

The Impact of Consumer Perceived Value on Purchase Behaviour in a Developing Country: The Case of Green Products

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The study aimed to investigate the influence of five core dimensions of consumer perceived values, including emotional, conditional, social, functional, and epistemic values upon the consumers' purchase behaviour towards green products in Pakistan. A total of 382 sample responses from Karachi, Pakistan were collected using the convenience sampling technique, and SEM technique for data analysis. The results showed that among the five perceived values, only epistemic value was not found as a significant contributor to the purchase behaviour of green products in Pakistan. The study concluded that companies should consider consumer perceived values to ensure their profitability and competitive advantage.

Keywords: *Consumer perceived value, Purchase behaviour, Green products.*

Introduction

The emergence of customer-centric concepts for marketing and strategic management carry decades of history for both academia and organisations. Meanwhile, the focal paradigm of customer-orientation based on value creation and importance, were extensively paid towards the perceived value for loyalty and profitability (Raza et al., 2018). This further links to improving brand management and sustaining a competitive advantage in a rapidly changing business scenario (Sánchez-Fernández & Iniesta-Bonillo, 2007). With the passage of time, customers' perceived values also changed from an utilitarian viewpoint to a more comprehensive and composite mix of perceived values, which include intrinsic and extrinsic aspects (Ko, 2016). In recent times, customers are paying a greater amount of attention

towards green purchasing. Hence, profit-oriented businesses found the motivation to ensure their directions towards green marketing, and environment-friendly products. However, the reduction of adverse effects can be possible by green purchasing, and green marketing (Awuni & Du, 2016).

In the recent past, numerous empirical research studies were conducted with a focus upon assessing the consumer perceived values as influencing factors upon purchase behaviour (El-Adly & Eid, 2017; Ponnampalani, Ponnampalani, Paul, & Paul, 2017). These studies summarised that generally perceived values have five dimensions, including epistemic value, conditional value, emotional value, functional value, and social value (Awuni & Du, 2016; Ko, 2016; Wu & Vasquez-Parraga, 2016; Yang, Chiang, & Cheng, 2014; Yen & Teng, 2015). However, these five dimensions were mainly manifested by Hartman in 1973, probing that consumers usually based their purchase intentions and decisions upon five kinds of values, namely epistemic, conditional, emotional, functional, and social values (Hartman, 1973; Sheth, Newman, & Gross, 1991). Furthermore, in the recent literature, these values were used enormously with the combination of other constructs to enrich an understanding about consumer behaviour (Raza et al., 2019). Whilst, some researchers made magnificent efforts to broaden the horizon of consumers' perceived values (Candan, Ünal, & Erciş, 2013; Finch, 2006; Park & Rabolt, 2009; Sánchez-Fernández & Iniesta-Bonillo, 2007; Yang et al., 2014). However, the current problem of global warming and climatic uncertainty challenges businesses to focus upon ecological concerns, which were not highlighted as such in marketing discipline. Recent literature has enlightened green marketing, and green buying behaviour. Nonetheless, the purchase behaviour of green products in developing countries still has a superlative research gap, which is yet to be breached. Therefore, the study has aimed to investigate the influence of five core dimensions of consumer perceived values, including emotional, conditional, social, functional, and epistemic values upon the consumers' purchase behaviour towards green products in Pakistan. Hence, the study emphasised upon answering the following research questions:

1. What is the impact of epistemic value upon consumer purchase behaviour?
2. What is the impact of emotional value upon consumer purchase behaviour?
3. What is the impact of social value upon consumer purchase behaviour?
4. What is the impact of functional value upon consumer purchase behaviour?
5. What is the impact of conditional value upon consumer purchase behaviour?

In a similar context, it is important to ensure that the current research may have a number of beneficiaries, including business managers, marketing personnel, researchers, practitioners, and academics. Due to global warming, and environmental uncertainty, companies and consumers emphasise categorically for ecological and environment-friendly products. To ensure the importance of ecological products and consumer behaviour towards green

products, a number of literature studies were available to enrich an understanding about consumer behaviour towards green products. The study contributes in terms of the perceived values for green products in a developing country. These values play a significant role in developing consumer behaviour, and purchase intention for green products. Hence, the study distinctly contributes to the literature and knowledge of researchers, academics, and practitioners towards understanding the consumer perceived values for the purchase of green products. Also, it helps to formulate and design a better marketing strategy. However, with all these contributions, the study also has its limitations. Specifically, it has a smaller sample size, which affects the generalisability of the results, and findings. Moreover, the study has used a comparatively simpler structural model, and no moderation or mediation was performed. Furthermore, the study also used the combined impact of both male and female consumers, when however, their perception and behaviour are different.

Theoretical Underpinnings and Hypotheses Development

The consumption value theory proposed by Sheth et al. (1991) is a broader theoretical framework which is comprised of five basic types of values: functional value, social value, conditional value, epistemic value, and emotional value. Moreover, the theory proposes that these five dimensions of consumer perceived values play a significant role in developing the purchase behaviour towards the choice, and purchase of a product or service (Park & Rabolt, 2009; Pope, 2001; Sheth et al., 1991; Sweeney & Soutar, 2001). The core concept behind such consumer behaviour was explored by Zeithaml (1988), stipulating that the utility delivery by the products and services are foundations to the consumer that derive them to their choice or purchase behaviour. There is an intrinsic utility associated with the products and services (Sánchez-Fernández & Iniesta-Bonillo, 2007). However, Hartman (1973) provided that intrinsic values basically deals with the utilitarian aspects of the product or service, such as the functional, conditional or epistemic values. Meanwhile, extrinsic values are comprised with emotional aspects, usually emotional values, and social values (Hartman, 1973; Sánchez-Fernández & Iniesta-Bonillo, 2007). Therefore, it has been established that these intrinsic and extrinsic aspects of consumer perceived values comprehensively devise purchase behaviour.

In this regard, the functional value relates to the capacity of a market choice to satisfy utilitarian or physical purposes. Alternatives possess a functional value by possession of the salient attributes, including price (Finch, 2006). However, in the recent past, a number of studies have been published in regards to the consumer perceived behaviour and emphasizing that functional value causes purchase behaviour in a positive and significant manner. Basically, consumers prefer to purchase such products that benefit them and fulfil their desires and give sufficient utility to them (El-Adly & Eid, 2017; Ko, 2016; Wu & Vasquez-Parraga, 2016). Therefore, the study hypothesised the following:

H1: The functional value has a significant influence upon the consumers' purchase behaviour.

Similarly, social value exists when a decision becomes associated with positively perceived social consequences or groups. Buyers driven by social values make marketplace choices that convey an image congruent with the norms of reference groups to which they belong or aspire (Finch, 2006). In this regard, past literature has summarised that social value, as part of the extrinsic dimension of Hartman (1973), plays an important role in consumers' purchase behaviour. These studies have proven that social value leads to a greater social cognition and behavioural development that eventually helps to devise purchase behaviour towards a particular product or service (Gonçalves, Lourenço, & Silva, 2016; Ko, 2016; Wu & Vasquez-Parraga, 2016). Thus, the following hypothesis is made:

H2: The social value has a significant influence upon the consumers' purchase behaviour.

Furthermore, emotional value is often associated with the evaluation of aesthetic alternatives. The choices driven by emotional values are made for their ability to arouse the desired emotions or feelings. The choices of an aesthetic nature can be heavily influenced by the ability of the choice to produce specific feelings (Finch, 2006). However, past studies have suggested that emotional values are intrinsically attached with the product or service. It basically links consumers' feeling and emotions with the characteristics of the product or service that help to drive their purchase behaviour towards that product or service. In this way, past literature has emphasised upon the significant relationship between the emotional value, and the purchase behaviour of the consumer towards a particular product or service, (Gonçalves et al., 2016; Ko, 2016; Yang et al., 2014; Yen & Teng, 2015).

H3: The social value has a significant influence upon the consumers' purchase behaviour.

In addition, the epistemic value pertains to alternatives chosen because of their ability to arouse curiosity, provide novelty or satisfy one's desire for knowledge. Alternatives acquire an epistemic value because they have the capacity to provide the buyer with something new or different (Finch, 2006). In the last few years, research has stressed upon the importance of the epistemic values any product or service acquires, and it can also be perceived by the consumers as well (El-Adly & Eid, 2017; Ponnamm et al., 2017). As posited by Finch (2006), epistemic values are somewhat related to alternatives, and therefore, have a degree of higher utility than others or may have a better quality or any other benefit for consumers (Hartman, 1973; Sheth et al., 1991). Therefore, it also influences purchase behaviour in a constructive manner (Awuni & Du, 2016; Gonçalves et al., 2016; Ko, 2016; Yang et al., 2014). The following hypothesis has been derived from the empirical and theoretical foundations.

H4: The epistemic value has a significant influence upon the consumers' purchase behaviour.

Moreover, the conditional value drives market choices when the particular situation faced by the buyer alters typical behaviours. That is, the benefits associated with each alternative are contingent on the situation or the set of circumstances confronting the consumer (Finch, 2006). This helps to understand the importance of conditional values, as emphasised upon by numerous past literature (Gonçalves et al., 2016; Ponnampalani et al., 2017; Wu & Vasquez-Parraga, 2016; Yang et al., 2014). These studies focussed on assessing the value propositions which are generally looked for in any product or service while purchasing it. The conditional value may cause the purchase behaviour in any particular condition or circumstances (Raza et al., 2020), but it has a significant influence on developing the purchase behaviour. Therefore, it has been manifested by the theoretical and empirical findings that the conditional value has a significant influence upon consumer purchase behaviour (Awuni & Du, 2016; El-Adly & Eid, 2017; Ko, 2016; Yen & Teng, 2015), as hypothesized below.

H5: The conditional value has a significant influence upon the consumers' purchase behaviour.

Empirical Reviews

Yang et al. (2014) have studied the impact of customer value, and customer roles on social media. The objective of this study was to analyse the customer value by identifying the customer roles and their influence on customer behaviour. The study investigates the specific objective by implementing a qualitative research design. The customer behaviour, and customer roles on social media were investigated for the travel industry. A conceptual framework with four quadrants was constructed to examine the specific objective. An explorer, co-developer, auditor, and promoter comprised the four quadrants of the conceptual framework. From the results, it has been examined that the behaviour of an online user is displayed into four categories, such as inquiry, clarification, opinion provision, and proposal. On the other hand, the results have revealed that online user pre-service behaviour is grouped into four categories, including complaint, notice, and referral and sharing. It has been examined that the participation towards online activities of a customer is driven through information inquiry. The use of an altruistic behaviour allows a customer to produce useful content for peer companions before service consumption. On the other hand, the online activities of an organisation is ruined from the major appalling factor, complaint. It has been concluded that a customer thus obtains both expressive, and functional value from an online activity.

Awuni and Du (2016) have studied sustainable consumption in Chinese cities with respect to examining the antecedents of the green purchasing intentions of young adults. The

quantitative study collected information from the four cities of Wuxi, Zhenjiang, Nanjing, and Suzhou. Three hundred and nine participants were included in this study to obtain responses regarding functional, social, emotional, and conditional values. The obtained data was measured using a structural equation modelling analysis. The results indicated that there was significant evidence of consumption values' influence upon green purchasing intentions. In addition, the purchasing decisions of young adults regarding green products are significantly associated from the dimensions of consumption values. On the contrary, it has been evident that the functional value is not positively associated to green purchasing intention. Moreover, there was a significant and positive influence of social values upon the green purchasing intentions of young adults. From the results, it indicated that the social needs, and self-image of young adults influence the formation of favourable purchasing intentions towards green products. Therefore, was concluded that young adult consumers are associated to environmental dilemmas, and mostly consider the green products' purchase in order to enhance the environment.

Ponnam et al. (2017) have studied the relative importance of service value by customer relationship stages. The objective of this study was to empirically sketch the assumption regarding the nature of the service value anticipated in the distinct stages of the relationship. The study examined the customer service value dimensions towards Indian retail banking psychometrically. The PERMAP software was used to calculate the relationship stages of the customer service value dimensions. In addition, the one-way ANOVA method was implemented for each value dimension, in order to validate the PERMAP solution. From the results, it was observed that the customer intimacy, service quality, perceived sacrifice, operational excellence, and product leadership were the significant service value dimensions pertinent to the Indian banking context. Other value dimensions exhibit a variation in importance over time, as it was empirically proven for service quality, and operational excellence. In addition, the results revealed that the tangible value dimensions are valued by the customer in the early stages of the relationship, whereas the intangible dimensions are valued in the advanced stages of the relationship. Therefore, it has been concluded that the fundamental role of the tangible value dimensions could be ascertained in framing the service value throughout the early stages of the relationship, and the intangible value dimensions in the advanced stages of the relationship.

El-Adly and Eid (2017) have studied the dimensions of the perceived value of malls from the perspective of Muslim shoppers. The objective of the study was to identify the perceived value constructs of shopping malls from the perspective of Muslim customers. Moreover, the secondary objective of this study was to investigate the effect of these dimensions on behavioural consequences. A scale of perceived value was constructed with respect to the multi-dimensional procedure and on a sample of 329 Muslim mall shoppers in the United Arab Emirates. These constructs were measured by means of exploratory factor analysis.

From the results, it was revealed that a scale of perceived value is constructed by the means of the mall shopper's religion. The shopping experience of Muslim shoppers has been evaluated from the affective and cognitive values. On the other hand, the study evaluated that there was a significant impact of MALLVAL upon behavioural consequences, which include the recommendation of the mall to others, and interest to endure shopping. Therefore, the results indicated that the authenticate shopping environment of Muslim shoppers is constructed and maintained through the traditional aspects of mall value.

Gonçalves et al. (2016) have studied green buying behaviour, and the theory of consumption values by means of a fuzzy-set approach. The objective of this study was to examine the extent of consumption values' affect on green buying behaviour. A convenience and snowball sampling was used to examine the responses of 197 respondents. In order to measure these responses, a qualitative comparative analysis was adopted in this study. From the results, it was identified that the prediction of green buying is essentially, and sufficiently revealed from the functional value. On the other hand, the emotional, conditional, and social values are included in the causal recipes that form the functional value of customers. It has been assumed that the emotional, social, and conditional values are necessary to be associated with the functional value. The results reveal a higher consistency in relation to the presence of emotional, and functional values. It was examined that the offer of companies has to stimulate positive feelings in the emotional value, and with respect to quality, and desirable prices. In addition, the results have revealed another significant association of the social consequences or reference groups, along with the emotional status, and perceptions of the offer.

Yen and Teng (2015) have studied the relationship between celebrity involvement, perceived value, and behavioural intentions. The objective of this study was to examine the association between behavioural intentions, and celebrity involvement with respect to the role of perceived value. An online survey was conducted to collect the data from media-induced tourism. The data was collected from Yahoo's Korean drama discussion board and KoreaStar. In order to measure the constructs, a post-evaluation design was adopted in this study. A total of 382 participants were included to examine the relationship between celebrity involvement, and behavioural intentions with respect to perceived value. Descriptive analyses, confirmatory factor analysis, and multiple regression analysis were included in the study for data analysis. From the results, it was identified that there was a significant and positive impact of celebrity involvement upon the behavioural intentions of the participants. In addition, the relationship between the behavioural intentions, and celebrity involvement was mediated through the perceived value of tourists. Thereby, it has been examined that the association of celebrity involvement with behavioural intentions is driven through the perceived value of travel experiences. From the results, it has been examined that there was a positive association of celebrity involvement to behavioural intentions, with respect to

Taiwanese residents. Therefore, it has been concluded that celebrity involvement acts as a mediator for examining behavioural intentions, and the perceived value of customers.

Sánchez-Fernández and Iniesta-Bonillo (2007) have studied the concept of perceived value systematically. Thus, the objective of this paper was to present a systematic review on the conceptualisation of perceived value. The study examined the assorted school of thoughts present in the subject literature and determined their major contributions and restrictions. The study presented that simplified, and complex understandings of the concept are contributed significantly from both unidimensional, and multidimensional models of value. In addition, the study examined that the association between a consumer and a product is implied from the notion of perceived value. Moreover, the study revealed that the concept of perceived value is associated to the virtue of its situational, personal, and comparative nature. On the other hand, it has been examined that the perceived value is perceptual, preferential, and cognitive-affective in nature. Additionally, the systematic review presented that consumer preferences and market choices are subjected with respect to utilitarian values. This perception is approached from the neoclassical economic theory, possessing the rational choices of consumers for selecting a maximum utility, while constraining by prices, and income. It was concluded that the economic, social, hedonic, and altruistic components of perceived value are comprised in assorted multidimensional approaches.

Williams and Soutar (2000) have studied the dimensions of customer value and the tourism experience. The objective of this study was to examine number of perceived value dimensions for a tourism consumption experience. A qualitative research design was implemented in this study to measure the customer perception in relation to the perceived value dimensions. Four focus groups were undertaken in this study, comprising between eight and 12 consumers in each group. The triangulation strategy was used to evaluate the experiences of participants. It was indicated from the results that the functional value contributes essentially to the value perceptions of consumers. In addition, these functional values ascertained a positive influence on the customer choice behaviour for tourism products and services from a marketing perspective. On the other hand, in terms of the service quality, received functional value was also significant in the post-tour value responses. Moreover, the results found a critical association between the consumers, and the environment for tour guides. The levels of association between the environment, and consumers were specified by tour guides and therefore, they determine the consequences of fun and excitement throughout authentic restrictions. Thereby, it was concluded that different value dimensions are amalgamated from the value of a tourism experience.

Wu and Vasquez-Parraga (2016) studied the relationship between consumer needs and perceived product value. The objective of this study was to explore the fitting of consumer needs to the perceived product value by means of Apple and Samsung products. Moreover,

the secondary objective of this study was to examine the consumer specific needs by determining the specific needs of consumers. An exploratory factor analysis, and t-test were used to examine the perceived value of consumers with a 19-item measure scale. From the results, it was found that Apple users are more contended with their needs to be fulfilled compared to Samsung users being satisfied with Samsung products. In addition, it has been examined that the entertainment and communication needs are perceived more commonly by Apple users when focussing on the emotional value of Apple products. On the other hand, there was no ground evidence found from Samsung consumers towards the Samsung products. Therefore, it was concluded that the perceived feeling of needs being fulfilled by Apple products was much stronger among Apple users when compared to Samsung users. Moreover, the study further concluded that there is a significant relationship between the perceived product values, and the consumer needs.

Ko (2016) studied the effect of consumer value on the brand identification, and loyalty. The objective of this study was to analyse the effect of consumer value on the brand loyalty, and brand identification in the airline service industry. The quantitative study employed 283 participants to analyse the perception regarding perceived value, brand identification, and brand loyalty. The frequency of the data was analysed using the SPSS, and an examination of the research questions was made through structural equation modelling. The study found significant consequences from the obtained data. The results emphasised that there was a significant, and positive impact by consumer perceived value on brand identification. In addition, the conditional value, emotional value, social value, and epistemic value were the significant dimensions of the consumer perceived value. On the other hand, there was no significant, and positive evidence found for the impact of the functional value on the brand identification. In addition, the extent of the consumer value on the brand identification was shown in the order of social value, epistemic value, emotional value, and conditional value. Moreover, it was analysed that there was a significant, and positive impact regarding brand identification on the loyalty of consumers. Therefore, it was concluded that there were positive, and significant implications of consumer perceived value on the brand identification, and loyalty in the airline service industry.

Sanchez, Callarisa, Rodriguez, and Moliner (2006) have studied the perceived value of the purchase of a tourism product. The objective of this study was to develop the perceived value concept in a tourism sector by ascertaining a measurement scale of the perceived value of a purchase. In addition, the secondary objective of this study was to identify the affective, and cognitive dimensions. The qualitative study employed two focus groups from Madrid, Spain. The key variables included purchasing, and consumption packages. Moreover, the study employed a random sampling method to examine the quantitative results. The obtained data was analysed by using structural equation modelling. From the study, it was identified that the experience of consumption is not separated from the purchase experience but is evaluated



comprehensively. A fundamental role has been performed by the satisfaction, and loyalty upon the consumer behaviour. Moreover, the significant impact of the quality, and price was further signified on the behaviour of tourists, irrespective of integrating affective attributes, such as social value. The interaction of the participants was examined from the symbolic value of the tourism package. The study examined a significant association between satisfaction, and loyalty, and a post-purchase valuation. Therefore, it was concluded that a causal association exists between the perceived value, and satisfaction, and loyalty.

Research Method

The present study has used a quantitative research approach with an explanatory purpose, and correlational method to assess five types of perceived values towards the purchase behaviour of green products in Pakistan. The study gathered a total of 382 primary sample responses using a convenience sampling method, and survey questionnaire adopted from different published sources, including Candan et al. (2013); Finch (2006); and Lee, Kim, Lee, and Kim (2002). The study has also used statistical estimation for the sample size calculation by using an online sample size calculator. With the anticipated effect size of 0.04, and the statistical power as 85 per cent at a probability level of five per cent, a total of a 364 minimum sample size was found. Further, the study has used second generation statistical techniques for data analysis using the Covariance-Based Structural Equation Modelling (CB-SEM) via the IBM SPSS-AMOS software. The study also used exploratory factor analysis, reliability analysis, confirmatory factor analysis, and path analysis as major data exploration, and analysis techniques.

Data Analysis

Following Table 1 shows the descriptive statistics of the respondents' profile.

Table 1: Descriptive statistics of the respondents' profile

Descriptive Statistics (N = 382)			
		Frequency	Percent
Gender	Male	269	70.4
	Female	113	29.6
Age Group	18–25 years	178	46.6
	26–30 years	131	34.3
	31–35 years	63	16.5
	36 or more years	10	2.6
Qualification	Intermediate/A levels	30	7.9
	Under Graduate	171	44.8
	Graduate	132	34.6
	Masters	49	12.8
Monthly Income (PKR)	15,000–25,000	137	35.9
	25,001–35,000	87	22.8
	35,001–45,000	83	21.7
	Above 45,000	75	19.6

Data Screening

In order to remove the outliers from the final data, a data screening procedure was adopted. Under this procedure, 20 outliers were removed from the total data of 402 responses, hence, the final data of 382 responses remains. These 382 responses were further used to estimate the exploratory factor analysis.

Exploratory Factor Analysis

In order to factorise the entire data into the respective components, an exploratory factor analysis has been employed in the study. Table 2 presents the estimates of the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, and Bartlett's tests. Whereas, Table 3 presents the rotated component matrix, the reliability of each variable, and the total variance explained by the exploratory factor analysis.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.844
Bartlett's Test of Sphericity	Approx. Chi-Square	9624.564
	Df	496
	Sig.	0.000

The results of the KMO and Bartlett's test showed that 84.4 per cent of the sample data was found to be adequate for factor analysis with a significance value of less than 0.05. Hence, it has been clearly proven that the sample data for exploratory factor analysis has been sufficient and provides significant components, as estimated in the rotated component matrix.

Table 3: Exploratory Factor Analysis

	Component					
	1	2	3	4	5	6
EV4	0.872					
EV5	0.869					
EV6	0.861					
EV3	0.859					
EV8	0.831					
EV7	0.805					
EV2	0.724					
EV1	0.669					
ITU1		0.862				
ITU4		0.835				
ITU5		0.820				
ITU3		0.802				
ITU2		0.778				
CV1			0.881			
CV4			0.874			
CV2			0.866			
CV5			0.858			
CV3			0.697			
SV2				0.824		
SV3				0.820		
SV4				0.812		
SV1				0.799		
SV5				0.777		
EP2					0.915	
EP3					0.867	
EP1					0.840	
EP4					0.748	
EP5					0.737	
FV3						0.882
FV4						0.863
FV2						0.780

FV5						0.731
Reliability	0.940	0.915	0.898	0.889	0.876	0.897
Eigen Values	5.687	3.818	3.603	3.596	3.426	2.988
% of Variance	17.773	11.930	11.258	11.238	10.706	9.338
Cumulative %	17.773	29.703	40.961	52.199	62.905	72.243

As the results of the exploratory factor analysis provided in the above tables show, there are six components with eight items in the first component, five items in the second component, five items in the third component, five items in the fourth component, five items in the fifth component, and four items in the sixth component, with the cumulative percentage of variance as extracted from the total variance explained at 72.24 per cent. Moreover, the reliability of each component, including 94 per cent for emotional values, 91.5 per cent for purchase behaviour, 89.8 per cent for conditional values, 88.9 per cent for social values, 87.6 per cent for epistemic values, and 89.7 per cent for functional values. In addition, the overall reliability of the factors loaded in the exploratory factor analysis has been found at 0.817. It was also noted that Abdul Hamid, Mustafa, Idris, Abdullah, and Suradi (2011) suggested that the reliability value should be greater than 0.70, and in present study, this limit for reliability acceptance has been exceeded.

Confirmatory Factor Analysis

In confirmatory factor analysis, the aim is to validate the constructs of the study in accordance with the items of the data collection instrument. The construct validity can be achieved, as the correlation among the items of the same construct has proven to be relatively high. In this regard, the following Table 4 provides the estimates of the Goodness-of-Fit of CFA.

Table 4: Goodness-of-Fit (CFA)

CMIN/DF	P-Value	GFI	AGFI	TLI	CFI	RMSEA
3.889	0.000	0.789	0.751	0.848	0.863	0.087

The Goodness-of-Fit shows that the CMIN/DF has a value of 3.889, as it is less than the 5.0 value suggested by Afthanorhan (2013). Moreover, the GFI value should be greater than 0.90, and was not achieved by the present study (GFI = 0.789). The RMSEA value should be less than 0.08, and was also not achieved by the current study (RMSEA = 0.087). However, the acceptance range of the RMSEA value between 0.05 to 1.00 has been achieved by the study. In addition, the AGFI value (0.751) has also not exceeded the recommended limit of 0.90 in the present study. The TLI has a recommended limit of greater than 0.90, which also has not been achieved by the present model, i.e. TLI = 0.848. Similarly, the CFI for the present model has been found at 0.863, which has not exceeded the recommended limit of

0.90, as suggested by Afthanorhan (2013). Thus, on the basis of the collected data, the present model has not achieved the Goodness-of-Fit, as per the recommended limits for each model-fit parameters.

After testing the Goodness-of-Fit for the present study, the further estimation of the validity of the data collection instrument has been conducted through the convergent, and discriminant validity. Therefore, Table 5 presents the combined results of the convergent, and discriminant validity testing for the data collection instrument used in the present study.

Table 5: Convergent and Discriminant Validity

	CR	AVE	EP	EV	FV	SV	ITU	CV
EP	0.886	0.612	0.783					
EV	0.940	0.665	0.087	0.815				
FV	0.901	0.697	0.025	0.138	0.835			
SV	0.889	0.616	0.070	0.027	0.550	0.785		
ITU	0.916	0.687	0.023	0.533	0.187	-0.015	0.829	
CV	0.904	0.657	0.050	0.037	0.205	0.129	-0.059	0.811

As suggested by Afthanorhan (2013), the convergent validity is considered to be achieved if the value of the average variance extracted (AVE) exceeds the recommended limit of 0.50. Hence, in the present study, the convergent validity has been achieved as all the AVE values of the study variables have values greater than 0.50. Moreover, the construct reliability has a recommended limit of 0.80 or above, and therefore, in the present model, all the variables have greater values of construct reliability (CR) than the recommended limit of 0.80. Additionally, the discriminant validity is considered to be achieved if all the correlation values are less than the square root of the AVE for the respective variable. In this regard, the present model has achieved the discriminant validity, as the square root of the AVE of each variable has greater values than the other variables of the model. More specifically, the square root of each AVE is 0.783, 0.815, 0.835, 0.785, 0.829, and 0.811, respective to the EP, EV, FV, SV, ITU, and CV particularly. These values are higher than the other respective values, in particular, the columns. Thus, the discriminant validity for the data collection instrument was achieved, as per the suggested guidelines of Afthanorhan (2013).

Path Analysis

In the path analysis, the model has been estimated in relation to each variable and in accordance with the conceptual framework of the study. The path analysis provides the

association of the variables regarding the dependent and independent characteristics. Before reporting the path analysis, it is important to provide the Goodness-of-Fit of the Structural Equation Modelling (SEM), as provided in Table 6.

Table 6: Goodness-of-Fit (SEM)

CMIN/DF	P-Value	GFI	AGFI	TLI	CFI	RMSEA
2.036	0.000	0.882	0.858	0.946	0.952	0.052

The Goodness-of-Fit for SEM has also achieved fitness indices that provide adequate values compared to the recommended values suggested by Afthanorhan (2013). This includes that the present SEM model has a CMIN/DF value less than is recommended (5.00). The TLI has also achieved the recommended limit of less than 0.90, whereas, the CFI also exceeds the acceptable limit of less than 0.90. Lastly, the RMSEA should have a value of less than 0.08. Thus, the present model for the SEM has met the model-fit criteria.

Additionally, the results of the path analysis are provided in Table 7, showing the association of the independent variables, including the functional values, social values, conditional values, emotional values, and epistemic values upon the dependent variable, i.e. the purchase behaviour of green products in Pakistan. The significance of the relationship in the following path analysis has been estimated on $p \leq 0.10$, and the association of the variables with a significance value ≤ 0.10 , have been considered as significantly impactful on the dependent variable.

Table 7: Path Analysis

Path	Estimate	S.E.	P value
Emotional Values → Purchase Behaviour	0.483	0.050	0.000*
Epistemic Values → Purchase Behaviour	0.005	0.075	0.949
Conditional Values → Purchase Behaviour	0.090	0.039	0.022*
Social Values → Purchase Behaviour	0.123	0.075	0.098*
Functional Values → Purchase Behaviour	0.240	0.055	0.000*
R-Square: 0.321; * $p < 0.10$			

It has been shown by the path analysis of the present study that emotional values have a significantly positive association with the purchase behaviour towards green products in Pakistan. The estimate shows that an increase in one unit of emotional values causes the increase of 0.483 units of purchase behaviour towards green products in Pakistan. Similarly, functional values have also been found to have a significantly positive association with the purchase behaviour towards green products in Pakistan, as the estimate of the relationship shows that an increase in one unit of functional values causes the increase of 0.240 units in the purchase behaviour towards green products in Pakistan. In addition, conditional values,

and social values also have a significantly positive influence upon the purchase behaviour towards green products in Pakistan, and the estimates of both variables were 0.090, and 0.123, respectively. These estimates outline that an increase in one unit of conditional values causes an increase of purchase behaviour towards green products by 0.090 units, whereas, a similar association exists between social values, and the purchase behaviour towards green products, with the estimation of one unit increase in social values causing the purchase behaviour towards green products to be increased by 0.123 units. However, epistemic values were found to have insignificant effects upon the purchase behaviour towards green products, as the significance value of the relationship between epistemic values, and the purchase behaviour towards green products in Pakistan have a greater than 0.10 limit.

Conclusion and Recommendations

In the real-world scenario, consumers are well-aware of their values, and their perception towards ecological aspects, and eco-friendly products. In addition, importance is paid to perform their social responsibilities towards global warming, and undoubtedly, consumer perceived values play an important role in developing their purchase behaviour towards green products. Meanwhile, companies are also making great efforts to become ecological-friendly, and are planning to produce recycled, remanufactured, and re-usable products to avoid environmental, and ecological harms. The present study has attempted to enrich the pertaining knowledge of consumer perceived values towards the purchase behaviour of green products in Pakistan. In respect to the perceived values, five comprehensive types of consumer values were taken into consideration knowingly: emotional value, social value, epistemic value, functional value, and conditional value. Hence, in light of the results, and findings of the study, it has been concluded that consumer values typically play a driving role in consumers' purchase behaviour. The study has clearly highlighted that perceived values play an important role in developing consumers' purchase behaviour towards green products in Pakistan. However, the emotional, and functional values influence purchase behaviour most strongly, whilst, the conditional value plays the least important role. However, the epistemic value did not influence the purchase behaviour of consumers towards green products. Therefore, the results, and findings of the study lead to certain recommendations and practical implications for green product manufacturers. Of the utmost importance, green products should be promoted in terms of not only providing less harms to the environment, and climate, but also, taking good care of social responsibility. Global warming should be taken into consideration while promoting and advertising eco-friendly products. Furthermore, the study also recommends that the functionality, efficacy, and quality of the product should be made consistent while propagating it green or ecological. The functional value of the consumer should not be declined in any way, and thus, the functional efficacy of the product should be improved by the better means of production, and effective methodology for ecological production. However, the social impact of the product should be made visibly



strong. Any cognitive dissonance should be minimised by taking an efficient marketing strategy, and brand image.

In addition to the practical implications, the study also suggests that future researchers should focus on developing a comprehensive structural model to enrich the consumer value propositions, and socio-cultural dimensions towards green products. Moreover, the service quality, and product excellence should also be taken into consideration in the future. Lastly, the study also proposes multi-level models, the mediation of brand management concepts, and tools and techniques, whilst the moderation of gender should be taken into consideration.

REFERENCES

- Abdul Hamid, M., Mustafa, Z., Idris, F., Abdullah, M., & Suradi, N. M. (2011). Measuring value-based productivity: A confirmatory factor analytic (cfa) approach. *International Journal of Business and Social Science*, 2(6), 85-93.
- Afthanorhan, W. (2013). A comparison of partial least square structural equation modeling (pls-sem) and covariance based structural equation modeling (cb-sem) for confirmatory factor analysis. *International Journal of Engineering Science and Innovative Technology*, 2(5), 198-205.
- Awuni, J. A., & Du, J. (2016). Sustainable consumption in chinese cities: Green purchasing intentions of young adults based on the theory of consumption values. *Sustainable Development*, 24(2), 124-135.
- Candan, B., Ünal, S., & Erciş, A. (2013). Analysing the relationship between consumption values and brand loyalty of young people: A study on personal care products. *Management*, 29, 46.
- El-Adly, M. I., & Eid, R. (2017). Dimensions of the perceived value of malls: Muslim shoppers' perspective. *International Journal of Retail & Distribution Management*, 45(1), 40-56.
- Finch, J. E. (2006). The impact of personal consumption values and beliefs on organic food purchase behavior. *Journal of Food Products Marketing*, 11(4), 63-76.
- Gonçalves, H. M., Lourenço, T. F., & Silva, G. M. (2016). Green buying behavior and the theory of consumption values: A fuzzy-set approach. *Journal of business research*, 69(4), 1484-1491.
- Hartman, R. S. (1973). The hartman value profile (hvp): Manual of interpretation. *Research Concepts, Muskegon, MI*.
- Ko, S. H. (2016). Effect of consumer value on the brand identification and loyalty in airline service. *Indian Journal of Science and Technology*, 9(26).
- Lee, Y., Kim, J., Lee, I., & Kim, H. (2002). A cross-cultural study on the value structure of mobile internet usage: Comparison between korea and japan. *J. Electron. Commerce Res.*, 3(4), 227-239.
- Park, H. J., & Rabolt, N. J. (2009). Cultural value, consumption value, and global brand image: A cross-national study. *Psychology & Marketing*, 26(8), 714-735.

- Ponnam, A., Ponnam, A., Paul, R., & Paul, R. (2017). Relative importance of service value by customer relationship stages: Evidence from the Indian retail banking. *International Journal of Bank Marketing*, 35(2), 319-334.
- Pope, N. (2001). An examination of the use of peer rating for formative assessment in the context of the theory of consumption values. *Assessment & Evaluation in Higher Education*, 26(3), 235-246.
- Raza, M., Frooghi, R., Abd Rani, S. H. B., & Qureshi, M. A. (2018). Impact of brand equity drivers on purchase intention: A moderating effect of entrepreneurial marketing. *South Asian Journal of Management Sciences*, 12(1), 69-92.
- Raza, M., Frooghi, R., & Aziz, A. (2020). Determinants of compulsive buying behaviour in apparel industry of Pakistan. *International Journal of Innovation, Creativity and Change*, 11(11), 172-189.
- Raza, M., Isa, N. M., & Abd Rani, S. H. B. (2019). Effect of celebrity-endorsed advertisement and entrepreneurial marketing on purchase behavior of smartphone consumers in Pakistan. *Journal of Management Sciences*, 6(1), 15-29.
- Sánchez-Fernández, R., & Iniesta-Bonillo, M. Á. (2007). The concept of perceived value: A systematic review of the research. *Marketing theory*, 7(4), 427-451.
- Sanchez, J., Callarisa, L., Rodriguez, R. M., & Moliner, M. A. (2006). Perceived value of the purchase of a tourism product. *Tourism management*, 27(3), 394-409.
- Sheth, J. N., Newman, B. I., & Gross, B. L. (1991). Why we buy what we buy: A theory of consumption values. *Journal of business research*, 22(2), 159-170.
- Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale. *Journal of retailing*, 77(2), 203-220.
- Williams, P., & Soutar, G. N. (2000). *Dimensions of customer value and the tourism experience: An exploratory study*. Paper presented at the Australian and New Zealand Marketing Academy Conference.
- Wu, Y.-C., & Vasquez-Parraga, A. Z. (2016). Fitting consumer needs to perceived product value: The example of Apple versus Samsung products. *Atlantic Marketing Journal*, 5(2), 13.
- Yang, M.-H., Chiang, C.-T., & Cheng, Y.-Y. (2014). Customer value and customer roles on social media: A travel agency case study. *International Journal of Business and Information*, 9(4), 411.



Yen, C.-H., & Teng, H.-Y. (2015). Celebrity involvement, perceived value, and behavioral intentions in popular media-induced tourism. *Journal of Hospitality & Tourism Research*, 39(2), 225-244.

Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *The Journal of marketing*, 2-22.