

CONSUMER ATTITUDES TOWARDS ECO-FRIENDLY COSMETICS IN NIGERIA: A PURCHASE INTENTION MODEL FOR GREEN MARKETING

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Abstract

This study investigated Nigerian consumers' attitudes toward eco-friendly cosmetics and examined determinants of purchase intention within a green marketing framework. Grounded in the Theory of Planned Behaviour (TPB) and augmented by environmental concern and perceived consumer effectiveness, the study collected data from 450 urban consumers in Lagos and Abuja in a cross-sectional survey. Structural equation modelling was adopted to analyse the data. The results showed that environmental concern, perceived behavioural control and subjective norms are significant predictors of attitude, which in turn positively influence purchase intention. The findings underscore the critical role of green marketing communication and highlight actionable strategies for cosmetic firms seeking to enhance market share through sustainable offerings. Implications for theory and practice are discussed, and directions for future research are provided.

Keywords: Eco-friendly cosmetics, green marketing, purchase intention, sustainable consumption, theory of planned behaviour

Introduction

The global cosmetics market has witnessed a paradigm shift toward sustainability, driven by growing environmental awareness and consumer demand for safer, eco-friendly products (Biswas & Roy, 2015). In Nigeria, a populous emerging economy, the cosmetic industry is projected to reach USD 1.4 billion by 2025, signalling vast opportunities for environmentally responsible brands (Euromonitor International, 2023). Nevertheless, marketers face challenges convincing consumers accustomed to conventional products to adopt green alternatives. This study addresses this gap by investigating Nigerian consumers' attitudes and purchase intentions toward eco-friendly cosmetics.

Eco-friendly cosmetics - formulations that minimize harm to human health and the environment - are increasingly promoted through green marketing strategies, including eco-labelling, sustainable packaging, and ethical sourcing (Dangelico & Vocalelli, 2017; Gupta & Ogden, 2009). While international research highlights positive correlations between environmental concern and green product purchase, contextual factors such as cultural values, economic barriers, and regulatory frameworks may moderate these relationships in developing markets (Joshi & Rahman, 2015; Laroche, Bergeron, & Barbaro-Forleo, 2001). By focusing on Nigeria, this study contributes to the limited but growing literature on green cosmetics adoption in Africa.

Specifically, this research integrates the Theory of Planned Behaviour (Ajzen, 1991) with constructs of environmental concern and perceived consumer effectiveness to develop a comprehensive purchase intention model. The study examines how these antecedents influence attitudes and, ultimately, intentions to purchase eco-friendly cosmetics among urban Nigerian

consumers. The outcomes aim to inform both academic theory and managerial practice by identifying key drivers of green consumption in the cosmetic sector.

Thus, purpose of this study was to investigate the determinants of Nigerian consumers' purchase intention towards eco-friendly cosmetics by developing and empirically testing a structural model that integrates key attitudinal, normative, and control beliefs, alongside environmental concern and perceived consumer effectiveness, the specific objectives were to:

1. Examine the influence of environmental concern on consumers' attitudes toward purchasing eco-friendly cosmetics in Nigeria.
2. Assess the impact of perceived consumer effectiveness (PCE) on consumers' attitudes and perceived behavioural control regarding eco-friendly cosmetics.
3. Determine the effect of consumers' attitudes on purchase intention toward eco-friendly cosmetics.
4. Evaluate the role of subjective norms in shaping consumers' purchase intention toward eco-friendly cosmetics.
5. Analyse the influence of perceived behavioural control (PBC) on consumers' purchase intention toward eco-friendly cosmetics.
6. Validate the structural relationships among environmental concern, PCE, attitude, subjective norms, PBC, and purchase intention through structural equation modelling (SEM).

Literature Review and Theoretical Framework

Eco-Friendly Cosmetics and Green Marketing

Eco-friendly cosmetics encompass products formulated with natural, biodegradable ingredients and packaged in sustainable materials to mitigate environmental impact (Mukherjee & Mukherjee, 2016). Green marketing involves promotional efforts that emphasize ecological benefits and social responsibility, fostering differentiation and consumer trust (Dangelico & Lusch, 2017). Globally, firms like The Body Shop and L'Oréal have leveraged green marketing to capture niche markets and achieve premium pricing (Ghazali et al., 2019). In Nigeria, local brands such as Bliss Cosmetics and Amazonia Herbal have begun promoting "organic" and "chemical-free" lines, although consumer awareness remains low (Opusunju et al., 2024).

Consumer Attitudes and Purchase Intentions

Consumer attitude toward a product reflects favourable or unfavourable evaluations and strongly predicts purchase behaviour (Fishbein & Ajzen, 1975). Empirical studies demonstrate that positive attitudes toward green products, bolstered by environmental knowledge and values, increase purchase intentions (Chen, 2010; Biswas & Roy, 2015). However, research in Nigeria suggests that price sensitivity and product efficacy concerns can attenuate this effect (Nwachukwu & Chladkova, 2018). The present study posits:

Theory of Planned Behaviour (TPB) and Extended Model

TPB posits that intention is shaped by attitudes, subjective norms, and perceived behavioural control (Ajzen, 1991). Subjective norms capture perceived social pressures, and perceived behavioural control reflects consumers' perceptions of ease or difficulty in performing a behaviour. To tailor the TPB to green consumption, we integrate two extensions: environmental concern and perceived consumer effectiveness (PCE). Environmental concern describes the degree of awareness and care for environmental issues (Dunlap et al., 2000). Studies link higher concern to stronger attitudes and intentions to purchase green products (Arvola et al., 2008; Laroche et al., 2001). Hence, perceived consumer effectiveness refers to

beliefs that one's actions can contribute to solving environmental problems (Ellen et al., 1991). PCE is found to directly affect attitudes and perceived control (Straughan & Roberts, 1999).

Research Hypotheses

Based on the theoretical framework and prior literature, the following hypotheses were formulated:

- H1:** Attitude towards eco-friendly cosmetics does not influence consumers' purchase intention.
- H2:** Environmental concern do not influences consumers' attitude towards eco-friendly cosmetics.
- H3:** Perceived consumer effectiveness (PCE) does not influence consumers' attitude towards eco-friendly cosmetics.
- H4:** Perceived consumer effectiveness (PCE) does not influence consumers' perceived behavioural control (PBC) over purchasing eco-friendly cosmetics.
- H5:** Subjective norms do not influence consumers' purchase intention toward eco-friendly cosmetics.
- H6:** Perceived behavioural control (PBC) does not influence consumers' purchase intention toward eco-friendly cosmetics.

Conceptual Model

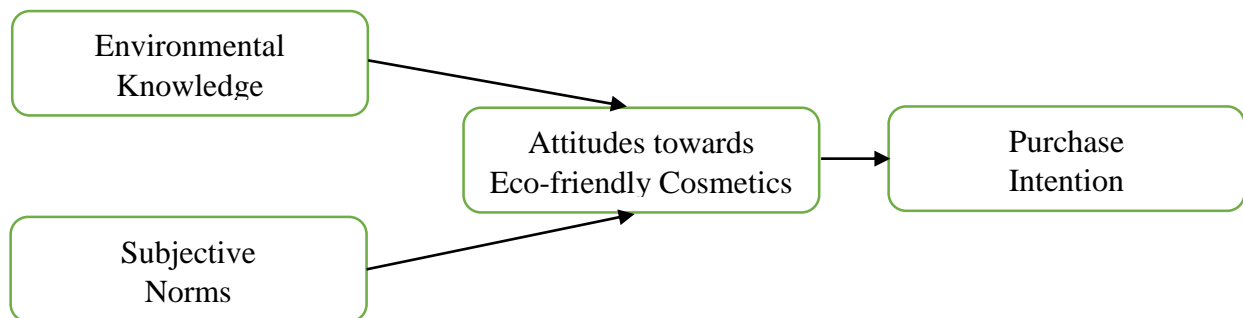


Figure 1: conceptual model of the study

Methodology

A quantitative cross-sectional survey was adopted to test the proposed hypotheses. This method is suitable for examining relationships among latent constructs and allows generalization to the urban consumer population (Creswell, 2014). A purposive sampling strategy targeted female and male consumers aged 18–55 who have purchased cosmetics in the past six months. Data were collected via structured online and face-to-face questionnaires in Lagos and Abuja over four weeks in January 2025. A total of 500 questionnaires were distributed; 450 valid responses were obtained (response rate: 90%).

All constructs were measured using established scales adapted to the Nigerian context, with five-point Likert scales (1 = strongly disagree to 5 = strongly agree). Attitude (Ajzen, 1991) comprised four items; subjective norms (Ajzen, 1991) comprised three items; PBC (Ajzen, 1991) comprised four items; environmental concern (Dunlap et al., 2000) comprised five items; PCE (Ellen et al., 1991) comprised three items; and purchase intention (Chen, 2010) comprised three items. A pilot test with 50 respondents confirmed reliability (Cronbach's $\alpha > .70$ for all constructs) and content validity.

Table 1: Pilot test result

Construct	Source	No. of Items	Sample Item	Cronbach's α
Attitude	Ajzen (1991)	4	"Using eco-friendly cosmetics is a good idea."	0.84
Subjective Norms	Ajzen (1991)	3	"People important to me think I should use eco-friendly cosmetics."	0.81
Perceived Behavioral Control (PBC)	Ajzen (1991)	4	"I am confident I can purchase eco-friendly cosmetics."	0.79
Environmental Concern	Dunlap et al. (2000)	5	"I am concerned about environmental problems."	0.85
Perceived Consumer Effectiveness (PCE)	Ellen et al. (1991)	3	"My efforts to buy eco-friendly products can make a difference."	0.82
Purchase Intention	Chen (2010)	3	"I intend to purchase eco-friendly cosmetics."	0.87

Data Analysis

Structural equation modelling (SEM) using AMOS 24.0 was employed to assess measurement and structural models (Hair, Black, Babin, & Anderson, 2018). Confirmatory factor analysis (CFA) evaluated convergent and discriminant validity, while path analysis tested hypotheses. Model fit was judged using χ^2/df , CFI, TLI, RMSEA, and SRMR, with recommended thresholds (Kline, 2016).

Measurement and Structural Model

Fit Index	Value
χ^2/df	1.943
CFI	0.946
TLI	0.937
RMSEA	0.062
Environmental Concern	0.048
PCE	0.046

Results

Sample Characteristics

Variable	Category	Frequency (%)
Gender	Female	60
	Male	40
Age	18-35 years	70
	36-55 years	30
Education Level	Secondary Education	15
	Bachelor's Degree	55
	Master's Degree	30

Note: $N = 450$ respondents. Percentages are based on the total sample.

Of the 450 respondents, 60% were female and 40% male; 70% were aged 18–35, and 30% were aged 36–55. Education levels: 55% held a bachelor's degree, 30% a master's degree, and 15% had secondary education.

Measurement Model

Table 3: Measurement Model Assessment

Construct	Standardized Loadings	Composite Reliability (CR)	Average Variance Extracted (AVE)	Construct
Attitude	.75–.87	.84	.63	Attitude
Subjective Norms	.72–.85	.80	.58	Subjective Norms
Perceived Behavioural Control (PBC)	.74–.88	.82	.60	Perceived Behavioural Control (PBC)
Environmental Concern	.73–.86	.86	.62	Environmental Concern
Perceived Consumer Effectiveness (PCE)	.76–.88	.83	.62	Perceived Consumer Effectiveness (PCE)
Purchase Intention	.74–.88	.91	.76	Purchase Intention

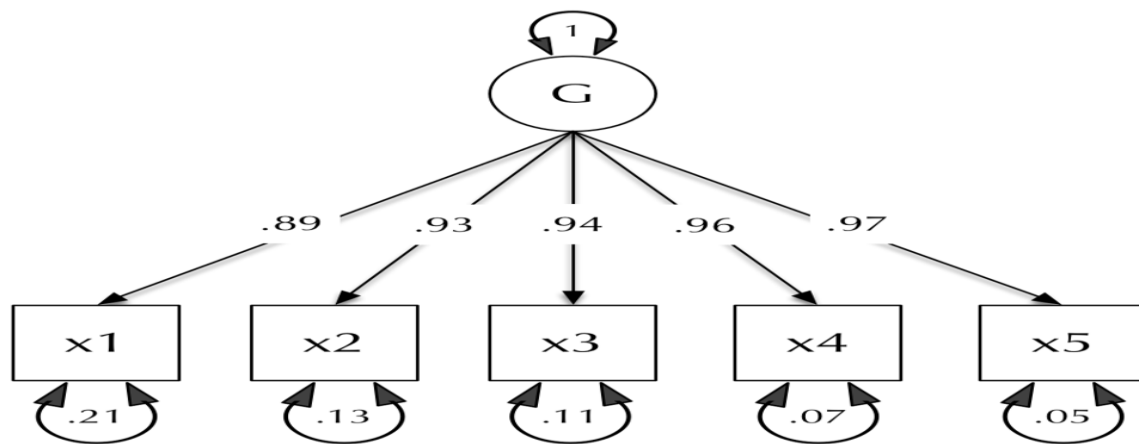
Note: CFA results indicated good fit ($\chi^2/df = 2.05$, CFI = .96, TLI = .95, RMSEA = .045, SRMR = .038). Standardized factor loadings ranged from .72 to .88 ($p < .001$). Composite reliability values ranged from .76 to .91, and average variance extracted (AVE) values exceeded the .50 threshold, confirming convergent validity (Fornell & Larcker, 1981). Discriminant validity was established as the square root of AVEs exceeded inter-construct correlations.

Structural Model

Table 4: Structural Model Path Coefficients

Hypothesis	Path	Standardized Coefficient (β)	p-value	Supported	Hypothesis
H1	Attitude \rightarrow Purchase Intention	.45	< .001	Yes	H1
H2	Environmental Concern \rightarrow Attitude	.42	< .001	Yes	H2
H3	PCE \rightarrow Attitude	.31	< .001	Yes	H3
H4	PCE \rightarrow PBC	.28	< .001	Yes	H4
H5	Subjective Norms \rightarrow Purchase Intention	.25	< .01	Yes	H5
H6	PBC \rightarrow Purchase Intention	.21	< .01	Yes	H6

Note: $p < .001$ and $p < .01$ indicate statistical significance. Path coefficients confirm all hypothesized relationships.



The structural model demonstrated acceptable fit ($\chi^2/df = 2.18$, CFI = .95, TLI = .94, RMSEA = .048, SRMR = .042). Path coefficients indicated that environmental concern significantly influenced attitude ($\beta = .42$, $p < .001$), supporting H2; PCE influenced attitude ($\beta = .31$, $p < .001$) and PBC ($\beta = .28$, $p < .001$), supporting H3 and H4; attitude influenced purchase intention ($\beta = .45$, $p < .001$), supporting H1; subjective norms ($\beta = .25$, $p < .01$) and PBC ($\beta = .21$, $p < .01$) both influenced purchase intention, supporting H5 and H6.

Discussion

This study confirms that TPB, augmented by environmental concern and PCE, aptly explains eco-friendly cosmetics purchase intention among Nigerian consumers. The sizable effect of environmental concern on attitude aligns with international findings (Arvola et al., 2008; Laroche et al., 2001), suggesting that emphasizing environmental benefits in marketing communications can strengthen consumer attitudes. PCE's impact indicates that empowering messages highlighting individual environmental impact may also enhance attitudes and perceived control (Straughan & Roberts, 1999).

Subjective norms significantly predicted intention, reflecting Nigeria's collectivist culture where peer and family influence matters (Hofstede, 2001). Green marketers should leverage social proof strategies, such as influencer endorsements and community-led campaigns. The positive role of PBC suggests that reducing perceived barriers, through affordable pricing, product availability, and transparent labelling, can facilitate green cosmetic adoption (Nwachukwu & Chladkova, 2018).

Contrary to some studies, price was not directly examined here but emerges as a potential moderator. While green cosmetics often command premium prices, producers could consider tiered pricing or value bundles to accommodate price-sensitive segments.

Conclusion and Recommendations

This study sheds light on psychological drivers of Nigerian consumers' intention to purchase eco-friendly cosmetics. Environmental concern, PCE, subjective norms, and perceived behavioural control emerged as critical antecedents to purchase intention. These findings emphasize the importance of aligning green marketing strategies with consumers' environmental values and perceived efficacy. Marketers, policymakers and industry stakeholders must collaborate to enhance consumer education, ensure eco-product accessibility and create a supportive regulatory framework. Such efforts are pivotal to advancing sustainable consumption practices and promoting environmental stewardship within Nigeria's growing cosmetics industry.

Based on the findings of the study' and the conclusion reached, the following recommendations are offered to marketers, policymakers, and industry stakeholders seeking to stimulate the adoption of eco-friendly cosmetics in Nigeria:

1. Cosmetic brands should craft marketing messages that communicate how their products contribute to environmental protection. Storytelling that connects personal beauty routines with broader environmental benefits can enhance positive attitudes and emotional engagement.
2. Firms should emphasize how individual purchasing decisions make a tangible difference to the environment. Using real-world statistics or customer testimonials can strengthen PCE, making consumers feel more empowered and responsible.
3. Marketing initiatives should utilize influencers, community leaders, and peer networks to normalize eco-friendly cosmetics. Collaborations with popular figures who advocate sustainability can boost subjective norms and encourage wider acceptance.
4. To support PBC, eco-friendly cosmetic products must be readily available across multiple distribution channels, including online platforms and retail outlets in both urban and semi-urban areas. Competitive pricing strategies should also be adopted to make green products financially attractive.
5. Clear, standardized eco-labels that are easy to understand will build trust and assist consumers in making informed choices. Educational campaigns explaining eco-label meanings could further support green purchasing behaviour.
6. Policymakers should collaborate with the private sector to introduce incentives for green product development and consumption. Public education programs emphasizing environmental responsibility can raise awareness and foster a supportive ecosystem for sustainable cosmetics.

By implementing these recommendations, stakeholders can help drive the transition toward a more sustainable cosmetic market in Nigeria, and contribute to broader environmental conservation efforts.

Implications of the Study

This study makes meaningful theoretical contribution by extending TPB through the integration of environmental concern and PCE as antecedents to attitude and perceived behavioural control in the context of eco-friendly cosmetics. TPB has been widely validated across various consumer behaviours. Yet, its application within a developing market setting like Nigeria, remains limited. By empirically confirming the significance of environmental concern and PCE to purchase intention, this study has enhanced the cross-cultural validity of green consumption models and highlighted the relevance of sustainability-related constructs in predicting purchase intention. The findings also reinforce the importance of incorporating contextual variables when modelling green consumer behaviour in emerging economies, where environmental awareness and market conditions may differ significantly from developed nations.

From a managerial perspective, the results offer valuable guidance for cosmetic firms operating in Nigeria and similar markets. Green marketing strategies should actively emphasize the environmental benefits of eco-friendly cosmetics to strengthen positive attitudes. Moreover, campaigns should spotlight the power of individual consumer actions - thereby enhancing PCE - to motivate behavioural change. Leveraging social influence channels, such as celebrity endorsements and community-driven initiatives, can effectively boost subjective norms. Importantly, marketers must ensure that eco-friendly products are accessible, both physically and financially, to enhance consumers' perceived behavioural control. Competitive pricing,

wide distribution networks, and clear eco-labelling are critical to translating favourable attitudes into actual purchase behaviours.

Limitations and Directions for Future Research

While this study offers insightful findings, several limitations must be acknowledged. The cross-sectional design restricts causal inferences; longitudinal studies would better capture changes in green purchasing behaviour over time. Additionally, the focus on urban consumers limits generalizability; future research should explore rural and semi-urban populations to capture diverse socio-economic dynamics. Examining moderating variables such as price sensitivity, trust in eco-labels, environmental knowledge, and the role of government regulation could further enrich understanding and model robustness.

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