

FACTORS AFFECTING BUYING BEHAVIOR OF ECO-FRIENDLY PRODUCTS IN NEPAL

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ABSTRACT

The purpose of this study is to investigate the variables influencing Nepalese consumers' purchasing decisions for eco-friendly goods. Using judgmental sampling, 384 consumers of green products provided the key data. The data analysis was carried out utilizing software such as SPSS and SMART PLS 4. Model fit was attained by the use of confirmatory factor analysis. The parameters were estimated and research hypotheses were tested using structural equation modeling. This study discovered that Nepalese consumers' purchasing decisions for eco-friendly products were significantly influenced by a number of criteria, including product availability, price, quality, features, and environmental consciousness. The study's conclusions will assist green marketers in creating creative approaches to draw clients and boost revenue.

Keywords: Environmental Awareness, Green Product, Product Availability, Product Features, Product Price, Product Quality

1. INTRODUCTION

A green product is one that is non-toxic, recyclable, and composed of organic materials and components that have a good effect on both the environment and

human health. According to Boztepe (2012), green consumers are those who value environmental welfare, adopt eco-friendly practices, and favor buying eco-friendly goods. Consumers are increasingly inclined to obtain and use such products (Chen, 2009), as they are considered safer for human health, the atmosphere, and the environment (Horbach et al., 2012). Environmentally conscious consumers assess the impact of product use on environmental degradation and take measures to minimize it (Tiwari et al., 2011). Green product purchases are also more common among those who care more about the environment (Kim & Choi, 2005).

Numerous research have looked into how consumers feel and act when it comes to green products. Unnamalai (2016) found a strong correlation between consumer attitudes and buying habits, emphasizing that favorable views toward eco-friendly fast-moving consumer goods are associated with buying habits. Prabusankar (2016) revealed that factors such as safety, health benefits, quality, and worthiness positively influence consumers' purchase intentions for eco-friendly products. These consumers prefer purchasing green products when companies offer them at reasonable prices and maintain high-quality standards. Furthermore, they tend to buy green products from well-known and trusted brands (Suki, 2013). According to Elkington (1994), green customers steer clear of goods that might pose a health risk or seriously harm the environment during production. Green consumption has emerged as a result of the prudent use and conservation of natural resources (Solomon et al., 2010).

As consumer attitudes and preferences become more environmentally sensitive (Sarigöllü, 2009), green products must maintain the same quality and performance as conventional products to reinforce green values and drive sales. The perceived value of green products can be of core importance in fostering purchase intention and building long-term customer relationships (Zhunang et al., 2010). This observation serves to improve repurchase intentions since customers heighten their product sustainability concern (Steenkamp & Geyskens, 2006). Wong et al. (2020) discovered that social values, environmental concerns, and health awareness substantially impact consumers' green purchase intention. Being environmentally friendly products become more popular, businesses are incorporating environmental concerns into their marketing strategies (Gam, 2011).

Though the research on green consumption has increased globally, the specific situation of developing nations such as Nepal introduces new opportunities and challenges that have been extensively researched. Though there has been increased global interest in green products, there is little research on consumer attitudes and

buying behavior in Nepal, especially in light of the nation's distinctive economic, social, and cultural circumstances the shape consumer choice. There are several reasons in Nepal why these products are still hampered by factors such as low consumer awareness, high price of environmentally friendly products, and the limited availability of these products.

Mukendi et al. (2020) emphasized the necessity of examining actual consumers of sustainable products instead of general consumers to gain a better understanding of their buying intentions. Sobuj et al. (2021) stated that green consumers take ecological aspects into account when making consumption choices, where consumptions is deemed to be green when consumers select eco-friendly and recyclable products (Choi & Johnson, 2019).

As studies demonstrate that individuals who possess knowledge about environmental problems and the advantages associated with environmental sustainability products are more likely to engage in eco-friendly purchasing (Kim & Choi, 2005; Moser, 2015), additional research is necessary to determine how other factors, such as product quality, price, product features, availability, and environmental awareness purchasing decisions for green products within the context of Nepal product quality, price, product features, availability, and environmental awareness, influence buying decisions for eco-friendly products in the context of Nepal. The discussion above depicts that research concerning consumer perception and buying behavior toward eco-friendly products are of great significance.

The present study aims to study the determinants of consumers' purchasing behavior towards green products in Nepal. Particularly, it aims to study the effects of product quality, price, availability, product feature and eco-awareness on consumers' buying behavior. The literature indicates that Nepalese consumers are ready to spend extra financial resources on green products (Aryal, 2008). In spite of this, the organic product development in Nepal is still at the introductory phase of the product life cycle (Bhatta et al., 2008). Due to the absence of sufficient research on this subject in Nepal, the present study attempts to bridge this research gap by examining consumer attitudes and purchasing behavior towards green products in the Nepalese market.

2. LITERATURE REVIEW

2.1 Consumer Buying Behavior and Environmental Awareness

Consumer purchasing behavior is affected by a multitude of factors, such as product quality, environmental issues, prices, availability, and particular product features. As the level of consumer environmental knowledge rises, so does the inclination to buy environmentally friendly commodities (Agyeman, 2014). Consumer behavior entails intellectual, emotive, and physical activities like selecting, buying, using, and disposing of products that meet their requirements (Kotler, 1999). Green consumers prioritize products that do not harm personal or public health, the environment, or natural resources (Elkington, 1994). Consumers with higher environmental consciousness are more likely to engage in green consumption and prefer sustainable products (Ottman, 1993; Soonthonsmai, 2007). Green purchase decisions are also influenced by consumers' willingness to balance sustainability with product quality and price (Bhatia & Jain, 2013).

2.2 Theoretical Foundation: Theory of Planned Behavior

The Theory of Planned Behavior (TPB) provides a strong framework for understanding eco-friendly consumer behavior. According to TPB, consumer purchasing decisions are shaped by attitudes, subjective norms, and perceived behavioral control (Bansal, 2002). This theory has been widely applied in behavioral research to analyze green purchasing patterns (King, 2003). Studies suggest that consumers with positive environmental attitudes are more likely to develop green purchase intentions and engage in sustainable consumption (Chekima et al., 2019; Liu et al., 2017). However, the attitude-behavior gap remains a challenge, as many consumers express environmental concerns but fail to translate them into actual purchasing behavior (Moser, 2015). Understanding the factors that bridge this gap is crucial for promoting sustainable consumption in Nepal.

2.3 Factors Influencing Eco-Friendly Product Purchases

Product attributes such as quality, price, and availability play a critical role in consumers' purchasing decisions. There is a strong positive relationship between eco-friendly product quality and consumer purchasing behavior (Pinto, 2017). Similarly, price sensitivity affects green purchasing decisions, as consumers are more likely to buy eco-friendly products if they perceive them to be affordable and cost-effective (Agyeman, 2014). Consumer demographics such as age, income, and education level significantly impact eco-friendly purchase behavior (Sachdev et al., 2014). Also, perceived brand trust, environmental concern, and corporate green

image positively influence green product adoption (Ali & Ahmad, 2016). Green purchase intention (GPI) is strongly linked to consumer attitudes and environmental knowledge (Ghouse et al., 2024). Perceived behavioral control, such as ease of access to green products, also plays a significant role in determining actual purchasing behavior (Kim & Lee, 2023).

2.3 Research Model and Research Hypothesis

Green purchasing behavior of consumers on environmental products is determined by numerous factors. Perceived price, quality of the product, and product features (D'Souza et al., 2007), levels of environmental awareness (Phau and Ong, 2007), and green marketing credibility (Thøgersen, 2000) are only a few of the factors that various researchers have found to affect consumers' buying behavior. A discussion was held on the different types of literature and how one construct relates to another. Based on this, the below research model is created.

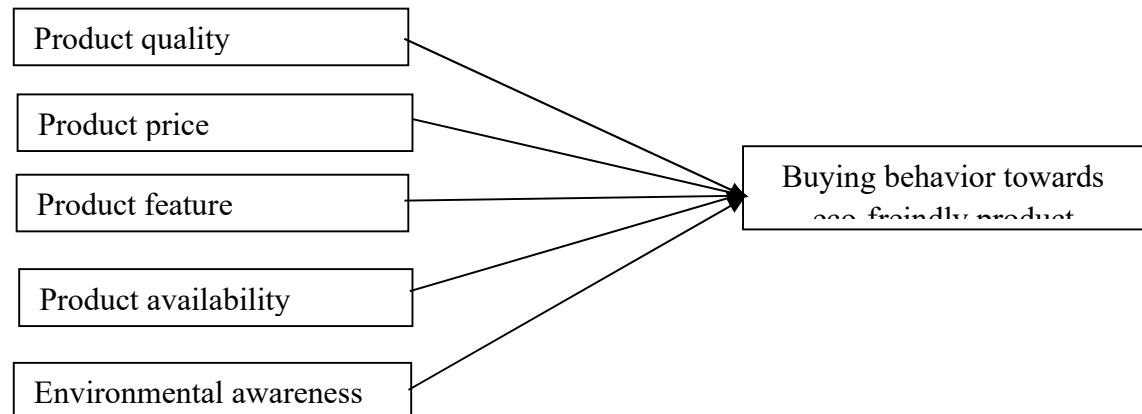


Fig. 1: *Research Model*

Source: D'Souza et al., (2007); Phau & Ong, (2007)

Product quality and consumer buying behavior towards eco-friendly products

The quality of eco-friendly products is impacted by consumer knowledge and trust in the quality of the products they intend to purchase (Soegoto, 2018). The green image, safety, and quality of the product should also be prioritized (Barbarossa & De Pelsmacker, 2016). D'Souza & Taghian (2005) noted that the enhancement of service, product quality, menu, and facilities has a positive impact on the perceived

value and satisfaction of consumers, thereby influencing positive consumption. Gadenne et al. (2011) categorized green products into the following categories: general green products, recycled paper products, products that are not tested on animals, environmentally friendly detergents, organically grown fruits and vegetables, ozone-friendly aerosols, and energy-efficient products. Customers' green buying intention and behavior are strongly and favorably influenced by product quality (Mondelaers et al., 2009; Smith & Paladino, 2010). Junior et al. (2019) showed that consumers hold positive attitudes and strong faith in green products, significantly affecting their purchasing intention. Product quality significantly impacts consumers' purchase intention (Mirabi et al., 2015). The perceived high quality of green products positively influences consumer green purchase behavior (Aertsens et al., 2011; Mondelaers et al., 2009). Based on the above review, the following hypothesis was proposed.

H₁: There is a significant effect of product quality on consumer buying behavior.

Product price and consumer buying behavior towards eco-friendly products

The product price has a significant effect on consumer buying behavior toward eco-friendly products (Jin & Keum, 2011). Consumers with strong environmental concerns are inclined to purchase green products, even when their prices exceed those of less eco-friendly alternatives (Bang et al., 2000). Lower pricing for green products incentivizes consumers' purchases (Boztepe, 2012). Consumers' price knowledge considerably impacts their purchasing decisions (Suki, 2013). Product pricing significantly influences customers' buying behavior (Mirabi et al., 2015). Product prices significantly impact the likelihood of consumers acquiring green items (Gan et al., 2008). Consumers exhibited a reduced propensity to acquire eco-friendly products when these items were priced higher. Based on the literature review, the following hypothesis was proposed.

H₂: There is a significant effect of product price on consumer buying behavior.

Product feature and consumer buying behavior towards eco-friendly products

The effectiveness of various product feature tactics significantly influences consumer buying behavior towards eco-friendly products (Batra & Sinha, 2000). The features of a product can significantly influence consumers' decisions regarding green products. Product features have a limited amount of time to influence the consumer's decision-making process (Dantas et al., 2004). Product features capture the consumer's attention and persuade the purchaser that they are

the most suitable option on the shelf (Rowan, 2000). Consumers employ multiple evaluative criteria when choosing suitable products to fulfill their consumption requirements (Chung et al., 2006). The purchasing decision or selection among items mostly relies on a combination of these features (Silayoi & Speece, 2004). Product features that consumers value include convenience, variety, choice, price, year-round availability, packaging, cleanliness, and freshness. Based on the literature review, the following hypothesis was proposed.

H₃: There is a significant effect of product features on consumer buying behavior.

Product availability and consumer buying behavior towards eco-friendly products

Availability refers to the ease or difficulty of obtaining or consuming a specific product (Aertsens et al., 2009). One of the criteria that can play a significant role in influencing consumers' decisions to purchase green products is the availability of eco-friendly products (Renko et al., 2011). The limited availability of a product adversely affects consumer intentions and behaviors regarding green purchases (Padeland Foster, 2005; Young et al., 2010). The accessibility of green products favorably affects green purchasing behavior (Vermeir & Verbeke, 2008). Product availability positively correlates with green purchasing intentions and behaviors (Tarkiainen & Sundqvist, 2005). The availability of green products has a significant effect on the buying behavior of green products (Sharaf & Perumal, 2018). Based on the literature review, the following hypothesis was proposed.

H₄: There is a significant effect of product availability on consumer buying behavior.

Environmental awareness and consumer buying behavior towards eco-friendly products

Green product awareness is the critical factor that influences consumers' green purchasing decisions (Siddique et al., 2018). Environmental knowledge has significant effects on consumer purchasing behavior (Sharma & Trivedi, 2016). Eco-friendly products and environmental awareness have a significant and positive correlation (Ishaswini & Datta, 2011). Environmental awareness positively influences consumer purchase behavior (Roberts, 1996). Environmental awareness and purchasing behavior have a positive and significant relationship (Crosby et al., 1981). Environmental awareness has significant effects on customers' green shopping habits (Kaufmann et al., 2012). Environmentally conscious behavior and

environmental awareness have a significant effect on buying behaviors (Mkik et al., 2017). Based on the literature review, the following hypothesis was proposed.

H₅: There is a significant effect of environmental awareness on consumer buying behavior.

3. RESEARCH METHODOLOGY

This study follows a positivist research philosophy and employs a quantitative approach to examine the factors influencing consumer buying behavior towards eco-friendly products. Descriptive and casual comparative research design were used. A cross-sectional research design was used to collect primary data through a structured questionnaire survey.

3.1 Population and Sample Selection

The study focuses on verified consumers of eco-friendly products in Kathmandu Valley. The target population consists of customers who have purchased and used eco-friendly products such as organic food, biodegradable packaging, reusable household items, and eco-friendly cosmetics. Respondents were selected from Udhami Ghar, major E-commerce platforms (Daraz and Hamrobazar), and leading supermarkets (Bhatbhateni Supermarket and Big Mart), all of which actively sell eco-friendly products. A sample size of 384 was determined using the Cochran (1977) formula, ensuring statistical adequacy. A pre-screening question was included in the survey to confirm respondents had purchased an eco-friendly product in the past six months. Judgmental sampling was used due to the lack of a comprehensive consumer database for eco-friendly product buyers in Nepal. This method ensured the inclusion of only relevant respondents, reducing the risk of obtaining data from individuals unfamiliar with green products.

3.2 Measurement of Variables

To operationalize consumer buying behavior, the dependent variable was measured using purchase frequency, brand-switching behavior towards green products, and likelihood of future eco-friendly purchases. Independent variables (product quality, product price, product features, product availability, and environmental awareness) were measured using Likert-scale items adapted from D'Souza et al. (2007) and Phau & Ong (2007), with modifications for the Nepalese market context.

3.3 Data Collection and Analysis

The data collection process involved anonymous online and in-person surveys to reduce social desirability bias, ensuring respondents provided honest opinions about their buying behavior. Data analysis was conducted using SPSS 25 and SMART PLS 4. Outlier responses were removed, and missing or unengaged data were handled before analysis. To ensure construct validity and reliability, Confirmatory Factor Analysis was conducted. The goodness-of-fit index was computed to confirm model adequacy (Awang, 2015). The study employed Structural Equation Modeling to test the research framework and hypotheses, evaluating the relationships between independent variables and consumer buying behavior. The internal consistency of measurement items was assessed using Cronbach's alpha, with all constructs exceeding the 0.7 threshold for reliability. Since the study relies on self-reported data, potential social desirability bias was mitigated by ensuring respondent anonymity and using neutral wording in questionnaire items.

3.4 Measurement Model

Confirmatory factor analysis was used to confirm the factors affecting (i.e., product quality, product price, product features, product availability, environmental awareness) and consumer buying behavior toward eco-friendly products in Nepal. SMART PLS 4 was used to conduct confirmatory factor analysis and determine model fit. First, all 40 measuring items were loaded for the respective 6 latent constructs. Out of 40 items, 11 items were removed one by one from the measurement model as they were loading less than 0.60 in their respective latent construct (Awang, 2015). The removed measuring items included four items from the latent construct product price. Similarly, the latent construct product price had three measuring items removed. Similarly, the latent constructs product feature and product availability each had one item removed. Likewise, two items from consumer buying behavior were removed as measuring items. Moreover, 16 responses were removed due to high outliers. As a result, a good model fit index was achieved.

3. RESULTS

Table 1. *Results of Factors Analysis, Construct Validity and Reliability*

Construct	Items	Factors Loading	Cronbach's alpha	Composite reliability (rho_c)	Average variance extracted
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		(AVE)			
Consumer Buying Behavior	CBB1	0.763	0.875	0.868	0.569
	CBB2	0.771			
	CBB3	0.759			
	CBB5	0.747			
	CBB7	0.732			
Product Quality	PQ3	0.754	0.749	0.753	0.505
	PQ4	0.753			
	PQ7	0.616			
Product Price	PP1	0.832	0.866	0.865	0.619
	PP2	0.860			
	PP5	0.707			
	PP6	0.737			
Product Feature	PF1	0.803	0.909	0.909	0.626
	PF2	0.822			
	PF3	0.745			
	PF4	0.843			
	PF5	0.732			
	PF6	0.797			
Product Availability	PA2	0.74	0.896	0.896	0.589
	PA3	0.777			
	PA4	0.817			

	PA5	0.758			
	PA7	0.745			
Environment					
Awareness	EA1	0.801	0.923	0.924	0.71
	EA2	0.729			
	EA3	0.894			
	EA4	0.910			
	EA5	0.868			
	PA1	0.766			

Table 2. *Model Fit Summary*

Model	Fit indices						
	CMNI/d f	GFI	CFI	TLI	SRMR	RMSEA A	Sig.
Final	3 to 5	>0.9	>0.9	>0.9	<0.8	<0.8	<0.05
measurement							
model	3.324	0.90	0.910	0.987	0.72	0.066	0.042

2

The model-fit indicators of structure model are P value = 0.042, CMNI/df = 3.324, GFI=0.902, CFI=0.910, TLI=0.987, SRMR=0.72, RMSEA=0.066, indicating that the model has acceptable model fitness. The model has R square is 0.624, which means that, 62.40 explain the consumer buying behaviors by the independent variables. Table 1 shows that the Cronbach Alpha values are between 0.749 and 0.923, greater than 0.70 for every construct. The standardized factor loading ranged from 0.616 to 0.910, which greater than 0.50 for each item. The composite reliability of constructs exceeded the greater than 0.70 (Hair et al., 2010). Similarly, the convergent validity of the constructs was estimated using the Average Variance Extracted, ranges from 0.505 to 0.710, above threshold value of 0.50 (Fornell & Larcker, 1981). Therefore, the scales used for this research have a

required construct reliability, convergent validity, composite reliability and convergent validity.

Table 2. *Results of Correlation*

	1	2	3	4	5	6
Consumer buying						
1) behavior	-					
2) Product quality	.281**	-				
3) Product price	.351**	.476**	-			
4) Product feature	.398**	.416**	.379**	-		
5) Product availability	.686**	.352**	.342**	.361**	-	
6) Environment awareness	.346**	.374**	.152**	.487**	.353**	-

** Correlation is significant at the 0.01 level (2-tailed).

Table 2 found that the relationship between consumer buying behaviors and product quality, product price, product feature, product availability and environment awareness are positive and significant.

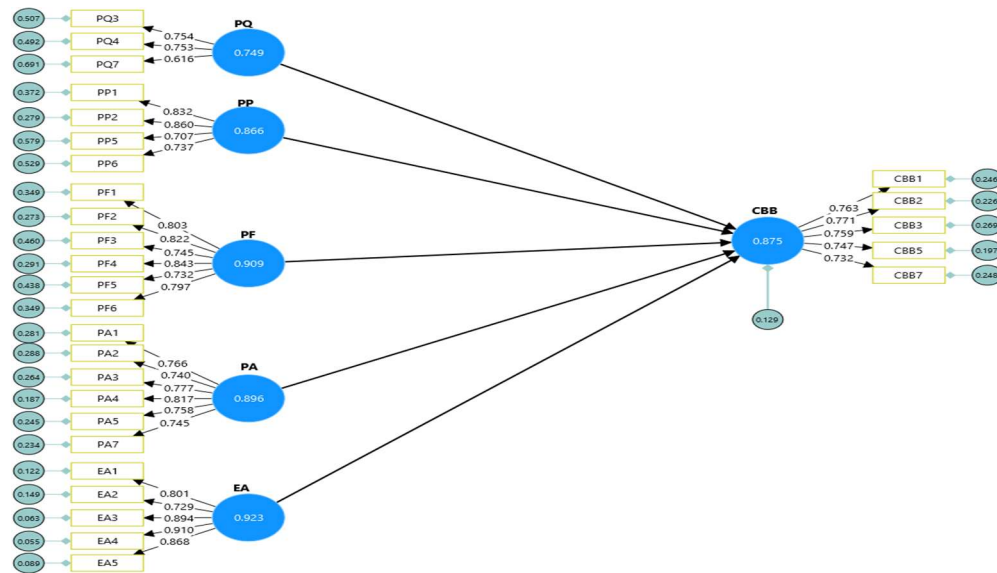


Fig. 2. Structural Model

Table 3. Factors Effects on Buying Behaviour of Eco-Friendly Products and Hypothesis Results

		Beta	Standard errors	T values	P values	Results
H1	PQ -> CBB	0.282	0.045	4.82	0.020	Accepted
H2	PF -> CBB	0.148	0.051	2.893	0.004	Accepted
H3	PP -> CBB	0.336	0.048	3.755	0.031	Accepted
H4	PA -> CBB	0.696	0.062	11.317	0.000	Accepted
H5	EA -> CBB	0.465	0.052	11.264	0.040	Accepted

Table 3 shows that the factors such as product quality, product price, product features, product availability and environment awareness have significant effects of consumer buying behavior towards eco-friendly product, which accepted hypothesis H1, H2, H3, H4 and H5.

5. DISCUSSION

The analysis of the factors influencing consumer buying behavior toward eco-friendly products provides valuable insights into how specific factors directly impact consumer purchasing decisions regarding green products. The study's results underline the significant positive effects of product quality, product price, product features, product availability, and environmental awareness on consumer buying behavior toward eco-friendly products in Nepal.

The results of this study align with prior research on the relationship between these factors and consumer buying behavior toward eco-friendly products in Nepal. As indicated in the literature, product quality, product price, product availability, product features, and environmental awareness significantly affect purchasing decisions (Agyeman, 2014; Mirabi et al., 2015; Suki, 2013). This study corroborates those findings in the context of Nepal, where these factors were positively correlated with consumer behavior toward eco-friendly products. For example, product availability emerged as the most influential factor, consistent with the findings of Kumar and Anand (2014), who emphasized the role of availability and accessibility in driving eco-friendly product purchases.

The importance of product availability in influencing consumer buying behavior was supported by the data, with the highest standardized factor loading observed for this variable. This finding is consistent with Mondelaers et al. (2009), who highlighted that access to green products significantly boosts consumer confidence and adoption. In Nepal, consumers appear to prioritize product availability over product price, supporting the notion that increasing distribution channels for eco-friendly products could enhance sales and market penetration (Florenthal & Arling, 2011).

The study revealed a statistically significant but comparatively lower impact of product price on consumer behavior, which aligns with earlier studies (Bang et al., 2000). While consumers express a willingness to pay a higher price for eco-friendly products, the price remains a critical consideration, echoing the work of Patel et al. (2017). Environmental awareness was another significant factor, with many respondents indicating that they were motivated by a desire to reduce environmental harm. This result supports the conclusions of Sharma and Trivedi (2016), who found that environmental awareness plays a crucial role in promoting green consumption.

Product features had a significant impact on consumer buying behavior, as suggested by prior research (Mahajan, 2016; Zubair, 2014). The study's findings

suggest that highlighting the functional benefits of eco-friendly products in promotional campaigns can influence consumer choices in Nepal.

Product availability emerged as the strongest predictor of eco-friendly product purchases, resonating with the findings of Renko et al. (2011) and Vermeir and Verbeke (2008). Limited accessibility to eco-friendly products remains a key challenge in Nepal, particularly in Kathmandu Valley, potentially hindering adoption. As Sharaf and Perumal (2018) noted, increasing product availability could stimulate demand for green products. While this study provides valuable insights into the factors affecting the buying behavior of eco-friendly products in Nepal, it is not without limitations. The study's reliance on cross-sectional data from 384 respondents and its geographical focus on Nepal limit the generalizability of the findings. Future research could explore consumer behavior in other regions of Nepal to determine whether the same factors apply. Furthermore, longitudinal studies could provide deeper insights into shifting consumer preferences over time.

6. CONCLUSION AND IMPLICATIONS

The positive and statistically significant correlation between these factors and eco-friendly behaviors emphasizes their collective influence on consumer choices. Businesses and policymakers should leverage these insights to enhance strategies that promote sustainable consumption and encourage the widespread adoption of environmentally friendly products. This study concluded that product availability, environmental awareness, product quality, product features, and product price significantly influence consumer buying behavior toward eco-friendly products in Nepal. The findings of this study offer practical implications for businesses and policymakers. Companies should focus on enhancing the availability and accessibility of eco-friendly products while also investing in targeted advertising that highlights both product functionality and environmental benefits. Policymakers could support the green transition by implementing policies that encourage market expansion, better distribution networks, and awareness campaigns.

The practical implications of this study are far-reaching for stakeholders involved in promoting eco-friendly products. Businesses should consider strategic pricing models to make eco-friendly products more competitive. Retailers could prioritize

stocking green products more visibly to boost consumer engagement and accessibility. The theoretical implications of this study extend our understanding of consumer behavior in the context of eco-friendly products. The findings offer valuable insights for refining existing theoretical models and frameworks related to consumer behavior, particularly in the domain of sustainable and eco-friendly products. They encourage researchers to further investigate how these factors interact and influence consumer decision-making processes in various contexts.

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