent variable.

**Hypotheses Summary**

Hypothesis summary is shown in Table 11.

**Table 11. Hypothesis summary**

<b>Hypothesis</b>	<b>Statement of hypothesis</b>	<b>Result</b>
H <sub>1</sub>	Environmental knowledge has a significant impact on green purchase behavior	Accepted
H <sub>2</sub>	Messages through media have a significant impact on green purchase behavior.	Accepted
H <sub>3</sub>	Green loyalty has a significant impact on green purchase behavior.	Accepted
H <sub>4</sub>	Environmental attitude has a significant impact on green purchase behavior.	Accepted
H <sub>5</sub>	Environmental attitude mediates the relationship between environmental knowledge and green purchase behavior.	Accepted
H <sub>6</sub>	Environmental attitude mediates the	Accepted

	relationship between media messages and green purchase behavior.	
H <sub>7</sub>	Environmental attitude mediates the relationship between green loyalty and green purchase behavior.	Accepted

**Conclusion and Recommendations Theoretical Implications**

This study contributes to green purchasing literature by giving some theoretical contributions. The research has been conducted to check the green purchase behavior in Pakistan with the help of environmental knowledge, message through media, and green loyalty and see the mediation effect of environmental attitude. Green purchase has become increasingly significant worldwide in the contemporary environment. It has been found that companies are nowadays considering green buying behaviour to be an effective way to advertise and promote business and services. Green buying behaviour is closely associated with the protection of the natural environment. In the current economic climate, the focal point of companies is to increase consumers' green product knowledge because knowledge is considered a driving force (Bahl & Chandra, 2018). Message through media plays an important role in adopting green products

(Chairunnisa et al., 2019). The present study finds that environmental knowledge, message through media, and green loyalty lead to green purchase behaviour. The previous researchers studied the impact of environmental knowledge and messaged through media on green purchase behaviour in Sindh. Still, the previous studies did not count the impact of green loyalty (H.-C. Chen & Yang, 2019). The researchers try to fill this gap and build a positive and strong relationship between green loyalty and youth's green purchase behaviour. Lastly, receiving a response from youth in Punjab, Pakistan, researchers attempt to respond by calling for further research on the use of eco-friendly food in the emerging market's context (Tsai et al., 2020).

### **Managerial Implications**

This study provides valuable insights to businesspeople for designing and manufacturing products according to market demand. It ensures that no such material is present in the manufacture of these products that harm the environment. Pakistan has 60% young people in its population, and they are potential customers for eco-friendly goods. As the big share of the Pakistan market is the potential customer for green purchasing, this research identifies a good time for Punjab students in green entrepreneurship. This new idea helps enterprises start businesses and get first-mover advantages, effective risk management, and cost-efficiency. Because the youth have high buying power (Papadas et al., 2019), they are a potential customer for green purchasing. Friends also motivate them to buy green foods, so that divert to their actions, the environmental issue can be less. The youth is more concerned about the environmental issue than children of old ages. This research helps society economically and ethically.

### **Conclusion**

The research topic was identifying the factors that influence the green purchase behavior of young people in Pakistan, mediating the effect of environmental attitude. This study found that environmental knowledge, message through media,

and green loyalty significantly impact green purchase behavior. Eco-friendly products are the best business opportunity for companies and entrepreneurs to develop innovative and new products that meet the customers' desires and compete in the market. Moreover, it was analyzed that environmental attitude reflects eco-buying behavior of a consumer in developing countries. Somehow, people in developing countries are environmentally conscious; they buy the environmental-friendly products. In this way, they have a significant impact on society by ensuring that their activities are carried out in a way that minimises harmful environmental impacts. Green buying behavior is gaining traction, providing new chances for businesses and marketers to establish proactive environmental strategies and produce environmentally friendly or green products. Effective marketing strategies can help position this product category in a competitive field and gain a competitive edge by differentiating. The collected data were analyzed using SPSS v20, and the extension of Preacher and Hayes (2008) was used to test the mediation. Therefore, it was found that environmental knowledge, message through media, and green loyalty provide a role in shaping their experience into green purchase behavior. Without environmental knowledge, messages through media, and green loyalty, customers could lose interest in developing their adoption of green products. The previous studies also support the relationship between environmental attitude and green purchase behavior. The researchers investigated that environmental attitude is important in shaping interest and intention toward green purchases.

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