

The power of consumer values: Assessing role of Price Sensitivity in driving Environmental values and Green Purchase Intentions

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Abstract

Using theory of planned behaviour as theoretical lens, we examine the importance of eco-friendly practices in line with concept of triple bottom-line. The rationale of the study is to examine the association between Environmental-values (EVs) and green purchase intentions with the role of a moderator construct i.e., price sensitivity. The study employed a multistage sampling procedure on the basis of regional divisions of KPK province with respect to number of districts and population size. The proposed connections were checked through structural equation modelling using Amos and SPSS. Results showed insignificant impact of environmental values on green purchase intentions. Moreover, with insignificant association of EVs and GPIs with no further processing was prevalent due to independent and dependent constructs falling in insignificant zones. The study concludes the importance of price sensitivity in less income groups and argues for due consideration for infusing pro-environmental laden values in target area of study price sensitivity biggest stumbling block in survival-oriented, poor and resource strapped markets. The study contributes to the body of knowledge in the field of environmental marketing and green consumerism in less developed areas of Pakistan. The study furthers debate on environmental value creation in light of theory of planned behaviour and anthropogenic pressures to create awareness regarding environmental value creation for attainment of people, planet and people dimension of triple bottom-line concept.

Keywords: Environmental values, Triple Bottom Line (TPL), Green purchase intentions (GPIs), Theory of Planned Behaviours (TPB), Anthropogenic pressures, Price sensitivity

Introduction

Consumer's desire to live in sustainable world is manifested in a gradual transition from harmonious existence to a desire to dominate the man-nature relationships. In the majority of emerging economies; in response to scarce resources the public are submissive to nature (Akbar, Ahmad, & Yousafzai, 2022). Our planet is in danger as a result of climate changes, litter, trash, botanical erosions, ecological catastrophes, with a host of other environmental problems (Akbar & Ahmad, 2022). According to Ali et al. (2021) affluent developed economies saw 56% tragedies with loss of 32 people due to anthropogenic pressures. However, emerging low-income context countries experienced 44% calamities with loss of 68% fatalities which shows greater vulnerability and less resilience to cope up with natural hazards. This

is mainly due to ineffective strategic choices on broader national level with respect to risk mitigation and preparedness as part of national agendas. Rapid expansion in world's population is directly proportionate to the demands of products tied to the excessive consumption habits when observed from environmental perspectives (Severo, de Guimarães, & Dorion, 2018). Sustainable consumption has become a buzz word in both oriental and occidental cultures especially in South East Asia based countries like Pakistan, China and India where consumers show ample concern for green sustainable consumption (Danish, Ali, Ahmad, & Zahid, 2019).

This is evident from the fact that sustainable developmental goals (SDGs) 12 out of 17 has places considerable significance on responsible consumption (Olabi et al., 2022). A recent survey shows that fifty percent of the population from nine industrialized economies acquired ecologically safe goods consistently, wherein, twenty five percent consumers were observed willing to pay a premium price for green products (C.-C. Chen, Chen, & Tung, 2018). Considerable research has been carried out in the context of sustainable values and green consumerism in developed world. Still, the role of price sensitivity as moderator was barely researched with environmental-values and green purchase intentions in emerging economies especially within rural areas of less developed nature. Biswas and Roy (2015) explored the relationship of altruistic, egoistic and bio-spheric values, and the findings showed a positive association of these values with sustainable consumption. The concept of value derives our attention to three stages of production, circulation and consumption. Economists study value and sociologists study values and Isreal Krizner views value as a "Subjective dynamic capability which changes in time and space (Tariq, 2018) The egoistic values refers to human internal wishes to satisfy his/her thirst, which were revealed in contrast with ecological values (Park, Kwon, & Kim, 2021). In light of the forgoing debate, it is obvious that eco-values need ample consideration from a research point of view to understand the sustainable consumption patterns of production, circulation and consumers consumption.

Consumers' sensitivity towards the pricing of green products and rational behind their value systems can help in analyzing the synergic efforts of business ventures in targeting and positioning their offerings which maintains sustainable operations (Nawaz, Yousafzai, Shah, Xin, & Ahmad, 2021). Ghali-Zinoubi (2020) declared price as a yardstick in making strategic choices about ecologically safe products with consideration of price as a psychologically dissonant reducing factor as green products are mostly upscale in terms of pricing. Sensitivity towards ecologically sound products such as recycled stuff has a direct connection with transparencies of pricing strategies in terms of values provisions to surroundings (Yousafzai, Nawaz, Xin, Tsai, & Lee, 2020). According to the study conducted by Erdil (2018); price sensitive consumers paid no heed to adopt sustainable consumptions. The theory of planned behavior (TPB) initially coined by Fishbein and Ajzen (2011) was used as base in predicting the hypothesized relationships between constructs of the study, ecologically sustainable values and price comparisons of green vs. non-green products. The theory of Planned Behavior delineates human intentions as final product of their attitude backed by subjective norms and perceived behavioral control which stimulates them to make final purchase (Moon, 2021).

Current studies illuminates the many aspects driving green purchase behavior as environmentally concerned researchers do so while not understanding the rational values framework that underlies their thinking (Kumar & Mohan, 2021). Existing research has taken more concern for human personal values in connection to mind (where values resides) with actual purchase decisions regarding green products. Despite, the fashionable use of eco-friendly values, hitherto, none of the researchers investigated the impact of environmental values on green purchase intentions in less developed area of a less developed nation of Pakistan. Additionally, prior research has paid scant attention and found little correlation between price sensitivity and green values and green purchase intent. In order to better comprehend human values in relation to bio spheric buying intentions, the study aims to add to the body of literature by analyzing the motivations underlying human cognitive thought processes to better understand associated dynamics. The purpose of the study is to investigate how price sensitivity affects the relationship between environmental values and plans to make green purchases in the context of a poor and resource strapped environment of Pakistan. This is achieved by assessing the impact of

environmental values as a predictor variable on consumers' intentions to make green purchases as a criterion variable, with price sensitivity deemed as a moderating factor in this study.

Conceptual Framework of Study

Green Purchase Intentions

Green purchase intentions (GPI) refers to the consumer's innate drive for acquisition of organic practice of purchase that are considered as ecologically safe (Shaikh & Hyder, 2023). Green purchase intention is termed as human desire to patronize ecologically safe products in comparison with traditionally positioned offerings of firms (W. Ahmad & Zhang, 2020). According to MT Yousafzai, (2017) positioning is a game that marketers play with minds of customers whether it be for their products, services and even educational services. Exerting energies in acquiring green products refers to green purchase intentions. It is a systematic procedure that stems from consumer values, attitudes and norms that can be categorized into a cognitive framework of consumer minds (Akbar, Rafiq, Hussain, & Perveen, 2022). Green purchase intentions indicates a significant desire for environmentally sustainable items; in addition to general health of the community and the environment (Akbar, Mordhah, Takreem, & Dr, 2023). As stated by Akbar, Mordhah, and Rafiq (2021) contends that consumers who are conscious about their environment relies on their eco-values related cognitive mechanism that drives them to purchase of green products. (Drost, 2011). Stelick, Sogari, Rodolfi, Dando, and Paciulli (2021) contends that customers who are willing to upscale prices for pro-environment offerings are considered as responsible citizens, which is deemed as a new trend in healthy life styles as the climate change psychological distance has reduced recently as evident from a variety of environment changes cascaded by anthropogenic pressures (Yousafzai et al, 2022). Thus, GPIs can be viewed as a mechanism to improve the environmental factors as well as boost consumer self-esteem by entailing a responsible approach to utility-oriented consumption (Akbar, Zeb, & Ahmad, 2017).

In light of the exhaustion of earth's population carrying capacity and resources, prior researchers have advocated for the employment of a frameworks based on sustainable production, circulation and consumption oriented marketing approaches (Alareqe, Roslan, Taresh, & Nordin, 2021; Neelam Akbar, 2023). In concordance with the preceding research in the realms of green marketing; the trend of shifting from traditional to bio-spheric consumption, circulation and production related practices have become imperative in contemporary era (Y. A. Wang & Rhemtulla, 2021). Ziegler (2021) showed that ecologically inclined propensity to GPIs and green marketing hinges upon customers priority value system to acquire green products and services. Little work has been carried out generally in countries survival issues due to food scarcity in especially in developing countries with respect to sustainable consumption and production practices due to their resource strapped nature (Suki & Suki, 2019). This may be due to low per unit consumption levels but the overall population is a factor of concern especially when food and necessities are taken into consideration. Previous work in the field of green marketing indicate close ties of purchase intentions with green marketing, which suggests that purchase intentions paves the way for consumers in making rational choices in acquisitions, use and disposal of sustainable offerings (Chekima, Syed Khalid Wafa, Igau, Chekima, & Sondoh, 2016). Thus, keeping in mind the perception of sustainability as a source of competitive advantage for the long-term survival of business, this study aims to consider the GPIs from both a consumption and production perspective.

Environmental Values

Environmental values depicts the consumer's sense of responsibility towards nature preservation by adopting pro-ecologically accepted consumption heuristics (Kang & Moreno, 2020). Environmentally bounded values, describes the consumer's perceptual defense mechanism to act in consonance with the rules of green consumption; the confluence between consumers and environment values open up new

avenues for marketers in order to satisfy customer needs in a responsible manner (Chwialkowska, Bhatti, & Glowik, 2020). Values reflects the supremacy of a set of quantitative and affective norms, attitudes and belief system (Shoukat, Baig, Batool Hussain, Rehman, & Shakir, 2021). Values specific to ecology depicts the state of consciousness that impacts a person's general view of the surroundings by expressing their tendencies to adopt pro-environmental behaviors of consumption (Akbar, Yousafzai, & Akbar, 2023; Kang & Moreno, 2020). Values aid in final purchase decisions and their examination does not work alone but is intertwined with the a composite of factors that triggers consumer values system for pro-environmental behaviors (Landon, Woosnam, & Boley, 2018). In addition; Zeb, Akbar, and Ahmad (2016) revealed that values are stable notions that stimulate consumer to act in a particular way; they are regarded as logical abstractions which helps in structuring and influencing humans.

Bio-spheric values have three categories namely altruistic, egoistic, and bio-sphere values (Park et al., 2021). Altruistic values describe the moral obligations towards environment; egoistic values stem from consumers innate motives that motivate them to achieve the power for accomplishment desires. The third type is the bio-sphere values which is revealed in consumer behavior; their concerns and regard to the environmental issues in regards to purchase decisions (Kim & Kim, 2018). Within the values-belief-norm theoretical perspective, values may be regarded as a coherent framework with respect to the environment (Stern, Dietz, & Kalof, 1993). Prior researchers have utilized the value-believes- norms paradigm as a foundation to explain the connection between belief systems which can help in prediction of consumer behavior. (M. F. Chen, 2015; Liobikienė & Juknys, 2016). Values describe the individuals views of the reality using a host of ecological, altruist, and egoist values mechanism as discussed in detail in concept of triple bottom-line. (Kang & Moreno, 2020). There has been considerable research on values for personal interests embedded with values for other economic, social, behavioral school of thoughts. But there still dire need for more research on consumer values attached to environmental concerns i.e. value for oneself and value for others (Tariq, 2018). In the light of the preceding literature review by way of situating related constructs in prior state-of-the-art, we formulate the following hypothesis:

H1: Environmental values are positively related to GPIs (Green purchase intentions).

Price Sensitivity

It goes without saying that price sensitivity reflects variations in consumer behavior with respect to changes in the prices of specific products and services. According to Joshi and Rahman (2015), rising prices worldwide have widened the attitudinal gap in consumerism by associating price ceilings impacting customers moral concerns and standards. Mohd Suki (2016) investigated the price sensitivity relationship with environmentally friendly items; findings state that price sensitive consumers are less inclined towards green products and services due to their minimal purchasing power. Zhang et al. (2018) carried out a study on the impact of price premium of organic vegetables on GPIs in the Chinese market which revealed a significant negative impact of price fluctuation on green purchase intentions. Consumers response to price sensitivity varies with their interests to environmental problems (Yue, Sheng, She, & Xu, 2020). Consumer sensitivity towards price variations is comparatively high for hedonic products as compared to functional use of products (Akbar, Rafiq, Uddin, & Bilal, 2021). Thus, the previous studies on the significance of price sensitivity in the field of sustainable consumption and production revealed its strong connection with bio-spheric concerns of consumers in green field.

Socioeconomic status and sound financial position are impacted by price sensitivity; with elite income groups found to be less sensitive to price variations of commodities and services. Congruence between brand characteristics and consumer's personal traits plays a crucial role in consumer purchase intentions (Akbar, Rafiq, Takrim, Tauqeer, & Sajjad, 2023). Synchronization of consumer perceptual

thinking process with responsible consumption behaviors aids in acquisition of green products and services. Personality attributes that support the sustainable consumption practices are more inclined towards ecologically safe market offerings in the presence of higher awareness levels (Hahnel, Ortmann, Korcaj, & Spada, 2014). Akbar, Mordhah, et al. (2021) assessed that an individual perceived variations depends on their level of price sensitivity about sustainable products and services. Thus, price depicts the forces that are employed by consumers in green product analysis and selection processes. Less price sensitive consumers put a lot of focus on societal contributions to the environment by exhibiting pro-environmental behavior (J. Wang, Pham, & Dang, 2020). Thus, preceding arguments assert the immense importance of price sensitivity with reference to consumption in reference to ecological values system which drives or diminish consumer response towards purchase of green products. On the basis of prior discussion the second hypothesis is devised.

H2: PS serve as significant moderator between EV and GPI

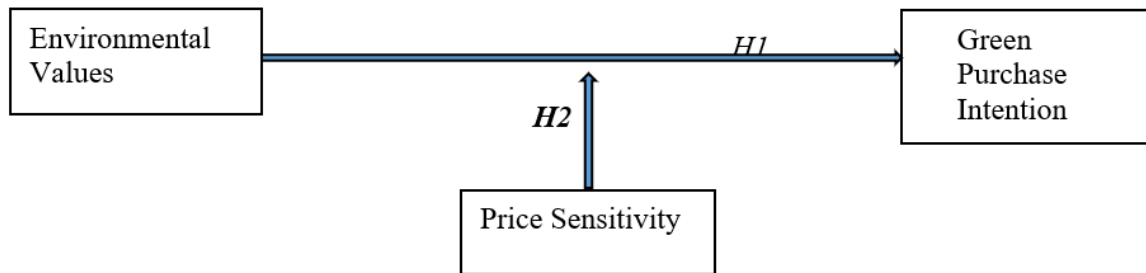


Figure 1. Theoretical framework showing the situated H1 and H2 hypothesis

Methodology

The current research is quantitative in nature with positivist philosophical worldview in which the data was gathered via structured questionnaire that was based on prior research studies and adapted to serve needs of target market of the study. The causal association between E-Values and GPI was examined with the role of price sensitivity as moderating variable; the items covering EV were taken and amended from prior study carried out by Bhatia and Jain (2013). The items covering (GPIs) green purchase intention was adapted from the prior work done by Ko, Hwang, and Kim (2013), the questions that covered price sensitivity was adapted from the study carried out by Tan, Ojo, and Thurasamy (2019). The current research focused on youngsters studying universities that takes active part in pro-environmental campaigns through green growth initiatives undertaken in HEIs from time to time. The study data was collected through multistage sampling approach in Khyber-Pakhtunkhwa (KPK) province of Pakistan. KPK is the composite of 35 districts and 7 divisions (Akhtar, Khalid, & Khan, 2020). According to Iqbal et al, (2018) naivete from research ethics is by itself unethical approach. Hence, proper approval for the conduct of study was secured concerned institution as the principal investigator PhD studies as well as informed consent and data confidentiality ensured. Moreover, the pseudonyms were given to respondents in order to preserve privacy. The study site is shown in figure 2 of the study.

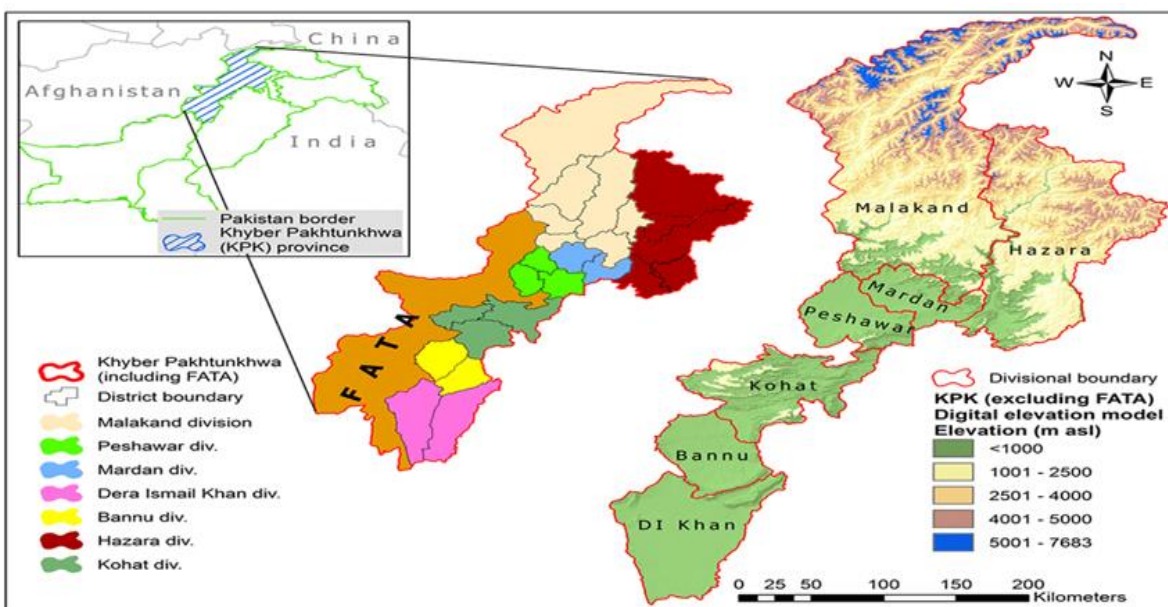


Figure 2 Study Site Study Sites in KPK
 Source (K. Ahmad, Weckerle, & Nazir, 2019)

Sampling Technique

The data was gathered through a multistage sampling approach in which a sample was initially drawn from groups through different phases and stages. In first stage, the KPK province was classified into three regions, northern, southern, and central. As reported by Hayat et al. (2022) the northern region has ten districts with 35% of KPK population; the southern region has 7 districts with 20% population; the central part carries 7 districts comprising of 45% population of KPK. The next stage of multistage sampling we selected two districts from central and southern regions; three from northern regions. In the third phase, we started from selection of universities in which two universities were chosen from central and northern regions and one university from southern region in terms of population density and number of universities. The sample adequacy was measured by employing Kaiser-Meyer-Olkin and Bartlett's test of Sphericity; that gives the appropriateness of data in the context of factor analysis (Pallant, 2010). The sample adequacy for minimum acceptable criteria was ascertained as 0.06 and above; the value above 0.06 gives much finer results for factor analysis (Huck, 2012). A sample size of 200 is marked as adequate for assessing the data. However, 300 and above yield supreme level of findings for factor analysis (Holden & Lynch, 2004). According to the study of Field (2005); 300 sample is termed as superior criteria for factor analysis. In view of preceding evidence from previous researchers; the current research undertakes 320 sample that can better assist to figure out the structured bond between variables of the study. The KMO measure for sample adequacy value is found as 0.965 with 3570.544 and 36 DF and significance value of 0.000.

Results

Descriptive Statistics

Demographic characteristics on the basis of gender presented 55% female respondents with frequency of 176 and 45% male participants with frequency of 144. Demographic characteristics based on age were categorized into three main classes. 21 and below presented 34% of the 112 participants. The age range between 21 and 35 presented 38% with frequency of 121. Moreover, the age range of 35 and 45 revealed 27% with frequency of 87. Participants on the basis of education were classified into four categories. The Bachelors level presented 33% of total population with frequency of 106 and Masters students represented 37% of the respondents 118, the MS level students showed 20% of the

population with frequency of 64. PhD level students presented only 10% of total population with a frequency of 32. The Pearson correlation values for 2-tailed tests yielded 0.881**for the connection between environmental values and GPIs. A 0.790** value showed correlation between price sensitivity and green purchase intentions. The correlation between environmental values and GPIs was determined as 0.803**. The correlation values depicted strong correlation between constructs of the study. The Cronbach Alpha test was carried out to find the internal consistency between variables of the study. The Cronbach alpha values of EV were ascertained as 0.952; PS =0.923; GPI = 0.953. Thus, the preceding internal consistency values exhibits moderate to high level of reliabilities as suggested by Brown (2002), the threshold value for internal consistency is 0.7 or above. Furthermore, the standard loadings of the items were above 0.50 reported in structured model as shown in figure 3 of the study. The standard loadings of questions explaining environmental values as shown below were for 0.75, 0.83, 0.84, 0.85, and 0.83 for EValues1, EValues2, EValues3, EValues4 and EValues5 respectively. The standard loadings of the questions describing the green purchase intentions were found as 0.83, 0.85, 0.88, 0.87, 0.86 for GPIIntentions1, GPIIntentions2, GPIIntentions3, GPIIntentions4, and GPIIntentions5 respectively. The structured model was determined as reasonably good fit as all the values were within acceptable thresholds level; the values of χ^2 / DF was found as 2.71; CFI=0.93, AGFI=0.89, TLI=0.94, SRMR=0.02, RMSEA=0.05, and PCLOSE= 0.07.

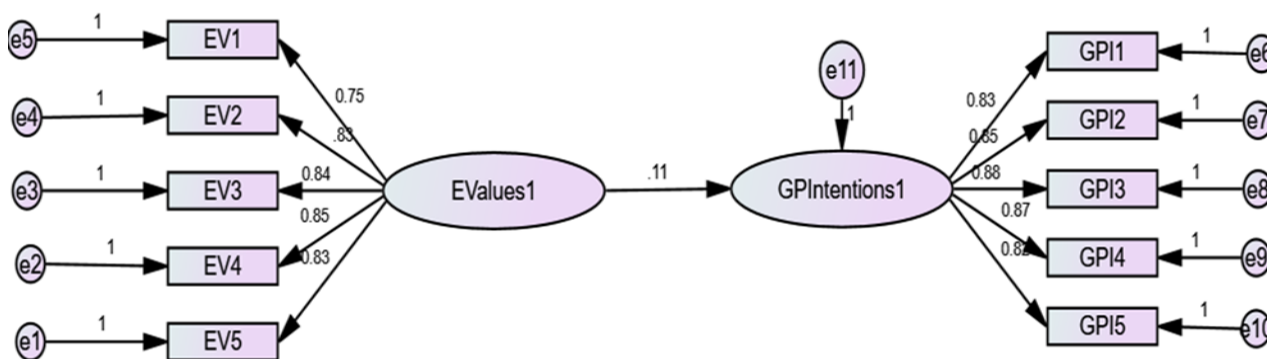


FIGURE # 3 STRUCTURAL RELATIONSHIP BETWEEN ENVIRONMENTAL VALUES AND GREEN PURCHASE INTNETIONS

Structured equation modelling results for hypothesis HI of the study revealed 0.11 standardized beta coefficient with a *p*-value 0.165 and critical ration of 1.46 indicated insignificant relationship between environmental values and green purchase intentions which leads us to reject the first hypothesis of the study. The statistical test of the first hypothesis revealed insignificant output which does not allow for further processing of moderation role of price sensitivity in current study. Moderation rules stems from the notion of significant association between the independent and dependent variables of the study. However, the relationship between environmental values and green purchase intention is not significant; hence, price sensitivity as moderator cannot be confirmed for further processing.

TABLE 1 HYPOTHESIS TESTING

Predictor	Standardized Estimates	β	SE	CR	P-Value
X(Environmental Values)	.11	.097	.660	1.469	.165

Notes: N= 320; bootstrap sample size =2000. DV= Green Purchase Intention

Results of the current research leads to rejection of the main hypothesis of the study that were based on the proposed connection between environmental values and green purchase intentions. The findings goes in congruity with the similar nature study conducted by Ma, Rau, and Guo (2018) in Chinese cosmetics and beauty sector where societal values were insignificantly associated with green purchase intentions (GPI). However, the findings of current study were found as contradictory with prior research conducted by Y. S. Chen and Chang (2012) which revealed significant and close ties between ecologically embedded values and green purchase intentions. The connection between EV and GPI was insignificant. Therefore, price sensitivity as interaction moderation does not allow for further processing.

Discussion

The current research is quantitative in nature conducted from positivistic perspective; the data was gathered through a structured survey instrument adapted from previous research from university students via multistage sampling technique. The data was processed through AMOS 23 software. However, the descriptive analysis of demographic questions was tested through SPSS 23 version. Structured equation modelling was utilised for checking the structural bonding between EV and GPI with role of PS as moderator. Furthermore, confirmatory factor analysis was used for testing the model fitness of structured model. The findings do not support the first hypothesis of the study as the p-value was found as 0.165 which is above significance threshold level. Following the interaction moderation rules; the price sensitivity cannot be inserted as moderator as the relationship between predictor and criterion variable is insignificant. The direct relationship between EV and GPI is insignificant; that does not allow for regressing the role of moderator.

The findings of the current research shows consistency with prior work done by Mae et al. (2018) where values were insignificantly related with environmental purchase intentions in the context of advance technologically developed countries. In another study carried out by Shiel, Leal Filho, do Paço, and Brandli (2016) the ecologically green consumption values were proved to be significantly related with environmental resources for a study conducted in UK, Germany, Brazil and Portugal. Contrary to the findings of current research Liao, Wu, and Pham (2020) revealed a positive link between green values and green purchase intentions in Cambodia with a survey of 319 consumers. Similarly, de Medeiros, Ribeiro, and Cortimiglia (2016) in Brazil identified and found ecological values as strong predictors of consumer purchase intentions (GPIs). The findings of current study revealed that environmental values have insignificant connection the purchase intentions of consumers in the target area of this study and preceding studies discussed herewith shows variations across occidental oriented and oriental cultures, regions and sub regions.

Conclusions

The current study focused on examining the influence of EV on GPI with the role PS as moderating variable. Results revealed that EV shows weak association with GPI in KPK province of Pakistan. The findings entail that customers in KPK region have little or no concern regarding environmental values and nature preservation through use of pro-ecological products and services. The moderator role of PS does not allow for checking its role as the direct link between the independent and dependent variable were found to be insignificant. The future research ought to expand the research setting to encompass other provinces and districts of Pakistan in order to offer an exhaustive investigation of environmental values connection with green consumerism needed for inducing pro-environmental behaviours. Longitudinal studies will help in understanding the connection of values-belief- behaviour system in regards to price sensitivity and GPIs with special focus on adoption of green consumption values. Governments should boost the implementation of green growth initiative-oriented strategies for the prosperity of coming generations as more and more anthropogenic pressures are exerted. The study

contributes to the literature of green consumer behaviour by improving the academics' understating of the distinctive significance of consumer's environmental values and GPIs in the poorest and resource strapped areas of less developed countries like Pakistan.

The findings of the study can stimulate marketers and brand managers to position their ecological offerings with major focus on embarking their value-belief system in regards to price sensitivity. The study recommends policy makers to create awareness about sustainable consumption in order to create a synergistic impact of environmental values on green products purchase in order to complement the efforts of Global governance bodies in achieving SDGs and to actualize the agenda 2030 as agreed upon by participation nations including Pakistan which was one of the first mover to sign it in 2015. The green growth initiatives and environmental campaigns in youth will develop a fair chance to embed the green consumption as a supreme part of their values system. Managerial implications of the study provide assistance in setting corporate plans with special reference to price mechanism in accordance with the consumer values-system in order to provide better services amidst the price sensitive nature of the marketing in Pakistan.

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