Available online at http://cusitjournals.com/index.php/CURJ (e-ISSN:2409-0441)

(ISSN-P: 2220-9174)



CITY UNIVERSITY RESEARCH JOURNAL Vol (12), No. (1), March, 2022

## EXAMINING THE IMPACT OF ENVIRONMENTAL-BELIEFS ON GREEN PURCHASE INTENTIONS VIA PRICE SENSITIVITY AS MODERATOR

Ms. Neelam Akbar Marwat

Lecturer, Centre for Management and Commerce University of Swat PhD Scholar, University of Malakand Email. NImakber@yahoo.com **Dr. Shabbir Ahmad** Department of Management Studies, University of Malakand, Chakdara, Dir Lower, Pakistan. Email:shabirhi@yahoo.com **Dr. Muhammad Tariq Yousafzai**, Assistant professor. Centre for Management and Commerce University of Swat. muhammadtariq@uswat.edu.pk

manannaaangeaow

#### ABSTRACT

Based on the theory of planned behavior this research investigates the role of ecological belief system on green purchase intentions with role of price sensitivity as moderator. Deviations in consumer behavior regarding green consumption patterns is the key issue for marketers in understating the unseen motives behind the green purchase intentions of their target market. An adapted questionnaire with closed ended questions were distributed via multi-stage sampling technique in Khyber Pakhtunkhwa, Pakistan. Findings from Amos software using structural equation modeling suggested strong impact of environmental beliefs on green purchase intentions. Further, price sensitivity moderates the relationship between environmental beliefs and green purchase intentions. This study contributes to the literature by initiating a proposed model that helps in alleviating the disparity between consumer intended and actual purchase behavior through environmental beliefs and green purchase intentions with price variations of green products.

Keywords: Environmental beliefs. Green purchase intentions. Price sensitivity.

# INTRODUCTION

The key challenge for humanity in new century is to search for more sustainable, justifiable and maintainable ways to harvest, produce, devour and live (In, 2017). Optimisation of output is the key to success around the globe which drive business setups to adopt greener strategies for gaining long term edge over competitors to meet international standards of sustainability (Belmonte-Ureña, Plaza-Úbeda, Vazquez-Brust, & Yakovleva, 2021). Taber (2018) described the concept of green consumption and sustainability as phenomenon which is aggressively adopted by global firms in tapping the market needs. Global competition and increased governmental regulations drive businesses to move towards adopting green products that are marked as ecologically safe (Witek & Kuźniar, 2021). Business ventures face difficulties in predicting the consumer's behaviour with respect to green consumption practices.

Consumer's response to green products varies which possess threats to targeting and segmentation strategies of the firm (Chang, Chen, Yeh, & Li, 2021). Marketers cannot predict the consumer's response with exact degree of accuracy in positioning their green products to the target market (Zaremohzzabieh, Ismail, Ahrari, & Samah, 2021). This presumably has caused drop in the market share of green products in developing countries.

Marketing managers employ information regarding purchase intentions in designing strategic marketing decisions. Yet, the manifestation from experiential investigation regarding the connection between consumers' stated and actual intentions is blurred (Majeed, Ahmed, & Rasheed, 2021). Previous research in exploring the gap between consumer green purchase intentions has fallen short. This research seeks to solve these problems. The challenging issue lies in deeply rationalizing the key characteristics of consumer behaviour. Other problems associated with green products sale is tied with failure in strategic considerations of businesses regarding charging overly premium pricing of green products (Wijekoon & Sabri, 2021). This research investigates the consumer green purchase intentions with reference to theory of planned behaviour which provides logically sound base in predicting the consumer's beliefs system and its connection with green consumerism. Assessment of consumers profile with respect to green purchase intentions can help businesses in anticipating their reactions to green products (Cheung & To, 2019). The existing research examines the role of price sensitivity as moderator in relationship between eco-belief system and green purchase intentions. Price sensitivity creates harmony between profit and sustainable practices of the business ventures that serves as competitive yardstick for brand and marketing managers in designing, building, implementing and maintaining the green marketing strategies (Millner & Ollivier, 2020). It can assist manufacturing sectors in adaptation of green policies regarding packaging and labeling of green products. In the light of preceding discussion is assessed that understanding consumer's belief system towards variations in price is key to predict their actions towards environmental stimulus in purchase decisions.

The main aim of the research is to identify the impact of environmental beliefs on green purchase intentions with role of price sensitivity as moderator. Gap in the field of green marketing is identified between consumers green purchase knowledge, preferences and actual purchase decisions. Prior studies have investigated the role of green marketing concept with the composite of variables in diverse circumstances. Obilor and Amadi (2018) studied the relationship between eco-labeling, eco-branding and environmental advertisements with overall organizational performance which were found to have drastic impact on each other. Marvi, Minbashrazgah, Zarei, and Baghini (2020) carried out the systematic overview to explore the importance of green purchase intentions, its contributions along with its scope in coming future in the field of green consumptions, the rationale behind this research was to explain the emergence of green buying intentions along with the type of transformation and amendments it faced through evolutionary stages. Ziegler (2021) explored the purchase intentions equipped with green marketing that is fixed with consumers preferences to adopt eco-friendly products and services. Gap is identified between consumer's eco-belief system and their actual behavior which needs to be addressed because of gaining global competitive advantage in terms of tapping the green target market needs (Millner & Ollivier, 2020).

The purpose of this research is to assess the association between environmental beliefs and green purchase intentions with role of price sensitivity as moderator. Prior researches have ignored the role of price sensitivity that has profound impact on consumer's beliefs towards green purchase intentions. The existing research examines the role of price sensitivity as moderator in relationship between eco-belief system and green purchase intentions. Price sensitivity creates harmony between profit and sustainable practices of the business ventures that serves as competitive yardstick for brand and marketing managers in designing, building, implementing and maintaining the green marketing strategies (Millner & Ollivier, 2020). The current research can assist manufacturing sectors in adaptation of green policies regarding packaging and labeling of green products that addresses the gap in the literature by investigating the role of price sensitivity as moderator. The current study is an attempt to contribute to the literature by exploring the motives behind consumer ecological thinking and perception. The study will help in

understanding human nature in connection with biospheres preservation which will help firms in adopting greener strategies.

Consumers in effect shows greater concern for green products but practically they are not buying the green products which paved the way to explore the unseen personality aspects that helps in understating the consumer behavior regarding green marketing (Wijekoon & Sabri, 2021). Digging out the consumer's black box (mind) and their responses to environmental stimuli arises the need for studying the individual belief system that can exert considerable impact on green purchase intentions of customers (Majeed et al., 2021). The current research contributes to the literature of consumer belief system regarding sustainability spheres of business ventures that can widen the scope of environmental marketing and consumer psychology regarding safe environmental practices.

#### LITERATURE REVIEW

The current literature is based on reviews from multidisciplinary spheres ranging from sociology, education, psychology and marketing followed by business and management fields. The rational of the literature review section lies in identification of previous researchers' main goal and theme with reference to the central theoretical approaches with its immediate application (Elsbach & van Knippenberg, 2020).

#### 2.1 Green Purchase Intention

Green consumption is described with social relevancy because of expeditious escalation of environmental hazards, sustainability provocations and high level of consumer awareness about environmental stagnations (Kautish, Paul, & Sharma, 2019). It can be explained as phenomenon in which individual prefers goods and services with lower ecological influence. In response to depletion of natural resources most research studies recommended the use of models which rests on the use eco-friendly technology to manufacturing concerns of the businesses (Alareqe, Roslan, Taresh, & Nordin, 2021). It becomes obvious from previous research studies that the tendency to transform from conventional to sustainable consumption is becoming a global phenomenon (Y. A. Wang & Rhemtulla, 2021). Thus, it is interpreted that the sole responsibility of converting consumers attitude from traditional ways of consumption to green ways of living life rests upon marketers and brand managers of the firm because they can devise and design strategies that helps in altering their perception regarding the long term benefits of adopting sustainable practices (Chou, Horng, Liu, & Lin, 2020).

#### 2.1.1 Theoretical Background of Green Purchase Intentions

Green purchase intentions and actual green purchase behavior are used in research simultaneously. The most authentic and comprehensive theory that explains the green purchase intentions is Theory of planned behavior (TPB) which is developed by (Fishbein, Jaccard, Davidson, Ajzen, & Loken, 1980). Theory of Planned behavior explains that behavioral intention of consumer is the final outcome of their attitude, subjective norms and perceived behavioral control, they all collectively explain the consumers buying intentions. TPB is extensively connected by previous researchers for predicting the green purchase behavior and behavioral intentions which describes and shows the tendency of individual to engage in particular behavior (Rausch & Kopplin, 2021). Consumers are following sustainable practices in purchase decisions by acquiring and using those products that are less dangerous for surroundings (Munerah, Koay, & Thambiah, 2021). Shukla, Dipen, Malik, and Mishra (2021) revealed that green purchase intention is willingness of individual to prefer eco-friendly products over conventional products. It is characterized as internal drive to buy environmentally friendly products. In connection with preceding discussions it is assumed that purchase intention leads to green purchase intentions when consumers believes that their efforts to use and dispose of eco-friendly products have positive impact on society well-being (Shabbir, Bait Ali Sulaiman, Hasan Al-Kumaim, Mahmood, & Abbas, 2020).

### 2.2 Environmental Belief

Belief is a faith and confidence about existence of reality which that specific behavior of individual that yields meaningful resultant output and can be classified as behavioral, normative and control beliefs (Maarouf, 2019). Environmental belief is a construct which helps to explain the individual behavior who impartially, altruistically and peacefully trying to take precautionary measures and consciously looking for solutions to environmental problems (Webster, Morrone, & Saucier, 2021). Human beings consciously seek compatibility with their beliefs system and incompatibility between information and environmental beliefs in any form leads to resistance from accepting the importance of environmental degradation as a serving route to mental consistency (Braga Junior, Martínez Marta, Correa Caroline, Moura-Leite Rosamaria, & Da Silva, 2019). Environmental beliefs refers to individual subjective knowledge which stems from their experiences and feelings (Groening, Sarkis, & Zhu, 2018). Environmental beliefs act as stimulating drives that encourage and motivate individual about eco-system to consciously adopt environmentally sustainable practices (Liobikienė & Poškus, 2019). Consumers on the continuum of having strong environmental beliefs tends to be more inclined towards the environment and shows greater concern towards taking responsibility to adopt green consumption practices (Inkpen & Baily, 2020).

#### 2.2.1 Theoretical Background Explaining Environmental Beliefs

Groening et al. (2018) explained Stern's Value Belief Norm (VBN) theory in connection with environment, consumers norms are activated from their believes which explains that breaking the ecological rules and regulation can pose threats to the things they value and consequences can be minimized by exhibiting green purchase behavior. The VBN theory explains the relationship of pro environmental personal values, beliefs and norms which are connected via a chain, in green marketing context for preserving biosphere (Liao, Wu, & Pham, 2020). Pro- environmental actions occur in response to consumer's personal moral norms and beliefs about such actions, these are stimulated in consumers who believe in the negative outcomes of environmental hazards for others, and their actions of exhibiting green purchase behavior could minimize the negative consequences of environmental issues (Zhang, Ruiz-Menjivar, Luo, Liang, & Swisher, 2020). Personal values, norms motivate consumer's pro environmental behavior. Zhu, Tang, Wang, and Chen (2021) incorporated the selfdetermination theory as theoretical background in presenting connections between environmental beliefs and employees green purchase behavior, self-determination theory explanation lies on how individual belief system works to adopt environmentally friendly consumption practices. Inkpen and Baily (2020) revealed strong and positive correlation between consumers environmentally conscious behavior with the adoption of convenient and successful lifestyles with the ideology to practice green consumption. Previous researches done on value leads to the construction of third variable of the study. H1: Environmental belief has significant positive impact on green purchase intention

# 2.3 Price Sensitivity as Moderating Variable Between Environmental Beliefs and Green Purchase Intention

Price is considered as a prime factor in consumer's evaluation of purchase decisions and it is termed as sum total of money the firm charges its customers with the addition of profitability margin in producing specific goods or services (J. Wang, Pham, & Dang, 2020). Sensitivity to price is connected to consumers overall evaluation of company offerings with respect to its financial gains and it refers to consumer perception and response towards variation in price of specific product or service ((Graciola, De Toni, de Lima, & Milan, 2018). Price sensitivity is directly proportionate to consumer's awareness about the availability and variety of substitutes in the market. Expectations about high quality can be assessed with price sensitivity as it get lowered with high expectations about the quality of the products and services (Sana, 2020). Price is a predominant factor in marketing research and it denotes the amount a seller charges after cost analysis of firms (Walia, Kumar, & Negi, 2020). Highly price sensitive consumers may consciously or unconsciously search for price discounts sometimes even at the cost of quality because of their intentions to save money. Price is termed as evaluative yardstick and a prime mediator

in cognitive thinking process in buying (Yue, Sheng, She, & Xu, 2020).

# 2.3.1 Theoretical Contributions Explaining Price Sensitivity

Equity theory can explain the outcome/input criteria for both consumers and suppliers which can leads to a comprehensive technique of price sensitivity interpretation (Oliver & DeSarbo, 1988). As suggested by Bolton and Lemon (1999), the theory explains that customer prefer what is in line with their perception about the cost of product, it consists of financial and non-financial sacrifices (time and stress) associated with buying specific products. The outcomes in equity theory are compared with sacrifices and gains in exchange process by both parties (customers and companies). Extensive research is previously done on price sensitivity and its relationship with green purchase behavior in the context of developed nations. Studies considering these constructs are remarkably absent in developing countries. Sensitivity towards green products prices is directly proportionate to how transparent the price is in terms of its value provision to environment. Erdil (2018) showed greater tendency of less price sensitive consumers towards sustainable products because of their determination to willingly pay extra for environmental welfare. Joshi and Rahman (2015) revealed that high prices has extended the attitude behavior gap with reference to green consumption which associated price ceilings with ethical concerns of consumers.

Consumers with less financial resources were negatively associated with green product purchase while consumers with high affordability were enthusiastically willing to pay premium prices for green products (Salve, Pabalkar, & Roy, 2021). Consumer green behavioral differences rests on how price sensitive and insensitive they are about the green products consumptions; thus price is marked as key determinant on the basis of which consumers analyze final purchase decisions of organic products. Price insensitivity leads to putting emphasis of non-price factors in terms of how it can contribute towards society wellbeing in general (J. Wang et al., 2020). Firms strategic moves in incorporating marketing claims for which consumers are more willing to pay high prices depends upon the various aspects ranging from promoting organic material, sustainable practices and contribution to eco-friendly firms Salve et al. (2021). Thus, in the light of preceding arguments it is assumed that price sensitivity serves as an important determinant in selecting among alternative courses of actions while purchasing green products.

Based on previous literature following hypothesis is developed.

H2: Price sensitivity moderates the relationship between environmental values and green purchase intentions.

# **RESEARCH METHOD**

Research methods is s series of steps followed for investigating a research problem tied with techniques and procedures directed towards the solution of problem upon which crux of the overall research lies (Burns & Scapens, 2000). In this portion, the writer endeavours to explain the philosophical assumptions adopted for the study under consideration.

# 3.1 Nature of The Study

The positivism, deductive approach was employed for discovering the relationship between environmental beliefs and green purchase intentions. This research is quantitative in nature which employed the general educated consumers on the basis of multistage sampling technique in the Khyber Pakhtunkhwa province of Pakistan. Rules for selecting sample size in survey method is explored by previous researchers with strong evidence. Models with simplified versions of conceptual framework can be comprehensively assessed with 200 respondents while model with medium complexity can be finely calculated and computed with sample size of 300-400 (Boomsma, 1983; Kelloway, 1998). Considering the complexity of the proposed theoretical framework it is moving towards moderate intricacy on the continuum of complexity. However, 400 sample size is considered appropriate for the study.

## **3.2 Sample and Sampling Technique**

The current research employed multistage sampling procedure for assessing the responses from the Khyber Pakhtunkhwa, Pakistan as target population. Multistage sampling procedures originates with grouping samples into compact tiny classes from population in multiple phases and levels. In stage one, KPK was divided into three main regions i.e. Northern, Central and Southern regions. The northern part consists of ten districts with thirty five percent population, the central part has seven districts with forty five percent population while the southern part has seven districts with twenty percent of the total population (Rahman, Hayat, Habib, & Iqbal, 2011). In second stage, two districts were chosen from central and southern regions while three districts were drawn from northern region based on the percentage of population and districts. In third step, five universities were sorted out based on the percentage of each district's populations. Two universities were picked from central region, while two were chosen from north region of KPK. Two universities were selected from southern region in order to meet the requirements of equal representation to the study sample.

### **3.3** Tools of Data Collection

A survey instrument was modified and adapted from previous literature that was personally administered in selected universities. Five items tied to the variable Environmental beliefs have been adapted from the studies of (Yadav & Pathak, 2017). Five items that guided in analyzing the proposed relationship of price sensitivity as moderator were adapted from the previous studies conducted by Tan, Ojo, and Thurasamy (2019) and Huang, Nguyen, Natarajan, Nguyen, and Kuzyk (2018). Five questions related to the dependent variable Green purchase intention were adopted from different studies which included first two questions from (Ko, Hwang, & Kim, 2013). one question from the studies of (Rizwan, Mahmood, Siddiqui, & Tahir, 2014), one question from (Kautish et al., 2019) and one question from the work of (Huang et al., 2018). The main reason of extracting the items from different research work was based on the relevance and suitability of questions for understating the disparity between consumers intended and actual belief system with special reference to green purchase intentions. Question items from multiple research papers paved the ways for assessing the unseen motives behind the purchase of ecologically sound green products.

### RESULTS

The main aim of the results section is to testify the proposed relationship between variables via statistical packages and software.

### 4.1 Reliability Statistics

Reliability refers to the constant results over repeat performance of the experiments or any instruments designed and employed for analyzing the responses from the sample group (Schrepp, 2020). All the values of Cronbach alpha represent excellent reliabilities which was above 0.7 a minimum threshold for the data in acceptable range which indicates that all the constructs have strong reliabilities statistics. The Cronbach alpha for Green purchase intentions was found as .923, Price Sensitivity was found as .865 and the Environmental Beliefs reliability was ascertained as .922 which characterizes strong reliabilities.

# **Table.1 Individual Reliability Statistics**

CONSTRUCTS	NUMBER OF ITEM	CRONBACH 'S ALPHA
Green Purchase Intention	5	.923
Price Sensitivity	5	.865
Environmental Beliefs	5	.922

# **4.2 Construct Validity**

Construct validity refers to the evaluation of how well a concept and theory is translated into an actual program (Gomez, Brown, & Spier, 2020). Construct validity rests upon drawing inferences based upon lawful operationalization of constructs stemming from theoretical explanations of the variables under study (Trochim & Donnelly, 2001).

## 4.2.1 Convergent Validity

Convergent validity is the measurement of constructs that exhibits high relevance with respect to theory. The measuring items should be related to each based upon (land of theory) that are in fact related based upon (land of observations) which explains that measures should allied and connected to one another that are in fact related with each other (de Guinea, Titah, & Léger, 2013). The current study has taken in to considerations the Average Variance Extracted figures for attaining the convergent validity criteria. In the statistics language the convergent validity is attained when the 0.50 or above figure is established for the constructs under study (Day, Shleicher, Unckless, & Hiller, 2002).

Constructs	No. of items	CR	AVE
Environmental Beliefs	05	0.87	0.57
Price Sensitivity	05	0.83	0.51
Green Purchase Intentions	05	0.87	0.57

#### TABLE.2 Average Variance Extracted and Composite Reliability

**4.3** Structural Equation Modeling Evaluating the association between Environmental Belief and Green Purchase Intention. Regressing the role of Price Sensitivity as moderator between Environmental Belief and Green Purchase Intention.

H1: Environmental Belief has significant positive impact on Green Purchase intention:

H2: Price Sensitivity moderates the relationship between Environmental Belief and Green Purchase Intention

The standard loadings of the items covering Environmental Belief were .0.79. 0.81, 0.83, 0.84 and 0.83 for EB1, EB2, EB3, EB4 and EB5 respectively. Connection between Environmental Belief and Green Purchase Intention was regressed for analyzing the first and second set of hypotheses (*H1 and H2*). The direct relationship between Environmental Belief and Green Purchase Intention was tested with model fit indices values which were constituted within acceptable threshold levels for addressing the hypothesis of the study. In the second phase Price Sensitivity as moderating variable was regressed for checking its moderating impact on the relationship between Environmental Beliefs and Green Purchase Intention with insertion of error terms co-variances for improvement of model fitness (*H2*).



# Figure # 1. Model fit for Structural path- yielding positive and significant relationship between EB and GPI with role of PS as moderating variable

#### 4.4 Model Fit Indices

The resultant output of the model fit (as indicated in table) with  $\chi^2$  / DF was found 1.483 which was in the range of acceptable threshold level 1 and 3. CFI value .99 was found above threshold level >0.95. GFI value was .92 which was marginally less than acceptable range of >0.95. AGFI value of the path model was 0.95 greater than the threshold level of >.08. TLI value was 0.98 above the set criteria of 0. 95. SRMR value was found less than.08 i-e 0.02 and RMSEA was 0.03 less than the threshold level of 0.06. PCLOSE value was 0.19 which is above >0.05 a threshold level indicating the robustness and suitability of the path model showing structural connection of hypotheses of the study.

Measure	Estimates	imates Threshold	
Sig p value CMIN	.002 136.416	<0.05	
DF	92		
CMIN/DF	1.483	Between 1 and 3	
CFI	0.99	>0.95	
TLI GFI	0.98 0.95	>0.95 >0.95	
AGFI	0.92	>0.80	
SRMR	0.02	<0.08	

Table # 3. Values of the Constructs depic	cting the Path model robustness for Structural
connection between EB and GPI	with role of PS as moderating variable.

RMSEA	0.03	<0.06
PCLOSE	0.91	>0.05

The value of the beta coefficient (0.38 with p value 0.000 and critical ratio 3.850) was ascertained significant because its p value was less than 0.05 ie .000 which supports the first hypothesis of the study indicating significant association between Environmental Beliefs and Green Purchase Intention which leads to the accaptance of first hypothesis of the study drafting the way for analysis that Environmnetal Beliefs has significant direct effect on Green Purchase Intentions. All the statistical tests revealed the accaptable results which allows for checking the role of Price sensitivity as moderating constructs between Environmental Beliefs and Green Purchase Intention. Moderation analysis needs computation of interaction terms by multiplying the moderator with predictor variable and moderation exits if the relationship between predictor and criterion variable is significant (Memon et al., 2019). Moderation impose restrictions on significance of results for both (Modertor and Dependant variable) and interaction of both moderator and depedent variable (Montoya, 2019).

Results of the study in the first phase revealed ( $\beta = 0.38$ , Critical ratio= 3.850, p value 0.000) significant relationship between Environmental Beliefs and Green purchase intentions which supports the first hypothesis of the study . Second phase of the study reveled ( $\beta = 0.35$ , Critical ration= 3.722, p value 0.000) positive and significant association of moderator (Price Sensitivity) and criterion variable (Green Purchase Intention). The third phase explains the interaction between Price Sensitivity and Environmental Beliefs with composition of third variable as interaction term. The H2 hypothesis of the study is accapted as the interaction terms p value is 0.001 significant ( $\beta = -.24$ , Critical ratio= -3.186). The standardized regression weight -.24 indicates that XxM(EVxPS) expalins -.24 % of variations in Green Purchase Intention. Price Sensitivity moderates the relationship between Environemntal Beliefs and Green Purchase Intention as the direct effect of Environmental Beliefs on Green Purchase Intention was ascertained as significant, with insertion of moderator (Price Sensitivity) turned the significance resultant output which depicts that moderation holds true with interaction terms.

Table # 4. Path coefficient analysis with insertion of PS as moerator between EB and GPI					
Predictor	Standardized	ß	SE	CR	P-Value
	Estimates	Р			
X(Environmental Beliefs)	0.38	.364	.095	3.850	.000
M(Price Sensitivity)	0.35	.514	.138	3.722	.000
XxM(EBxPS)	-0.24	083	.026	-3.186	.001

Table # 4. Path coefficeint analysis with insertion of PS as moerator between	EB and GPI
---	------------

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

### 4.5 Graphical representation of Price Sensitivity as moderator between Environmental Beliefs and **Green Purchase intention**

The pictorial representation of the role of Price sensitivity as moderator between Environmental Beliefs and Green purchase intentions revealed the negative association of Price Sensitivity with sound base that Environmental Beliefs increases Green Purchase Intentions when Price Sensitivity is low, in other words environmental Beliefs decreases Green Purchase Intentions when Price Sensitivity is high. The description goes in harmony with literature of price sensitivity role in green consumption behavior. Consumers who are highly sensitive towards price variations are likely to possess weak environmental beliefs regarding green consumption behavior.



Figure 1. Interaction plot- assessing the role of Price Sensitivity as Moderator between Environmental Beliefs and Green Purchase Intention.

#### DISCUSSIONS

The major research objective was to identify the impact of environmental beliefs on green purchase intentions with assessing the role of price sensitivity as moderator. The finding of the study leads to acceptance of first hypotheses where environmental beliefs exerted significant influence on green purchase intentions. Previous research depicts similar results in the field of green marketing where cognitive perceptual beliefs were tied and linked with green purchase intentions with confirmation of the notion that ecologically cognitive beliefs exerts considerable impact on the ways consumers think about green consumption practices (Moon, Mohel, & Farooq, 2021). The second objective of the research was to examine the role pf price sensitivity as moderating variable. The findings revealed that price sensitivity moderates the relationship between environmental beliefs and green purchase intentions which leads to the acceptance of second hypothesis of the study.

The current research has multiple contributions. Firstly, it contributes to the green consumption and biospherical literature by highlighting the deep rooted consumers belief system tied with environmental purchase intentions. Secondly, the existing research examines the role of price sensitivity as moderator in relationship between eco-belief system and green purchase intentions. Price sensitivity creates harmony between profit and sustainable practices of the business ventures that serves as competitive yardstick for brand and marketing managers in designing, building, implementing and maintaining the green marketing strategies. It can assist manufacturing sectors in adaptation of green policies regarding packaging and labeling of green products. It is recommended for future research to broaden the study setting in other regions of Pakistan for understating a whole picture of environmental beliefs, price sensitivity and green purchase intentions. Longitudinal study in future research can better helps in identifying the variations caused by price changes in consumer eco-belief system with reference to purchase intentions of green products. This study contributes to the literature by initiating a proposed model that helps in alleviating the disparity between consumer intended and actual purchase behavior through environmental beliefs and green purchase intentions with price variations of green products.

#### CONCLUSIONS

The current research provides an insight about the role of consumer environmental beliefs and its impact

on green purchase intentions with role of price sensitivity as moderator. The current study employed quantitative, deductive approach via structurally adapted questionnaire that was regressed via AMOS. Structured equation modeling was employed for checking the hypotheses of the study. Moreover, the conformity factor analysis was recruited for assessment of its fitness. The first hypothesis was accepted as the significant association between Environmental beliefs and Green Purchase Intentions was found positive while second hypothesis of the study was also accepted as the resultant output of the price sensitivity as moderator was significant depicting moderation between environmental beliefs and green purchase intentions. The main aim of the research was to identify the impact of environmental beliefs on green purchase intentions with role of price sensitivity as moderator. The findings of the study suggested that green marketing beliefs exhibits strong association with green purchase intentions in Khyber Pakhtunkhwa region of Pakistan. Results of the study revealed that consumers in specific regions of Khyber-Pakhtunkhwa do have environmental belief system which embark them towards the purchase of green products. Price conscious consumer preferred green products when they were offered with premium prices which indicates that lower price drives consumers towards actual purchase decisions of green products. Marketers and brand managers can take advantage of price variations for imparting the habit of ecologically sound practices in consumption of goods and services.

#### REFERENCES

- Alareqe, N. A., Roslan, S., Taresh, S. M., & Nordin, M. S. (2021). Universality and Normativity of the Attachment Theory in Non-Western Psychiatric and Non-Psychiatric Samples: Multiple Group Confirmatory Factor Analysis (CFA). *International journal of environmental research and public health*, 18(11), 5770.
- Belmonte-Ureña, L. J., Plaza-Úbeda, J. A., Vazquez-Brust, D., & Yakovleva, N. (2021). Circular economy, degrowth and green growth as pathways for research on sustainable development goals: A global analysis and future agenda. *Ecological Economics*, 185, 107050.
- Bolton, R. N., & Lemon, K. N. (1999). A Dynamic Model of Customers' Usage of Services: Usage as an Antecedent and Consequence of Satisfaction. *Journal of marketing research*, 36(2), 171-186. doi: 10.1177/002224379903600203
- Boomsma, A. (1983). On the robustness of LISREL (maximum likelihood estimation) against small sample size and non-normality.
- Braga Junior, S., Martínez Marta, P., Correa Caroline, M., Moura-Leite Rosamaria, C., & Da Silva, D. (2019). Greenwashing effect, attitudes, and beliefs in green consumption. *RAUSP Management Journal*, 54(2), 226-241. doi: 10.1108/rausp-08-2018-0070
- Burns, J., & Scapens, R. W. (2000). Conceptualizing management accounting change: an institutional framework. *Management accounting research*, 11(1), 3-25.
- Chang, T.-W., Chen, Y.-S., Yeh, Y.-L., & Li, H.-X. (2021). Sustainable consumption models for customers: investigating the significant antecedents of green purchase behavior from the perspective of information asymmetry. *Journal of Environmental Planning and Management*, 64(9), 1668-1688.
- Cheung, M. F., & To, W. M. (2019). An extended model of value-attitude-behavior to explain Chinese consumers' green purchase behavior. *Journal of Retailing and Consumer Services*, 50, 145-153.
- Chou, S.-F., Horng, J.-S., Liu, C.-H. S., & Lin, J.-Y. (2020). Identifying the critical factors of customer behavior: An integration perspective of marketing strategy and components of attitudes. *Journal of retailing and consumer services*, 55, 102113.
- Day, D. V., Shleicher, D. J., Unckless, A. L., & Hiller, N. J. (2002). Self-monitoring personality at work: a meta-analytic investigation of construct validity. *Journal of Applied Psychology*, 87(2), 390.
- de Guinea, A. O., Titah, R., & Léger, P.-M. (2013). Measure for measure: A two study multi-trait multimethod investigation of construct validity in IS research. *Computers in Human Behavior*, 29(3), 833-844.
- Elsbach, K. D., & van Knippenberg, D. (2020). Creating high-impact literature reviews: An argument

for 'integrative reviews'. Journal of Management Studies, 57(6), 1277-1289.

- Erdil, M. (2018). UNDERSTANDING THE DRIVERS OF GENERATION Y CONSUMERS'GREEN PURCHASE INTENTION: PRICE SENSITIVITY AS A MODERATING VARIABLE. *Journal of Business Economics and Finance*, 7(1), 89-100.
- Fishbein, M., Jaccard, J., Davidson, A. R., Ajzen, I., & Loken, B. (1980). Predicting and understanding family planning behaviors *Understanding attitudes and predicting social behavior*: Prentice Hall.
- Gomez, J. A., Brown, J. L., & Spier, E. (2020). Factor structure, measurement invariance, and construct validity of MELQO measure of child development and early learning in Laos. *International Journal of School & Educational Psychology*, 1-27.
- Graciola, A. P., De Toni, D., de Lima, V. Z., & Milan, G. S. (2018). Does price sensitivity and price level influence store price image and repurchase intention in retail markets? *Journal of retailing and consumer services*, 44, 201-213.
- Groening, C., Sarkis, J., & Zhu, Q. (2018). Green marketing consumer-level theory review: A compendium of applied theories and further research directions. *Journal of Cleaner Production*, *172*, 1848-1866.
- Huang, Y., Nguyen, M.-K., Natarajan, A. K., Nguyen, V. H., & Kuzyk, A. (2018). A DNA origamibased chiral plasmonic sensing device. ACS applied materials & interfaces, 10(51), 44221-44225.
- In, J. (2017). Introduction of a pilot study. Korean journal of anesthesiology, 70(6), 601.
- Inkpen, R., & Baily, B. (2020). Environmental beliefs and their role in environmental behaviours of undergraduate students. *Journal of Environmental Studies and Sciences*, 10(1), 57-67.
- Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behaviour and future research directions. *International Strategic management review*, 3(1-2), 128-143.
- Kautish, P., Paul, J., & Sharma, R. (2019). The moderating influence of environmental consciousness and recycling intentions on green purchase behavior. *Journal of Cleaner Production*, 228, 1425-1436.
- Kelloway, E. K. (1998). Using LISREL for structural equation modeling: A researcher's guide: Sage.
- Ko, E., Hwang, Y. K., & Kim, E. Y. (2013). Green marketing'functions in building corporate image in the retail setting. *Journal of Business Research*, 66(10), 1709-1715.
- Liao, Y.-K., Wu, W.-Y., & Pham, T.-T. (2020). Examining the moderating effects of green marketing and green psychological benefits on customers' green attitude, value and purchase intention. *Sustainability*, *12*(18), 7461.
- Liobikienė, G., & Poškus, M. S. (2019). The importance of environmental knowledge for private and public sphere pro-environmental behavior: Modifying the Value-Belief-Norm theory. *Sustainability*, *11*(12), 3324.
- Maarouf, H. (2019). Pragmatism as a supportive paradigm for the mixed research approach: Conceptualizing the ontological, epistemological, and axiological stances of pragmatism. *International Business Research*, 12(9), 1-12.
- Majeed, A., Ahmed, I., & Rasheed, A. (2021). Investigating influencing factors on consumers' choice behavior and their environmental concerns while purchasing green products in Pakistan. *Journal of Environmental Planning and Management*, 1-25.
- Marvi, M. H., Minbashrazgah, M. M., Zarei, A., & Baghini, G. S. (2020). Knowledge foundation in green purchase behaviour: Multidimensional scaling method. *Cogent Business & Management*, 7(1), 1773676.
- Memon, M. A., Cheah, J.-H., Ramayah, T., Ting, H., Chuah, F., & Cham, T. H. (2019). Moderation analysis: issues and guidelines. *Journal of Applied Structural Equation Modeling*, 3(1), 1-11.
- Millner, A., & Ollivier, H. (2020). Beliefs, politics, and environmental policy. *Review of Environmental Economics and Policy*.
- Montoya, A. K. (2019). Moderation analysis in two-instance repeated measures designs: Probing

methods and multiple moderator models. *Behavior research methods*, 51(1), 61-82.

- Moon, M. A., Mohel, S. H., & Farooq, A. (2021). I green, you green, we all green: Testing the extended environmental theory of planned behavior among the university students of Pakistan. *The Social Science Journal*, 58(3), 316-332.
- Munerah, S., Koay, K. Y., & Thambiah, S. (2021). Factors influencing non-green consumers' purchase intention: A partial least squares structural equation modelling (PLS-SEM) approach. *Journal of Cleaner Production*, 280, 124192.
- Obilor, E. I., & Amadi, E. C. (2018). Test for significance of Pearson's correlation coefficient. International Journal of Innovative Mathematics, Statistics & Energy Policies, 6(1), 11-23.
- Oliver, R. L., & DeSarbo, W. S. (1988). Response determinants in satisfaction judgments. *Journal of consumer research*, 14(4), 495-507.
- Rahman, A., Hayat, Y., Habib, Z., & Iqbal, J. (2011). Rural-Urban Disparities in Khyber Pakhtunkhwa Pakistan. *Sarhad J Agric*, *27*(3), 477-483.
- Rausch, T. M., & Kopplin, C. S. (2021). Bridge the gap: Consumers' purchase intention and behavior regarding sustainable clothing. *Journal of Cleaner Production*, 278, 123882.
- Rizwan, M., Mahmood, U., Siddiqui, H., & Tahir, A. (2014). An empirical study about green purchase intentions. *Journal of Sociological Research*, *5*(1), 290-305.
- Salve, P. P., Pabalkar, V., & Roy, T. K. (2021). Consumers Price Sensitivity towards Marketing Claims for Eco-Friendly Cosmetics. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 18(4), 6594-6611.
- Sana, S. S. (2020). Price competition between green and non green products under corporate social responsible firm. *Journal of retailing and consumer services*, 55, 102118.
- Schrepp, M. (2020). On the Usage of Cronbach's Alpha to Measure Reliability of UX Scales. *Journal of Usability Studies*, 15(4).
- Shabbir, M. S., Bait Ali Sulaiman, M. A., Hasan Al-Kumaim, N., Mahmood, A., & Abbas, M. (2020). Green Marketing Approaches and Their Impact on Consumer Behavior towards the Environment—A Study from the UAE. *Sustainability*, 12(21), 8977.
- Shukla, P., Dipen, P., Malik, S., & Mishra, D. K. (2021). The Role of Green Marketing in Energy Conservation in the Domestic Sector. *International Journal of Energy Economics and Policy*, 11(1), 263.
- Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in science education*, 48(6), 1273-1296.
- Tan, C. N. L., Ojo, A. O., & Thurasamy, R. (2019). Determinants of green product buying decision among young consumers in Malaysia. *Young Consumers*.
- Trochim, W. M., & Donnelly, J. P. (2001). *Research methods knowledge base* (Vol. 2): Atomic Dog Pub.
- Walia, S. B., Kumar, H., & Negi, N. (2020). Impact of brand consciousness, perceived quality of products, price sensitivity and product availability on purchase intention towards 'green'products. *International Journal of technology management & sustainable development*, 19(1), 107-118.
- Wang, J., Pham, T. L., & Dang, V. T. (2020). Environmental consciousness and organic food purchase intention: a moderated mediation model of perceived food quality and price sensitivity. *International journal of environmental research and public health*, 17(3), 850.
- Wang, Y. A., & Rhemtulla, M. (2021). Power analysis for parameter estimation in structural equation modeling: A discussion and tutorial. Advances in Methods and Practices in Psychological Science, 4(1), 2515245920918253.
- Webster, R. J., Morrone, N., & Saucier, D. A. (2021). The effects of belief in pure good and belief in pure evil on consumer ethics. *Personality and Individual Differences*, 177, 110768.
- Wijekoon, R., & Sabri, M. F. (2021). Determinants that influence green product purchase intention and behavior: A literature review and guiding framework. *Sustainability*, *13*(11), 6219.

- Witek, L., & Kuźniar, W. (2021). Green purchase behavior: The effectiveness of sociodemographic variables for explaining green purchases in emerging market. *Sustainability*, 13(1), 209.
- 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. doi: https://doi.org/10.1016/j.ecolecon.2016.12.019
- Yue, B., Sheng, G., She, S., & Xu, J. (2020). Impact of consumer environmental responsibility on green consumption behavior in China: The role of environmental concern and price sensitivity. *Sustainability*, 12(5), 2074.
- Zaremohzzabieh, Z., Ismail, N., Ahrari, S., & Samah, A. A. (2021). The effects of consumer attitude on green purchase intention: A meta-analytic path analysis. *Journal of Business Research*, *132*, 732-743.
- Zhang, L., Ruiz-Menjivar, J., Luo, B., Liang, Z., & Swisher, M. E. (2020). Predicting climate change mitigation and adaptation behaviors in agricultural production: A comparison of the theory of planned behavior and the Value-Belief-Norm Theory. *Journal of Environmental Psychology*, 68, 101408.
- Zhu, J., Tang, W., Wang, H., & Chen, Y. (2021). The Influence of Green Human Resource Management on Employee Green Behavior—A Study on the Mediating Effect of Environmental Belief and Green Organizational Identity. *Sustainability*, 13(8), 4544.
- Ziegler, A. (2021). New Ecological Paradigm meets behavioral economics: On the relationship between environmental values and economic preferences. *Journal of Environmental Economics and Management*, 102516.