

## Role of Values and Environmental Concerns for the Sustainable Purchasing Behavior: Evidence from Pakistan

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### Abstract

Sustainable purchasing is an attempt to purchase greener, healthier, and more economical items from greener, more sustainable organizations. It is based on the idea that each and every buy has shrouded human wellbeing through natural and social effects and that it is possible to decrease unfavourable effects by purchasing better items. The motive of the present study was to identify the role of values and environmental concerns for sustainable purchasing behaviour of buyers in the Pakistani green market. With the help of reliable and valid Likert type self-administered questionnaires, data was collected from the sample of the people who claim to live green lifestyles and purchase green products. Results of Smart PLS path model confirm that values and environmental concerns have an influence on sustainable purchasing behaviour in the Pakistani green market. This study provides a greater insight to improve purchaser behaviour in the green market of Pakistan and will help to increase the trust of buyers towards the green market.

### Peran Nilai dan Kekhawatiran Lingkungan untuk Pembelian Perilaku Berkelanjutan: Bukti dari Pakistan

#### Abstrak

Pembelian berkelanjutan merupakan upaya untuk membeli barang-barang yang lebih hijau, lebih bermanfaat, dan lebih ekonomis dari organisasi hijau yang berkelanjutan. Hal ini berangkat dari ide dasar bahwa setiap pembelian berdampak pada kesejahteraan manusia, alam dan kehidupan sosial sehingga ada kemungkinan untuk mengurangi efek negatifnya dengan membeli barang-barang yang lebih ramah lingkungan. Tujuan penelitian ini adalah untuk memahami peran nilai-nilai dan kepedulian pada lingkungan terhadap perilaku pembelian berkelanjutan para pembeli di pasar hijau Pakistan. Data sampel penelitian dikumpulkan melalui kuesioner berbasis Skala Likert yang andal dan valid dari orang-orang yang mengaku memiliki gaya hidup hijau dan membeli produk hijau. Hasil dari model Smart PLS path menegaskan peran nilai-nilai dan kepedulian pada lingkungan memiliki pengaruh pada perilaku pembelian berkelanjutan di pasar hijau Pakistan. Penelitian ini menawarkan wawasan yang lebih luas untuk meningkatkan perilaku pembeli di pasar hijau Pakistan dan meningkatkan kepercayaan pembeli di pasar hijau.

*Keyword: environmental concern, green market, purchasing behaviour, values, Pakistan.*

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### 1. Introduction

Sustainable purchasing is an attempt to purchase greener, more beneficial, and more economical items from more manageable greener organizations. It depends on the basic idea that each and every buy has shrouded human wellbeing, natural and social effects and that it is conceivable to decrease unfavorable effects by purchasing better items (Joshia & Rahmanb, 2015).

We organize our hypotheses around the moderating effect of ecological awareness and knowledge on young generations' intention to buy green products and its consequential implications to actual purchasing activities (Young, Hwang, McDonald, & Oates, 2010). A portion of the natural credits of most enthusiasm to clients incorporate reused content, vitality productivity, indoor air quality, biodegradability and more secure material (Joshia, & Rahmanb, 2015). So the evidencing

values and concerns will always help for purchasing sustainable and reliable products (cosmetics, accessories, dresses, shoes, furniture, food, crockery, electronic machines) of every brand belonging to every sphere.

Customer natural concern enlarges when utilization behavior turns out to be more adapted towards environmentally-sensitive products and administrations; clients change their acquiring conduct to develop green purchasing behavior (Kilbourne & Pickett, 2008). It has been known that reusing knowledge results in increase of rate in reusing between customers (Ottman, Stafford, & Hartman, 2006) and that self-revelation asserts on green items covering such that the product is sustainable, ozone-friendly, natural, without pesticide, and reusable, all help customer's intension to choose items which can advance their general wellbeing.

Previous research demonstrates customers' attitude towards environmentally friendly products (D'Souza et al., 2007; Matulich, Papp & Haytko, 2008). It was found that peer opinion plays a role in influencing customer decisions towards environmental friendliness (Straughan & Roberts, 1999). Choice of a sustainable nature, for example, to reuse and to take an interest for activities planned to secure the earth, are motivated in circumstances where peers accomplish it (Krebs-Smith et al., 1996). Bei and Simpson (1995) found that product cost and quality criteria assist customers to make decisions either to purchase green products or conventional products. However, it is progressively turning into reality that individuals are keener to pay additional costs for sustainable products. (Chen & Chang, 2012; Laroche, Bergeron, & Barbaro-Forleo, 2001). In many topographical localities, former research on sustainable manufactured items buy has been undertaken. Meyer (2000) explores the view of American drivers in regards to the purchase of hybrid cars. It was found that their inclination to search about sustainable products, apparent social value, and the correspondence of drivers' self-view, were all affective for purchase decision. In Egypt after another research of purchasers, it was found by Hopkins and Mehanna (2000) that more established buyers acknowledge green items to have unprecedented quality, and their green utilization conduct could add to the advancement of natural quality.

A considerable number of studies on customers' ecological concerns have been carried out in Western nations (Erdemir et al., 2012). It was observed by Lee (2008), that in Asian countries including Malaysia, few researches have been performed on environmental issues; and Biswas and Roy (2015) have made research efforts to analyze development of customers' attitudes, intentions, and behavior towards environmental-friendly products. There exist three dimensions of market choice

behavior: first is the purchasers' decision to buy or not buy an item, second is purchasers' decision of one sort of item over the other, and third and last is the purchasers' decision among brands. (Sweeney & Soutar, 2001).

In numerous developing countries, for example Pakistan, green purchasing is generally in its initial phase of its development. The citizens and government of Pakistan have begun to understand the gravity of the natural threats (Mustafa & Sims, 2006). The general population is presently more anxious than in the past to respond to claims in view of green issues.

In light of the above-mentioned avocation, the objective of the current research is to scan the influence of consumption values on customer environmental concern and to check the influence of environmental concern on actual green purchase and consumption under the influence of moderating variable knowledge about ecological/green issue exposed via the purchase of sustainable products in Pakistan. Empirical studies found the impacts of consumption values such as functional value quality, functional value price, social value, environmental value, conditional value, and epistemic value on actual green purchase and consumption in association with environmental concern and knowledge about ecological/ green issue. Such quantitative study will help us to know the role of human value and environmental concern for sustainable purchasing behavior in Pakistan. We will also be able to get the idea about the thinking of Pakistani people of sustainable product purchasing behavior. The one major objective of the present research is to create awareness among people about sustainable products.

The significance of this research is to know about the role of human values and environmental concerns of different personalities for the purchase of such products which fulfill user requirements, give the best performance for a long time, having good, sustainable and reliable quality for all. We will discuss behavior and concerns, skills and values for the purchase of greener and sustainable products providing the items of the best quality.

Green items have developed as a consequence of the increasing concerns about worldwide and neighborhood contamination volume and Earth-wide temperature boost (Srivastava, 2007). The idea was discovered at first in the field of green products development and green acquirement however is presently apparent at all levels of supply chains (Srivastava, 2007). In current supply chains, customers are considered as a vital part of the chains and consequently the idea of green consumerism has developed as a consequence of downstream data course by means of advertising channels (Srivastava, 2007). It is examined by

(Azevedo, Carvalho, & Machado, 2011) that supply chains provide benefits to customers through green measures, innovations, and practices in several ways. It is noted by Azevedo et al. (2011) that green items have been demonstrated to have diminished destructive symptoms, decreased hazard, lessened lethal substances, minimized health problem, enhanced recyclability and enhanced environmental friendliness. During a particular period of time, environmental growth could likewise be acknowledged in light of these advantages to customers (Azevedo et al., 2011).

**Functional value quality.** According to Sheth, Newman, and Gross (1991), functional value quality is the apparent effectiveness obtained from an option's ability for useful, functional and physical execution. Confirming to basic of theory of consumption values, functional values are operationalized as price and quality of the purchased green product (Sheth et al., 1991). It is about the consistent quality of purchased product, how long it performs well with friendly interface. On the other hand, customers are intensely dependent upon specialists' suggestions to reduce their risk conception (Claudio, 2006). Figure 1 displays the hypothesis of effects of values on purchasing behavior.

**H<sub>1</sub>:** Functional value quality has positive influence on environmental concern as communicated through the purchase of green items.

**Functional value price.** Accordingly Sheth et al. (1991) provided that apparent utility price selected from a choice's capability for valuable, functional or physical execution and was considered to be assembled by the thing's prominent qualities. The useful estimation of a green item is affected by its physical execution controlled by elements. For example, dependability,

solidness, and cost, which join to produce utilitarian advantages for purchaser.

**H<sub>2</sub>:** Functional value price has positive influence on environmental concern as communicated through the purchase of green environment

**Social value.** Social value is apparent effectiveness gained from an optional relationship among one or more particular social groups and is characterized as social worth. Furthermore, it was précised by the item relationship among different reference gatherings of clients (Sheth et al, 1991). Therefore, customers who buy green products are not just defending the earth by being in possession of account for environmental safety. Rather, they encourage others to do same, like their friends and relatives (Perrin & Barton, 2001; Alderman, 2013; Dietz, 2015; Holden, 2016).

**H<sub>3</sub>:** Social value has positive influence on environmental concern as communicated through the purchase of green items.

**Environmental value.** Environmental value is about the protection of the environment which is revealed for the safety of environment through green product consumption (Tan & Lau, 2009; Cherian & Jacob, 2012; Ali & Ahmad, 2016; Chen & Hung, 2016). New environmental desires make it basic for organizations to comprehend manageability issues regarding environmental value (Rosenbàum, 2013; Husted & Russo, 2014; Holden, 2016). This is so that they can achieve environmental and economic goals (Dangelico & Pujari, 2010; Glasson, Therivel & Chadwick, 2013; Kraft, 2015).

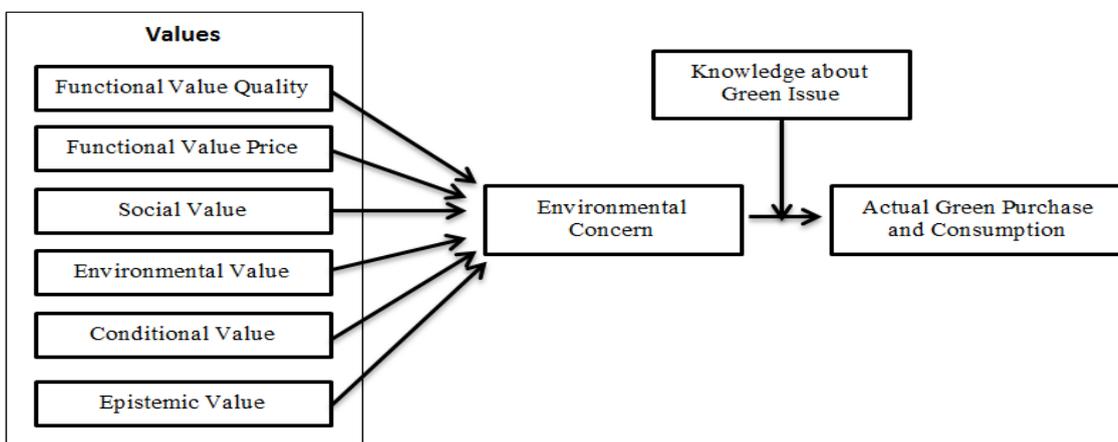


Figure 1. Effects of values on purchasing behaviors

**H<sub>4</sub>:** Environmental value has positive influence on environmental concern as communicated through the purchase of green environment.

**Conditional value.** Conditional value is seen as effectiveness of the alternative faced by individuals considering the outcome of the exact condition or circumstances (Sheth et al., 1991). Past exploration

examines (Laaksonen, 1993; Lin & Huang, 2012) that customer decision conduct and purchase are connected with individual circumstances, periods, and places. Lin and Huang (2012) found that limited quality affected purchaser's decision conduct as much as observed about ecological results by the purchaser. In any case, contingent quality is an irrelevant indicator of supported green utilization conduct (Lin & Huang, 2012; Biswas & Roy, 2015; Suki, 2015; Gonçalves, Lourenço, & Silva, 2016).

**H<sub>5</sub>:** Conditional value has positive influence on environmental concern as communicated through the purchase of green environment.

**Epistemic value.** Epistemic value is a huge indicator among the consumption values (Lin & Huang, 2012; Gonçalves et al., 2016). Information assumes a vital part in deciding shoppers' conduct (Laroche et al., 2001; Asay, 2013; Inman & Nikolova, 2016). To be sure, going before exploration has stated that epistemic value is a significant indicator of green utilization conduct (Biswas & Roy, 2015). The greater part of past studies included either item information or ecological learning. Be that as it may, this study incorporates both natural learning and item information.

**H<sub>6</sub>:** Epistemic value has positive influence on environmental concern as communicated through the purchase of green environment.

**Environmental concern.** Environmental concern is the awareness of an individual about green issues. Individuals will seek to fathom natural aspects or contribute to such endeavors. State of mind is a decent expectation of a man's expectation to perform in naturally concerned procedures. Few researchers examined that environmental concern and environmental friendly conduct have positive relationship (Straughan & Roberts, 1999; Cheng & Monroe, 2012; Lun, Lai, Wong & Cheng, 2015; Boztepe, 2016). The expanding number of purchasers are indicating that environmental concern may be revealed through the increasing inclination to buy green products (Hasnah Hassan, 2014; Suki, 2015; Moser, 2016). The literature on the determinants of green purchase intention is immense.

**H<sub>7</sub>:** Environmental concern has positive impact on actual green purchase and consumption.

**Knowledge about ecological/green Issue.** According to Chan and Lau (2000), the environmental conduct of a person is exceptionally subject to their green knowledge, friendliness and intention; such behavior makes awareness in individuals to purchase sustainable products. Knowledge about Ecological issue is a vital factor about which there must be awareness in people

for the safety of good ecological conditions and healthier life (Mueller, 2009; Living & Riva, 2014; Anderson, 2015; Roberts, 2016; Shiva, 2016).

**H<sub>8</sub>:** Knowledge about ecological/ green issue moderates the association among environmental concern and actual green purchase and consumption.

**Actual green purchase and consumption.** Mustafa and Sims (2006) characterized green purchasing conduct as the utilization of items that are valuable to the earth and are recyclable and receptive to environmental concerns. Green purchase and consumption can be identified by the customers' endeavors in reusing, vitality protection and vitality productive machines, legitimate transfer of specific items and poisonous chemicals and partaking in grass-roots endeavors and performance. As indicated by Bagozzi and Warshaw (1990), readiness to purchase green products with suggestion to apply a specific level of exertion expected to perform the purchasing conduct and is more feasible than behavioral measures in catching customers' psyche.

## 2. Methods

The study utilized cross-sectional exploration plan as a part of examination. The sample was collected through a mix of convenience sampling and cluster sampling. Samples were collected by using self-administrated questionnaire based on Likert scale which is valid. Functional value quality, Functional value price, Social value, Environmental value, Conditional value and Epistemic Value questionnaire were adapted from Suki (2015) with four items of each variable. An environmental concern questionnaire was adopted from Suki (2015) with ten items. Knowledge about green issue questionnaire were collected from Lai and Cheng (2015) with five items. Actual green purchase and consumption questionnaire was adopted from Suki (2015) with nine items. Samples were collected from the public who claim to live green lifestyle and purchase green products, keeping interest to save the environment for living a healthier life. They don't use the products of companies that waste material which harm ecological life and the environment. Furthermore, they take part with groups that are active in campaigns for the safety of environment. Population framework of current research comprised of the following ranks.

At the first step, the public came for shopping in lower and high standard markets were covered. At the second step, people having high education were filtered. At the third step, population framework was consisted of educated people present in high standard markets. At the Fourth step, specific people were chosen who claim for having complete knowledge about sustainable products. At the fifth and last step, communities were

visited who claim to reside by following green lifestyle. Top priority was given to such people who claimed to live green life style (see figure 2).

Three hundred and fifty samples were collected through manually designed questionnaires. Participation was entirely voluntary. The data collected through questionnaires were designed in such a way to get the desired information about the role of values and environmental concerns for sustainable purchasing behavior of customers in Pakistan. After yielding data, researchers analyzed this data through Smart PLS by applying Partial Least Square Structural Equation Modelling (PLS-SEM). In PLS-SEM, collected data was analyzed in two phases: (a) measurement analysis (reliability and validity of the research instrument was examined), (b) structural equation modelling (beta-coefficients, t-values, p-values of the hypotheses were measured). Furthermore, collinearity statistics (VIF) and Average Variance Extracted (AVE) were also calculated (Haenlein & Kaplan, 2004; Hair, Hult, Ringle, & Sarstedt, 2016; Henseler, Ringle, & Sinkovics, 2009; Gudergan, Ringle, Wende, & Will, 2008).

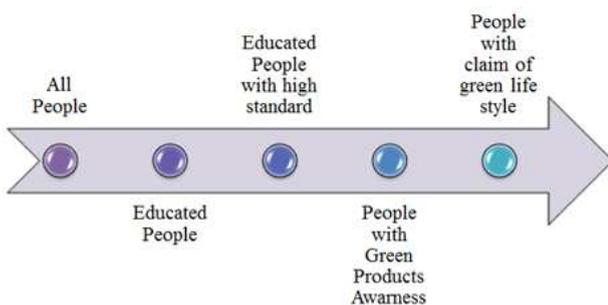


Figure 2. Population frame

### 3. Results and Discussion

The demographic report of respondent’s present research is open in Table 1, which demonstrates that of the specimens, female respondents 24.3 percent and male respondents 75.7 percent. Most of the respondents are aged between 25 to 35 years; such values suggest that a greater number of young people than old purchase and utilize green items.

The values given in Table 2 shows the Cronbach’s alpha of the constructs. It explains the internal consistency of the variables. The correlation among factors and items had greater loadings apart from other objects in different theories; loadings were greater than 0.7 could be measured satisfactory (Henseler et al., 2009). The PLS calculation of all research variable indicated that each variable has greater loading on it. No other variable is loaded more than its own value. The value of Cronbach’s Alpha is greater than 0.7, demonstrating that constructs used in the present study had great internal consistency (Henseler et al., 2010) (see Table-2).

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Table 1. Respondents' Demographics. (N=350)

Variables	Name	Percentage
Gender	Male	75.7
	Female	24.3
Age (Years)	20-35	62.7
	36-55	27.9
	55	9.4
Education Level	Bachelors	41.3
	Masters	12.2
	Doctorate	6.8
	Others	39.7
Nationality	Pakistani	97.3
	International	2.7

Table 2. Cronbach’s Alpha

Variables	Cronbach's Alpha
Environmental Value	0.78
Environmental Concern	0.72
Actual Green Consumption and Purchase	0.82
Conditional value	0.76
Epistemic Value	0.78
Functional Value Quality	0.72
Functional Value Price	0.72
Knowledge about Ecological/ Green Issue	0.75
Quadratic Effect1	0.92
Social Value	0.94

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**Direct relationship and total effect.** Table 3 demonstrates the t value and p-value of hypotheses in the present study. It revealed that all p values are less than 0.05 and t values are greater than 1.96 except the relationships between conditional value and

environmental concern ( $\beta = 0.041$ ,  $t[299] = 0.25$ ,  $p = 0.79$ ), functional value price and environmental concern ( $\beta = -0.021$ ,  $t[299] = 0.29$ ,  $p = 0.76$ ), and social value and environmental concern ( $\beta = -0.029$ ,  $t[299] = 0.31$ ,  $p = 0.75$ ) (see Table 3).

**Table 3. Direct Relationships**

Relationships		$\beta$	t
Independent Variables	Dependent Variables		Values
Environmental Value	Environmental Concern	0.247	3.59*
Environmental Concern	Actual Green Consumption and Purchase	0.181	3.19*
Conditional value	Environmental Concern	0.041	0.25
Epistemic Value	Environmental Concern	0.209	3.23*
Functional Value Quality	Environmental Concern	0.175	3.03*
Functional Value Price	Environmental Concern	-0.021	0.29
Knowledge about Ecological/ Green Issue	Actual Green Consumption and Purchase	0.631	14.87*
Quadratic Effect	Actual Green Consumption and Purchase	0.181	3.19*
Social Value	Environmental Concern	-0.029	0.31

Note: \* $p < 0.05$

**Table 4. Total effects**

Variables Impact		$\beta$	t
Independent Variables	Dependent Variables		Values
Environmental Value	Environmental Concern	0.046	2.81*
Environmental Value	Actual Green Consumption and Purchase	-0.003	0.25
Environmental Concern	Actual Green Consumption and Purchase	0.185	3.49*
Conditional value	Environmental Concern	-0.003	0.25
Conditional value	Actual Green Consumption and Purchase	-0.029	0.31
Epistemic Value	Environmental Concern	0.209	3.23*
Epistemic Value	Actual Green Consumption and Purchase	0.039	2.05*
Functional Value Quality	Environmental Concern	0.175	3.03*
Functional Value Quality	Actual Green Consumption and Purchase	0.032	2.26*
Functional Value Price	Environmental Concern	0.021	0.29
Functional Value Price	Actual Green Consumption and Purchase	0.004	0.28
Knowledge about Ecological/ Green Issue	Actual Green Consumption and Purchase	0.631	14.87*
Quadratic Effect Issue	Actual Green Consumption and Purchase	0.181	3.19*
Social Value	Environmental Concern	0.247	3.59*
Social Value	Actual Green Consumption and Purchase	-0.04	0.25

Note: \* $p < 0.05$

**Hypotheses Testing.** Researchers applied structural equation modelling (SEM) by utilizing Smart PLS to examine the hypothesized relationships. Table-4 demonstrates the results. The study revealed the significant results for  $H_1$  ( $\beta = 0.175$ ,  $t[299]=3.03$ ,  $p=0.01$ ),  $H_4$  ( $\beta = 0.247$ ,  $t[299]=3.59$ ,  $p=0.01$ ),  $H_6$  ( $\beta = 0.209$ ,  $t[299]=3.23$ ,  $p=0.01$ ),  $H_7$  ( $\beta = 0.181$ ,  $t[299]=3.19$ ,  $p=0.01$ ) and  $H_8$  ( $\beta = 0.631$ ,  $t[299]= 14.87$ ,  $p=0.00$ ) (see Table-4). Furthermore, current study disclosed insignificant outcomes for  $H_2$  ( $\beta = 0.021$ ,  $t[299]=0.29$ ,  $p=0.76$ ),  $H_3$  ( $\beta = -0.029$ ,  $t[299]=0.31$ ,  $p=0.75$ ) and  $H_5$  ( $\beta = -0.041$ ,  $t[299]=0.25$ ,  $p=0.79$ ) (see Table 4).

**Discussion.** The impact of explanatory variables on explained variable under the influence of mediating and moderating variables are placed in the exploration theories, investigated through checking the standardized beta coefficient of every indicator variable. Exact results covered that environmental value has the best influence on the environmental concern of green product purchaser and it has been observed that functional value quality and epistemic value appear next to influence the environmental concern for sustainable products purchase. However, functional value price, conditional value, and social value create no influence on green item purchase as a consequence of customer's environmental concern. On the other hand, knowledge about ecological/ green issue moderates the impact of environmental concern on actual green purchase and consumption. In particular, the functional value quality was viewed as critically affecting the purchase of green items however functional value price created opposite results. Consequently,  $H_1$  is acknowledged and  $H_2$ ,  $H_3$ , and  $H_5$  are not supported. On the other hand,  $H_4$ ,  $H_6$ ,  $H_7$ , and  $H_8$  are accepted and supported.

In regards to  $H_2$ , where we have seen that functional value price has no positive influence on environmental concern as communicated through the purchase of green environment. So for explanation of insignificant  $H_2$ , the previous studies (D'Souza et al., 2007; Cătoi, Vrânceanu, & Filip, 2010; Suki, 2015) explained three groups of green products users: light users, average users, and heavy users. The light users are one of those product users who are not worried about prices for purchase of goods and green products. The second product users are those who get worried about prices of products under certain circumstances, such users are average users. While on the other hand since costs of green items is much more than conventional products, so heavy users of product purchasers are those who are more receptive to cost variations of green products. So, heavy users are more worried about the nature of items in their green utilization and about the price. Thus, findings are consistent with these previous studies (D'Souza et al., 2007; Cătoi, Vrânceanu, & Filip, 2010; Suki, 2015).

In relation to  $H_3$ , social value does not display positive impacts on environmental concern for buy the purchase of green items because social communities don't accept anything immediately; it takes time to get social approval. People don't feel the need to use green products and instead prefer conventional products. Biswas and Roy (2015) noticed that there occurs an inconsistent link among social influence and green items acceptance behavior. It is seen in the present study that due to social norms or pressure, consumers don't make decisions to purchase green products.

Now moving towards  $H_5$ , environmental concern is not positively influenced by conditional value communicated through the purchase of sustainable products. The fact is that in Pakistan people don't like to undergo various unsupported conditions like unavailability of sources, and do not bother to offer high expenses for green products. While on the other hand, conventional products are available on discounts. Thus the current study found that conditional value has no critical effect on customer environmental concern. In other words, clients are definitely not included in circumstances which encourage individuals to purchase green items, therefore  $H_5$  is rejected. These results are in line with existing findings provided by Biswas and Roy (2015) and Suki (2015).

#### 4. Conclusion

This paper concludes that values and environmental concerns have an influence on sustainable purchasing behaviour. This conclusion has some practical implications to organisations and associations. Organisations should combine social, environmental, conditional, epistemic, functional value price and quality value in all business practices. Such an approach with more knowledge about green issues helps in developing an interest for environmental concern which leads towards actual practices of green purchase. This study further implied that as customers' environmental concern, green purchase and consumption are particularly impacted by social value, advertisers need to highlight the focal part of companion feeling and master sentiment in spreading positive verbal exchange and empowering their friends' network and family individuals to alter their purchase decision. While purchasing these items, individuals prove more green utilization conduct and more prominent environmental concern. The utilization of companion source would decrease customers' apparent threat regarding their decision to buy green items and strengthen environmental concern. Hence, it is imperative for advertisers to broadcast encouraging viral advertising of adequate green items data through significant sorts of print media, for example, magazines, daily papers, pamphlets, notices, leaflets, public statements and so

forth also electronic media like radio, TV and the Internet.

**Limitations and future research.** Future research ought to broaden current population to cover different territories and localities so as to boost the generalization of the discoveries. Extra studies are recommended to enlarge the current research by selecting buyers who buy and utilize particular sorts of green items from the different geographical areas through global world. Also, Boztepe (2012) says that future assessment should seriously consider over exploring clients' mentalities furthermore, practices relating to environmental consumption through strengthening multivariate connections between factors of variables. Moreover, the incorporation of all the more directing variables for example "specific demographic details" might be incorporated into research method for research client gathering of sustainable products and green nature.

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