# Effect of Interpersonal Influence, Altruism and Environmental Knowledge on Green Purchase Behavior Through Environmental Attitude and Green Purchase Intention

# Waleed Ali Minhas & Muhammad Furqan

Institute of Business and Management University of Engineering and Technology, Lahore Email: waleed.minhas@hotmail.com

### **Abstract**

The last decade has witnessed rapid environmental degradation around the globe due to multifarious factors. In fact, 2010-19 has been termed as the warmest decade ever to have graced "Planet Earth", whereas 2019 was noted to be one of the warmest years ever. The masses now realize the importance of protecting the environment by exhibiting GPB and using eco-friendly products. To curb the menace of the ongoing COVID-19 strict lockdowns have been imposed almost everywhere in the world. The lockdown required immediate closure of all human activities which resulted in a drastic improvement in the environmental conditions around the globe. Thereby, highlighting the importance of adopting green practices. As a result, green marketing is growing in developing countries. Pakistan is the sixth populous country in the world. People have become more sensitive about ecological conditions, particularly in Lahore Pakistan. Therefore, research has been conducted to highlight the importance of eco-friendly products. Quantitative research has been carried out to study the influence of psychographic variables on GPB. Additionally, the effect of mediators and moderators has been explored among Pakistani young consumers. In order to measure the variables, different validated measures have been used. Through convenience sampling (N = 384) young consumers participated from different universities of Lahore. Findings of research have been analyzed by using SPSS-23 and Amos-23. Implications of the present study has been discussed in cultural and ecological contexts. The tested model based on different psychographic variables will provide a further addition in the existing body of literature particularly in the perspective of environmental psychology. The results of present study will be helpful for green marketers, manufacturers, policymakers to restructure and redesign their strategies of marketing to promote ecofriendly products among Pakistani young consumers.

Keywords: EK, GPI, GPB, ALT, IPI, EA

#### Introduction

COVID-19 has been termed as the deadliest pandemic to have hit the world in the last century. The lives lost count is increasing alarmingly, whereas the number affected continue to rise exponentially. The World has witnessed drastic changes on all fronts. The WHO suggested lockdowns to curtail the number of people affected from the disease. China took the lead in the implementation and got success. However, the lockdown brought startling revelations as far as the environment was concerned. The earlier deplorable environmental conditions improved remarkably due to the closure of activities which released poisonous carbon monoxide and other harmful gases into the atmosphere. It was reported in National Geographic that with lockdown widespread all over the world April,2020 had global carbon emissions down by 17% than the last year. It is widely believed that a pandemic such as COVID-19 could have only resulted in the widespread cut down of the carbon emissions and the scenario is likely going to be the same whenever the pandemic ends.

The pre-Covid-19 findings revealed Lahore to be the second most polluted city across the globe in the perspective of air quality ranking. The air quality index on 30<sup>th</sup> October, 2019 was reported to have reached "484" which was way above "300" the threshold level for hazardous air quality. As a result, the population in Lahore is facing adverse experiences of air pollution for the last four years (Dawn, 2019). But the enforced lockdown due to COVID-19 has resulted in significant improvement in the environment of Lahore. Majority of inhabitants have been able to witness clear blue sky of Lahore for the first time in their lives. The air quality index has nose-dived from "484" in Oct,2019 to a moderate "80" (05 July, 2020). Earlier, due to the un-healthy pre-Covid-19 environmental condition, the Government of Pakistan realizing the grave danger had prioritized the need and importance of green marketing and production of eco-friendly products (Hashim, Baig, Abrar, Afzal, & Mohsin, 2019). In this context, under the environmental movement of Prime Minister Pakistan "Clean and Green Pakistan Movement," JS bank took the lead in the initiative and with the help of Minister of Climate Change and Deputy Commissioner of capital city in Pakistan delivered cotton bags at different shopping malls to create consciousness about green products (The News, Dec, 28, 2019).

UNICEF and WHO (2012) reported that according to United Nations, in developing countries, proper sanitary systems are not available for about 2.5 billion people. Similarly, it is estimated that about more than 780 million people are deprived of safe drinking water. Consequently, about 2.3 million people are suffering from water borne diseases all over the world (UNSECO, 2003). Similarly, air pollution also exists in the developing countries. In this context, the second most polluted city in terms of air quality world ranking is Lahore. Environmentalist, scientists, social organizations,

and society have initiated concrete efforts to control the deterioration of environmental conditions such as global warming, deforestation, unhealthy smoke emissions from factories and vehicles. Different organizations like World Bank, SAARC, UNO, and WHO have shown concerns over the rapid environmental deterioration, they are determined to support green practices to improve the environment situation and promote the existence of a healthier and a clean environment for the world population. The United Nations Climate Change Conferences have been organized yearly since 1995 with an agenda to highlight the grave consequences of environmental deterioration and to urge the superpowers of the world to cut down their carbon footprint in the world and play a hand in preserving the environment. In fact, to increase the awareness of eco-friendly environment 5th June is celebrated as World Environmental Day. Similarly, the Paris agreement which was enacted in 2015 pledges its 116 member countries to enhance their ability to combat climate change. It is pertinent to mention the name of Greta Thunberg, a 17-year-old Swedish climate activist. She has been in the news for her outspoken views regarding climate change and advocates the cause to the leading stalwarts of the World to reduce climate stress by cutting down unhealthy carbon emissions. Basically, the main focus of green marketing is to promote and protect the environment by producing high-quality natural products and reduce the adverse effects of pollution on the environment. Media campaigns have started to promote and protect the earth from deterioration. Furthermore, all over the world different efforts have been made to save natural resources which positively affects the environmental conditions (Sharma, 2020).

Today's world, the main themes of marketing strategies and practices are ethics and social responsibility of business. Consumers and organizations are committed to observe environment ethics (Yadav & Pathak, 2017). In order to exhibit environmentally ethical behavior, the consumers are trying to shift their buying preferences towards eco-friendly products (Nimse, Vijayan, & Kumar, 2007). Despite being aware of the severity of the environmental problem the consumers buying behaviors does not reflect the urge to buy green products (Wang, Wong, & Alagas, 2020). For the promotion of ecological products social responsibility became the center of attention that is associated with biodiversity and sustainability (Kaufmann, Panni, & Orphanidou, 2012). The past decade has seen the addition of a new business phenomenon gain prominence, it envisages to incorporate environmental concerns into corporate practice (Ali & Ahmad, 2016). Nowadays people are more informative and well aware of various environmental problems. Every soul wants to breathe in a toxic free environment.

Previous researches have indicated that due to ample EK, the attitude and intention towards the green lifestyle on the rise. This has led to a larger proportion of people opting for greener products (Wang et.al 2018). Manufacturers become more

cognizant about the concept of green manufacturing. They have realized that ecofriendly products are the order of the day and can open new business avenues. There is a sense of urgency among all the business as it has been reported that Walmart is demanding environmentally friendly products from its leading suppliers mainly General electric and Procter & Gamble (Haws, Winterich, & Naylor 2014). The consumers on the other hand, are well versed with the health hazards toxic environment poses towards their wellbeing. The regulations are in place by Government's to make the environment eco-friendly. The recognition of the fact that green marketing has a long-term benefit on the environmental conditions and economy of a country. Understanding the green consumer behavior and marketing of the green products remains to be one of the most researched areas off late (Paco, Shiel, & Alves, 2019). Therefore, marketers are trying their best to increase green marketing, and firms are also reinventing their strategies of marketing which will be beneficial for environment in future (Jain, Darbari, Kaul, & Jha, 2020).

Different researchers in developing countries like China, India, Bangladesh & Hongkong conducted researches on green marketing and reported that different factors are affecting GPB among consumers. The researchers highlighted the most critical factors to be culture and economic status of a country and reported that their importance was very critical to study while exploring green marketing (Chen & Chai, 2010; Khare, 2015; Ko & Jin, 2017). Pakistan, being a developing country is facing a plethora of ecological issues. The giant floods, landslides due to deforestation and the recent "smog" outbreak in winters are some of the environmental challenges confronted by Pakistan. In recent times, the Pakistani market has seen the addition of electric cars and fact moving consumer goods in the list of the green goods present in Pakistan but unfortunately, the research in Pakistan on "going green" and consequently green marketing is still in its inception and needs further exploration indigenously (Sattar & Younus, 2016).

Green Marketing as per American Marketing Association has been termed as the promotion of products which are safe to the planet earth. The green products are assumed to have been manufactured with the raw material whose degradation would not affect the environment, has no toxic ingredients, has no pesticides, and has environmentally friendly packing (Liobikiene, Mandravickaite, Bernatoniene, 2016). The consumers need to be made eco-literate for the adaption of green products over the regularly used products. The comprehension of the phenomenon of GPB and the environment-friendly marketing, young consumers are the basic unit to study for the research point of view because they consume more green products as compared to other age groups as pointed in previous research. A research conducted by Lee (2008) reported, young adults are those consumers which are the driving force for advancement of economies of a country. Regardless of the fact that young consumers

are playing a vital role for the advancement of such products which are favorable for the environmental well-being, therefore it is necessary to study purchase behavior towards such products which are not hazardous for others and this behavior is being affected by norms, standards, IPI (Jaiswal & Kant, 2018).

Psychographic variables directly affect the behavior towards consumption of eco-friendly products, for instance, a research was conducted on young consumers and the results pinpoint towards ALT directly impacts the behavior towards such products which are beneficial for environment. Altruistic personality trait of an individual impels the consumer to consume such products which are helpful for others to make the atmosphere clean. Relevant to green marketing, the concept of ALT is considered as a helping behavior towards society by consuming green products and making the environment eco-friendly (Carrete, 2012).

The present quantitative research will explore the theoretical explanation of behavior towards such products which are favorable for environmental well-being in indigenous context. The purpose of present study is to explore different aspects which affects the behavior of young adults to consume such products which are not harmful for environment. Different psychographic factors considered as predictors like IPI, ALT, and environmental awareness directly affect behavior of young consumers towards green products in this study. Moreover, green purchase attitude and intention makes a path between predictors of present study and purchase behavior towards environment friendly products. Furthermore, it is assumed that this association is being moderated by demographic variables of sample for instance age, gender etc.

#### **Literature Review**

This section is based on available literature on study variables with reference to green marketing. The present research focuses on the psychographic variables which influence the consumption of young adults towards ecological products. The literature review about green marketing explains the phenomenon regarding behavior of young adults towards consumption of green products (Sarumathi, 2014). Depending upon the previous literature, present research hypothetical model is designed to explore this phenomenon indigenously.

GPB refers to consumers' perception of the quality of the product during its purchase on the basis of an ecological perspective. It is predominantly referred to as those purchase practices which are related to environmentally friendly products. Basically, consumer purchase intention is the process of thinking for the purchase of a particular product (Blackwell et al., 2006). When a consumer plans to buy a certain product, it will shape ones' intentions which influence consumer behavior (Wu, Yeh, & Hsiao, 2011). The intention towards these products is being influenced by different

elements for instance quality of product, labels, presentation, and performance of ecofriendly products (Maniatis, 2015). Furthermore, different researchers like Lu, Zhao, & Wang, (2010) found that consumers' perception and positive image increase the chance of consumers' purchase behavior towards any product. The perceived value of the product and manufacturer industry plays a significant role to increase the purchase intention towards eco-friendly products (Wu et al., 2011).

In the context of environmental psychology, the results of the study indicate that EA acts as a mediator for the prediction of buying behavior towards green products among Indian young consumers. Furthermore, EK, IPI, ALT considerably affects the attitude of buyers (Fatah Uddin & Khan, 2018). A study conducted on Chinese consumers revealed that green products were gaining more attention due to altruistic motivation (Chen & Deng, 2016). A study on South Korean consumers revealed that EK was a significant factor to persuade consumers to exhibit GPB (Park & Sohn, 2018). Evidence suggests that the green products available in the markets are relatively in high prices (D'Souza, Taghian, & Khosla, 2007). Therefore, for an ecological point of view, it is necessary to persuade consumers to buy green products at high prices. Thus, various sources of information should be used to encourage their behavior towards green products (Chang, 2015). Family and peer groups also influenced consumers for the consumption of green products. Because the consumption and disposal of these commodities are not harmful to our environment (Lim Yong, & Suryadi, 2014). Another empirical study indicates that informational IPI significantly affects the intentions to buy green products among young consumers of Taiwan (Chang, 2015).

Numerous researchers for instance Cheah and Phau (2011); Kharem Parveen, and Mishra, (2012) reported that young consume attitude towards green products is being affected through IPI. Lee (2009) highlights the significant role of social impact on the behavior of consumers to purchase green products in a collectivist culture. Therefore, in the light of previous literature, the present study is designed to identify the predictors of GPB. The objective of the present study is to investigate the role of different psychographic variables on consumers' behavior towards green purchase. The psychographic variables include IPI, ALT, EK, EA and intention which affects buying behavior of green products among young adults in Pakistan.

H1a IPI will positively affect GPB of young consumers.

H1b ALT will positively affect GPB of young consumers.

H1c EK will positively affect GPB of young consumers.

H2a IPI will positively affect EA of young consumers.

H2b ALT will positively affect EA of young consumers.

H2c EK will positively affect EA of young consumers.

## Role of Demographic Variables

Various demographic variables affect the behavior towards green products, but in the present research, only a few demographic variables as shown in figure 1 will be explored to predict behavior of young consumers towards green products. Green purchases are also influenced by the culture of country (Pookolangara & Koesler, 2011). Demographics play an important role for the person to observe GPB (Makeower & Pike, 2009). Similarly, Roberts (1996) pointed out that age, income & education play an active role in green buying behavior. It is fitting to note here that inhabitants are bound to behave according to their surroundings which makes demographic factors very important while studying the GPBs. For example, the citizens of well-developed and financially stable United States of America would be more welcoming towards the induction of ecologically friendly products as compared to the residents of famine ridden Rwanda, an African country which has been marred by political instability and poverty. Environmentally conscious consumers are ready to pay high prices to buy ecological products (Laroche, Bergeron, & Forleo, 2001), if the manufacturers fulfil the expectancies of consumers regarding cost and benefit analysis by providing ecological packaging (Hartmann & Ibanez, 2006). The suppliers and exporters are under pressure to deliver eco-friendly packaging which influences the consumers to purchase (Sexena & Khandelwal, 2012).

Previous research findings indicate that age and education are positively related to eco-literacy among consumers having 14 years of education. The education increases the awareness regarding environment and intentions to strengthen the behavior to buy green products (Ansar, 2013). Therefore, it is hypothesized on the basis of previous literature that university students provide more valuable information for the execution of the research plan. Similarly, gender also affects the purchase behavior towards green products as females have more encouraging attitude to consumer green products. Males have been known to have higher degree of EK than females (Royne., et al 2016). In a research conducted in Malaysia by (Elham & Nabsiah, 2011) it was reported that females were likely to be more inclined towards green purchases as compared to males. Consequently, females are more vulnerable who easily persuade to buy green products than male counterparts. As the literature indicates that eco-friendly products are relatively expensive therefore, income level significantly affects the intentions towards GPB (Ngo, West, & Calkins, 2009).

H5a Gender affect the association between GPI and GPB of young consumers.

H5b Age affect the association between GPI and GPB of young consumers.

H5c Family's monthly income (in PKR) affect the association between GPI and GPB of young consumers.

H5d Occupation affect the association between GPI and GPB of young consumers.

# **Underpinning Theory**

## Theory of Planned Behavior

TPB is regarded to be very useful due to its great applicability in depicting human behavior in terms of environmental psychology (Yadav & Pathak (2017). This theory explains that intention is the precursor of individuals' behavior towards such products which are favorable for environment (Ajzen, 1991). Intention in marketing terms is regarded as the most reliable prophesier of an individual actual behavior (Paul, Modi & Patel, 2016). In order to predict purchase intention and behavior TPB uses three variables which are attitude, subjective norms, and perceived behavioral control (Ajzen, 1991). Ajzen (1991) reveals that attitude is the amount of a positive or negative evaluation of an individual regarding a particular behavior. The GPB is regarded to be significantly affected by attitude as a key role is played by attitude in determining the buying preferences of people (Tsen, Phang, Hassan & Bancha, 2006). Subjective norm on the other hand is regarded as the expected social pressure upon an individual for performing a particular behavior. In a research conducted in China it was reported that social norms played a key role in shaping up buyer's decision-making patterns (Chen & Deng, 2016). Therefore, if the inhabitants of a locality are well versed regarding the benefits of green purchases, there is a like hood that it would become a social norm over there and be widely accepted. The behavioral intentions are expected to be influenced by subjective norms (Nye & Hargreaves, 2010). Similarly, the perceived behavioral control is the ease or difficulty of performing a particular behavior. The perceived behavior control can enhance the possibility of green purchases by altering factors such as product cost, product availability, ease of product use. The confidence of the consumer required to complete a behavior is provided by the perceived behavioral control (Kraft, Rise, Sutton, & Roysamb, 2005). TPB banks upon the consumer attitudes towards the behavior instead of that of the product (Hansen, Jensen & Solgard, 2004). It is a robust model that has been applied to explain various topics of research in different fields. Yadav & Pathak (2017) reported in their research conducted in India that Theory of Planned Behavior completely endorsed that consumers intentions to buy green products led them to exhibit GPB. Similarly, Sakhawat (2019) reported that as the intention of an individual increases the behavior towards green products also increases. Therefore, intention an essential determinant of ones' behavior to consume that products which favorable for environmental wellbeing. But it is not consistently generalized due to different factors like financial and social factors (Peattie, 2011).

### **Hypothetical Model of Present Research**

The below mentioned figure shows the speculated model of present study. The predictors in this model are IPI, ALT, and EK which affects the outcome variable that

is GPB. This relationship is being mediated by path generated by EA and GPI. Furthermore, it is also hypothesized that demographic variables as mentioned in the figure given below moderated the effect of GPI and behavior among young consumers.

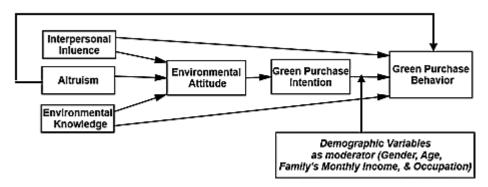


Fig 1. Conceptual Framework of Present Study

# Research & Methodology

#### **Instruments**

In present research, all the instruments are 5-point Likert scale to measure responses of the participants. The questionnaire booklet comprised of the following measures mentioned along with their total number of items:

- 1. EK Scale (6 items) (Ellen, Wiener, Cobb-Walgren, 1991; Suki, 2013)
- 2. EA Scale (6 items) (Lee, 2009)
- 3. IPI Scale (4 items) (Bearden, Netmyer, & Teel, 1989)
- 4. GPB Scale (7 items) (Lee, 2009)
- 5. GPI Scale (3 items) (Mei, Ling & Piew, 2012)
- 6. ALT Scale (3 items) (Schwartz, 1977)

Type of study	Descriptive
Research	Positivism philosophy
philosophy	
Research approach	Deductive approach
Research strategies	Survey strategy
Time horizon	Cross-sectional
Data collection	Questionnaires
Date type	Primary data
Data analysis	Descriptive, multiple regression and structural equational
	modeling

Population	University students
Sample size	384
Sampling	Non- probability convenience
technique	
Research tool	Structured close ended questionnaire
Measurement	05-point Likert scale.
Analysis source	SPSS-23, AMOS

This section explains the research designs and methodology which follow all the components of the research onion subsequently. Cross-sectional research along with survey strategy and deductive approach were implied in this study. SPSS-23 was used for data entry and statistical analyses.

# Sample

The targeted population was university students of Lahore, because it was assumed that educated young adults consume more ecological products and were reported to be more welcoming towards the introduction of a relatively new segment of green products. It was also widely believed that the exuberance of youth would incite the students to actively participate in the launching of new product segment in the market. Convenience sampling technique was used for the conduction of research study. The university students provided information as per their ease. Different universities of Lahore were the locale of present research. A total sample size that is 384 young consumers participated in the present research. The inclusion criteria were identified on the basis of previous literature. Only those young consumers were included in the present research who were enrolled in any university of Lahore.

#### **Results and Discussion**

Demographic characteristics		Percentage
Gender	Male	58
	Female	42
Age	18 years or below	13
	19-25 years	51
	25-30years	24
	30 years or above	12
Status	Single	55.7
	Married	44.3
Degree Enrolled	Under Graduate	46
	Post graduate	54

Occupation	Only Students	49
	Student & employed	51
Family Monthly	25000/Rs 0r less	12.3
income	25000/Rs -50000/RS	35.9
	Above 50000/Rs	51.3

Among the total (N=384) participants comprising of students in different universities of Lahore, the highest response rate recorded was 50.8% for the students in the age group of 19-25 years. A higher percentage of male students participated in the present research than females. Male students' participation was recorded to be 58.3%, whereas female students' participation was 41.7%. The findings indicate that the single participants outnumbered the married participants in the study. 55.7% of students were found to be single, whereas 44.3% were found to be married.

The study reveals that employed students are higher in number than the unemployed students. Therefore, employed students have 51% compared to only students having 49%. The findings pinpoint that majority of the student's family income is above 50000, it is followed with the family monthly income of 25000-50000 and 25000 or less is at the bottom of list. The respective percentages are 51.3%, 35.9% & 12.3% respectively. It is also observed that number postgraduate student participants are higher as compared to the undergraduate student participants. Furthermore, postgraduate students account for 54.2% whereas undergraduate students are 45.8%.

Cronbach Alpha values lie in the range of 0.71-0.88 which confirms to be in the acceptable range for the reliability values. As a result, it can be safely asserted that the raw data used for the analysis fulfills the conditions for the normality of data, hence parametric test would be further implied for further analysis in the study.

### **Discussion**

The present study envisages to assess the direct impact of psychographic variables consisting of IPI, ALT and EK over the GPB through the mediation of EA and GPI among university students of Lahore. In this regard, a model was suggested for gauging the direct relationship of psychographic variables on GPB. For optimum results, a sample size of (N=384) was selected and included students of both the undergraduate and graduate streams. The participant's response rate was calculated to be 86%. The research objective aims to address whether IPI, ALT and EK have an effect on GPB due to EA and GPI.

The descriptive analysis is reported in Table 1. It is indicated that all scales used namely EK, EA, IP, GPB, GPI & ALT are in the desired range of alpha reliability. There exists a similarity in the previous literature pertaining to the results reported in

the present research (Uddin & Khan, 2018). (Nguyen, Lobo, & Nguyen, 2017) conducted a study on young consumers purchasing behavior pertaining to ecologically friendly products was done in Vietnam. Similarly, a research done using EK and EA on the GPIs of Star bucks' customers in Indonesia presented positive alpha reliability score using the scales of EK, EA, GPI (Kusuma & Handayani, 2018). A recent research conducted in Malaysia using the scales EK, EA, ALT, IP, GPI & GPB presented the Alpha reliability scores in the accepted range as shown in the present research (Wang, Wong, Alagas, 2020).

The result findings of the present study revealed in Table 2 a significant positive co-relation among the variables EK, EA, IP, GPB, GPI & ALT. The results of the present work are supported by a previous research conducted in India (Uddin & Khan, 2018). Furthermore, the results of the hypothesis (1a-b-c, 2a-b-c) having direct relationship with the dependent variable are in conformance with previous literature (Wang, Wong, Alagas, 2020; Uddin & Khan, 2018)

The results depicted in Table 2 show that hypothesis 1a which states that IP has a direct impact on GPB conforming that IPI within persons which can be peer influence, word of mouth has a decisive impact on the buying behavior of consumers. The IPI can lead people to alter their buying patterns and purchase eco-friendly products. In this regard, previous literature has also endorsed the findings of the present study (Kumar, Saha, Sekar, & Dahiya, 2019; Bedard & Tolmie, 2018; Chang,2015). The results also signify that hypothesis 2a states that IP has a direct impact on EA. EA is the perception of environment in a person's mind. In order to develop the attitude regarding environment one is dependent upon the information he gathers from his friends, family and social circle. Therefore, it can be safely asserted that IPI plays a definite role in making up of EA within a person and more discussions a person has with his peers and social circle the more environmental favorable attitude he will have. In this context, previous literature also asserts the findings of the present study (Maki & Raimi, 2017; Akehurst et al., 2012; Tamueline, Kazlauskiene, & Pileliene, 2016)

The results of the correlation in Table 2 communicate that hypothesis 1b saying that ALT has a direct impact on GPB of an individual. ALT is a personality trait which makes the person selfless and is more concerned towards the betterment of others around him. People with altruistic motive are willing to selflessly give without caring for any benefit in the return. Pertaining to the context of this research it can be safely asserted that a person with altruistic personality trait will want to play his role in protecting the environment by changing his buying preferences towards green products. Previous studies also have also reported and are in conformance with the findings of the present research (Cameron, 2019; Panda., et al, 2020; Srivastava & Chawla, 2017). The results also report that ALT has a positive impact on EA

conforming hypothesis 2b. Due to the selfless nature of altruistic persons they are bound to have a favorable attitude towards environment. Previous studies have also confirmed the findings of the present study (Kim & Stepchenkova, 2020; Wang, Wong, Alagas, 2020)

The correlation results of Table 2 indicate that EK has a direct impact on GPB. The environment knowledge is the knowledge a person has related to the environment. A person who exhibits GPB will certainly be mindful regarding the environment. The EK compels him to buy environmentally friendly product. So, more the EK a person has more is the chance that he will buy green products. Recent researches in Bangladesh and India in this context are in line with the findings of the present work thereby conforming hypothesis 1c (Zahan, Chuanmin, Fayyaz, & Hafeez, 2020; Kumar & Muruganadam, 2020; Ali & Ahmad, 2016). The Table 2 correlation results further reveal that EK leads a person to have a favorable EA. The present study conforms to the findings of the previous literature implying that more the EK higher will be the EA and conforms the hypothesis 2c (Faize & Akhtar, 2020; Tiong., et al 2020)

The Table 3 show the results of the regression analysis. The influence of the independent variables is gauged upon the dependent variable. The findings of the results of the present study pinpoints EA to be the strongest influencer upon the GPB of the students. Previous researches have pointed out that by having a favorable attitude towards the environment it is evident that people exhibit GPB. The GPI is next to follow in terms of the influence upon GPB. These findings vindicate TPB by suggesting that EA tends to incite the GPI of the consumer which is ultimately translated into the GPB. The variables ALT, EK and IPI follow subsequently but according to the prediction analysis of the present work have a far lesser impact on GPB than EA and GPI.

The model testing was applied to test the hypothesis which influence the direct variable indirectly. The findings reveal that predictor included IPI, ALT and EK whereas EA and GPI were found to be mediators.

The structure equation model was used to analyze structural relationships. The model was used to explain the prediction for the GPB. The path 1 revealed that EA was the partial mediator between EK and GPI implying that the mediation was indirect. This implies that EA does not completely mediate the relationship between EK and GPI. Further, it was reported that EK predicted EA thereby implying that an increase in EK led to the higher degree of EA within an individual ultimately leading to a higher amount of GPB thereby conforming hypothesis 2c. The second path indicated partial mediation of green purchase mediation between EK and GPB signifying that the mediation was partial and not complete. However, it further revealed that EK directly

predicted GPI thereby implying that higher the EK more would be the GPI and it would lead to a higher degree of GPB thereby conforming hypothesis 3c.

The third path revealed that EA completely mediated between IPI and GPB thereby conforming hypothesis 3a ALT on EA which meant that an increase in ALT resulted in higher EA which resulted in a higher degree of GPB conforming hypothesis 2b. The fifth path indicated a partial mediation of GPI between ALT and GPB. However, ALT directly predicted GPI implying that a higher degree of ALT led to a higher amount of GPI which resulted in a higher amount of GPB conforming hypothesis 1b. Further, it was reported that IPI did not predict the relationship between GPI and GPB thereby hypothesis 1a was rejected.

The demographics was used as a moderator between GPI and GPB. Previous literature suggests that Gender has a significant impact on GPB (Chen, 2013). It was also reported in a recent research held in China that females had a higher degree of GPI which led them to showcase a higher amount of GPB (Wang, Wong, & Narayanan, 2020). But the findings of our work reported that male gender and GPI were found to significantly influence GPB. Therefore, males' students of universities in Lahore were found to have a higher degree of GPB as compared to their female counterparts.

### **Conclusion**

The present research was an attempt to gauge the effect of psychographic variables namely EK, ALT and IPI on GPB through the mediation of EA and GPI on the university students of Lahore. The findings revealed that the University students of Lahore had sufficient EK, were high on ALT and had a keen interest on showing GPB under the influence of EA and GPI. It was also observed that IPI did not have a decisive impact on diverting the student's attention towards green purchases.

The environmental deterioration has reached new highs. The last decade has been termed as the warmest decade ever. While, 2019 was the warmest year. Pakistan has had to face dire consequences due to environmental issues. The last decade has seen our Motherland hit with devastating floods, deforestation has led to gigantic landslides. Past few years have seen the city of Lahore covered with dense and toxic clouds of smog which poses serious health hazards to the inhabitants of the city. The primary focus of the present research was to explore the relatively unexplored area of green marketing in Pakistan and to study the effect of variables which led the university students of Lahore to alter their purchase behaviors towards green products. Lately, The World and Pakistan is battling with the deadly pandemic of COVID-19. The strict lockdowns imposed to check the spread of the deadly virus brought life to a standstill. All activities which released toxic gases into the atmosphere were stopped. As a result, the atmosphere had a much-needed breather. Ozone layer depletion was checked.

Probably for the first time clear blue skies were visible all over the world. But the scenario is likely to return amid the post lock-down and when life gets normal. Therefore, there needs to be an imposition of an environmental emergency in order to check the environmental deterioration.

# **Theoretical Implications**

The present work aims to add valuable literature to the existing body of knowledge of green marketing. The theoretical implications of the present work are to pinpoint that how EK, ALT and IPI affect the GPB of university students of Lahore through the mediation of EA and GPI.

# **Practical Implications**

We are currently standing at a very critical juncture; The continuously rising temperatures due to ozone layer depletion have changed the weather patterns. The summers are getting warmer and the winters are shrinking. Pakistan is among the main affectees of the changing climate patterns. The present Government is taking some serious step in this direction but still a combined effort is needed to control the undesirable effects of environmental degradation. The need of the hour is to promote such activities which do not become a cause of environmental pollution. Furthermore, the smog issue which has been a cause of great concern for people in Pakistan especially Lahore needs to be addressed on war footing bases due to the serious health hazard it poses. Therefore, serious brainstorming on the issue needs to be done. Almost everywhere in the world including our neighbors India are working on it. They are looking at alternative products or greener products which are manufactured using environmentally friendly material and are not harmful when degraded. The research on "going green" in Pakistan is in its early phase, although inputs have started to pour in but still a lot needs to be done.

By adopting green products, a new industry would come into being. The entrepreneurial spirits would be revived valuable employments would be generated. But before the adaption of green products the marketers and the manufacturers must know which segments to target. They need to know the buyer's preferences and expectations from the product. It has been reported in previous researches that young people are more welcoming towards new ideas and are keen to try out new products. Therefore, the present research would serve the purpose as it has targeted the relatively younger segment of the Pakistan society. Furthermore, being one of the most densely populated country of the world, Pakistan has a lot to offer in terms of a solid customer base comprising of young people. The city of Lahore being densely populated would serve the purpose for the launching of green products after knowing the factors which divert the purchase behavior of young customers.

## **Study Limitations**

The present research has the following study limitations which are expected from any scientific research.

- The present study has only collected data from the university students of Lahore due to shortage of time and limited resources. Future researches can take data from other cities of Pakistan to enhance the findings.
- The present work used cross-sectional design to study the effects of variables on GPB. Longitudinal design can be used in further studies to give a new dimension to the research.
- Young students reflected a significant EA. However, the future researches can take a larger sample which can include people of older age groups as well and carefully examine their EA.

### **Research Contributions**

Pakistan is under serious threat of the consequences of environmental degradation which include floods, smog and landslides. Therefore, it is in the best interest of Pakistan to mend their ways before things get out of control. In order to control the current situation, it is necessary to alter our consumption patterns and divert our purchases towards ecofriendly products. The present research would contribute towards providing the all-important information of market segments. Lahore being home to a significantly higher number of youngsters would make it easier for the manufacturers and marketers to decide what products to launch.

### **Future Research Directions**

The present research focused on students of undergraduate and graduate streams; future researches may choose sample from general population in order to improve the generalizability of results. Furthermore, the future researches can include other variables such as advertisements, price, perceived value in their research. The model presented in the present research can be further tested by theory of reasoned action.

Minhas & Furqan 17

### References

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.

- 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).
- Blackwell, R. D., Miniard, P. W. & Engel J. F. (2006). *Consumer Behavior*.10th edition. Mason: Thomson Higher Education.
- Carrete, L. (2012). Green consumer behavior in an emerging economy. *Journal of Consumer Marketing*.
- Chang, S. H. (2015). The influence of green viral communications on green purchase intentions: The mediating role of consumers' susceptibility to interpersonal influences. *Sustainability*, 7(5), 4829-4849.
- Chen, K., & Deng, T. (2016). Research on the green purchase intentions from the perspective of product knowledge. *Sustainability*, 8(9), 943.
- Chen, K., & Deng, T. (2016). Research on the green purchase intentions from the perspective of product knowledge. *Sustainability*, 8(9), 943.
- D'Souza, C., Taghian, M., & Khosla, R. (2007). Examination of environmental beliefs and its impact on the influence of price, quality and demographic characteristics with respect to green purchase intention. *Journal of Targeting, Measurement and Analysis for Marketing*, 15(2), 69–78.
- Faize, F. A., & Akhtar, M. (2020). Addressing environmental knowledge and environmental attitude in undergraduate students through scientific argumentation. *Journal of Cleaner Production*, 252, 119928.
- Fatah Uddin, S., & Khan, M. N. (2018). Young consumer's green purchasing behavior: Opportunities for green marketing. *Journal of Global Marketing*, 31(4), 270-281.
- Hashim, M., Baig, S. A., Abrar, M., Afzal, A., & Mohsin, M. (2019). Effects of Green Marketing on Green Purchase Intentions. *Dialogue* (1819-6462), 14(2).
- Haws, K. L., Winterich, K. P., & Naylor, R. W. (2014). Seeing the world through GREEN-tinted glasses: Green consumption values and responses to environmentally friendly products. *Journal of Consumer Psychology*, 24(3), 336-354.

- Jain, A., Darbari, J. D., Kaul, A., & Jha, P. C. (2020). Selection of a green marketing strategy using mcdm under fuzzy environment. In Soft Computing for Problem Solving (pp. 499-512). Springer, Singapore.
- Jaiswal, D., & Kant, R. (2018). Green purchasing behavior: A conceptual framework and empirical investigation of Indian consumers. *Journal of Retailing and Consumer Services*, 41, 60-69.
- Kaufmann, H. R., Panni, M. F. A. K., & Orphanidou, Y. (2012). Factors affecting nnframework. *Amfiteatru Economic Journal*, 14(31), 50-69.
- Khare, A., Parveen, C., & Mishra, A. (2012). Influence of normative and informative values on fashion clothing involvement of Indian women. *Journal of Customer Behaviour*, 11(1), 9-32.
- Ko, S. B., & Jin, B. (2017). Predictors of purchase intention toward green apparel products. *Journal of Fashion Marketing and Management: An International Journal*.
- Kusuma, P. N. P. D., & Handayani, R. B. (2018). The effect of environmental knowledge, green advertising and environmental attitude toward green purchase intention. *Russian Journal of Agricultural and Socio-Economic Sciences*, 78(6).
- Laroche, M., Bergeron, J., & Forleo, B. G. (2001) Targeting consumers who are willing to pay more for environmentally friendly products, *Journal of Consumer Marketing*, 18(6), 503-520
- Lim, W. M., Yong, J. L. S., & Suryadi, K. (2014). Consumers' perceived value and willingness to purchase organic food. *Journal of Global Marketing*, 27(5), 298–307.
- Liobikienė, G., Grincevičienė, Š., & Bernatonienė, J. (2017). Environmentally friendly behaviour and green purchase in Austria and Lithuania. *Journal of Cleaner Production*, 142, 3789-3797.
- Maniatis, P., (2015). Investigating factors influencing consumer decision-making while choosing green products. *Journal of Cleaner Production*, 1(2015), 1-14
- Ngo, A. T., West, G. E. & Calkins, P. H. (2009) 'Determinants of environmentally responsible behaviors for greenhouse gas reduction', *International Journal of Consumer Studies*, 33(2), 151–161.
- Nimse, P., Vijayan, A., Kumar, A., & Varadarajan, C. (2007). A review of green product databases. *Environmental Progress*, 26(2), 131-137.

Minhas & Furqan 19

Ok Park, J., & Sohn, S. H. (2018). The role of knowledge in forming attitudes and behavior toward green purchase. *Social Behavior and Personality: An International Journal*, 46(12), 1937-1953

- Panda et al. (2020). Social and environmental sustainability model on consumers' altruism, green purchase intention, green brand loyalty and evangelism. *Journal of Cleaner Production*, 243, 118575.
- Peattie, K. (2011). Developing and delivering social science research for sustainability. Researching sustainability: A guide to social science methods, practice and engagement, 17-33.
- Pookulangara, S., & Koesler, K. (2011). Cultural influence on consumers' usage of social networks and its' impact on online purchase intentions. *Journal of Retailing and Consumer Services*, 18(4), 348-354.
- Royne, M. B., Thieme, J., Levy, M., Oakley, J., & Alderson, L. (2016). From thinking green to buying green: Consumer motivation makes the difference. *Journal of Business Strategy*.
- Sakhawat, M. (2019). Sensory marketing in organic cosmetic industry of Pakistan: Viewing the mediating role of green attitude (Doctoral dissertation). Capital University.
- Sarumathi, S. (2014). "Green purchase behavior: A conceptual framework". *Global Journal of Finance and Management*, 6(8), 777-782.
- Sattar, S., & Younus, S. Impact of Green influences on Purchase intentions of Pakistani Consumers: Mediating role of Environmental Knowledge.
- Sharma, D. (2020). Impact of Green Marketing and Its Product to Make Batter Improvement in Environment. Impact of Green Marketing and Its Product to Make Batter Improvement in Environment.
- Tsen, C. H., Phang, G., Hasan, H., & Buncha, M. R. (2006). Going green: a study of consumers'willingness to pay for green products in kota kinabalu. *International Journal of Business and Society*, 7(2), 40
- Wang, H. Ma, B. & Bai, R. (2019). How does green product knowledge effectively promote green purchase intention? *Sustainability*, 11(4), 1193. <a href="https://doi.org/10.3390/su11041193">https://doi.org/10.3390/su11041193</a>
- Wang, L., Wong, P. P. W., & Alagas, E. N. (2020). Antecedents of green purchase behaviour: an examination of altruism and environmental knowledge. *International Journal of Culture, Tourism and Hospitality Research*.

- Wang, L., Wong, P. P., & Narayanan, E. A. (2020). The demographic impact of consumer green purchase intention toward green hotel selection in China. *Tourism and Hospitality Research*, 20(2), 210-222.
- Wu, P. C., Yeh, G. Y. Y., & Hsiao, C. R. (2011). The effect of store image and service quality on brand image and purchase intention for private label brands. *Australasian Marketing Journal*, 19(1), 30-39.
- Yadav, R., & Pathak, G. S. (2017). Determinants of consumers' green purchase behavior in a developing nation: Applying and extending the theory of planned behavior. *Ecological economics*, 134, 114-122.