Beauty with a Conscience: Can Technology Bridge the Gap Between Eco-Awareness and Sustainable Online Choices?

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[Abstract] This study examines the influence of environmental awareness and perceived value on adopting technology for sustainable online beauty product consumption, utilizing the UTAUT framework. It aims to enhance consumer acceptance and guide marketing strategies, product development, and policy in the beauty industry. The research, involving 385 respondents from Delhi through an online survey, employed quantitative analysis and PLS-SEM to identify factors driving adoption intentions, with perceived value mediating and environmental consciousness moderating these intentions. While offering valuable insights for marketing and environmental advocacy in the beauty sector, the study faces limitations in broader applicability, reliance on self-reported data, and its cross-sectional nature. Future research should explore additional moderating factors, use objective measures, and apply longitudinal or experimental designs for more robust results. Further investigation into the mediating role of perceived value, long-term adoption patterns, cross-cultural differences, and qualitative studies could deepen understanding of sustainable beauty product consumption.

[Keywords] sustainable online beauty products, UTAUT Model, environmental consciousness, perceived value, consumer behaviour, e-commerce, moderating effect

Introduction

Driven by rising environmental consciousness, sustainable online beauty product consumption is booming in India. The market for natural/organic personal care is already a US$0.9 billion giant, projected to grow 3.53% annually (Statista). 69% of Indian consumers are open to paying more for sustainable products, showcasing a shift in preference (Statista, McKeown & Shearer, 2019). Brands like Biotique, Juicy Chemistry, and Kama Ayurveda cater to this demand with eco-friendly packaging and ethical sourcing (Reddy et al., 2023). Sustainable packaging is key, with brands adopting innovative materials to reduce plastic waste (Jestratijevic et al., 2022). Cruelty-free and vegan options are also surging, with the global vegan cosmetics market expected to reach US$20.8 billion by 2025 (Statista). Brands like Forest Essentials and Soulflower prioritize sustainability throughout their value chain (Mondal & Giri, 2022). Social media influencers play a crucial role in educating consumers and promoting certified sustainable products available on online platforms (Mondal & Giri, 2022, Sodhi & Tang, 2021).

The Indian government's initiatives like "Make in India" and "Swachh Bharat Abhiyan" further encourage sustainable practices in the industry ("Circular Economy Scenario in India," 2021). Technology fuels this shift. Digital connectivity and e-commerce platforms like Nykaa and Purplle have dedicated sections for sustainable beauty items (Grădinaru et al., 2022). Mobile commerce, accounting for 72.9% of e-commerce sales in 2021, adds convenience (Loesche, 2018). Virtual try-on tools using AR/VR eliminate the need for physical samples (Casciani et al., 2022). AI algorithms offer personalized recommendations for sustainable products (Yoon & Lee, 2021). Online platforms facilitate transparency through consumer reviews (Mackey & Cuomo, 2020). Social media influencers further educate and promote eco-friendly

brands (Lavuri et al., 2022). A 2022 Rakuten Insight survey found 54% of Indians prioritize purchasing environmentally friendly or sustainably produced products ("India: Sustainable Products Purchased 2022 | Statista," n.d.). Government initiatives like "Digital India" and "Atmanirbhar Bharat" support technology adoption and sustainability (Varshney et al., 2021). As India embraces digital connectivity and environmental consciousness, the demand for sustainable beauty options, powered by technology and online platforms, is poised to soar (Lavuri et al., 2022).

Research Gaps

Research on sustainable online beauty consumption, particularly the interplay of environmental consciousness, perceived value, and technology adoption, is scarce (Simay et al., 2022). Existing studies often neglect the online beauty sector despite e-commerce boom (Park & Lee, 2021). Examining these factors in the Indian context, with its unique cultural nuances (Halder et al., 2020), can yield valuable insights for marketing and policy interventions. Developing industry-specific sustainability metrics would further empower research and guide effective practices.

Research Objectives

- Explore how environmental awareness moderates perceived value's influence on tech adoption for sustainable online beauty consumption in India.
- Investigate perceived value's mediating role between awareness and tech adoption factors.
- Recommend actions for beauty brands, platforms, and policymakers to leverage these relationships for increased tech adoption and sustainable beauty practices.

Literature Review

Sustainable Consumption

Sustainable consumption entails purposefully choosing products and services that mitigate adverse environmental, social, and economic effects. The goal is to address the current generation's needs while safeguarding the capacity of future generations to fulfil their own requirements (Lubowiecki-Vikuk et al., 2021). Within the beauty industry, the adoption of sustainable consumption practices has become increasingly important as consumers seek eco-friendly and socially responsible alternatives (Kolling et al., 2022). Sustainable beauty products prioritize natural and organic ingredients sourced from renewable and non-toxic resources, avoiding harmful substances such as synthetic chemicals, parabens, and phthalates (Franca & Ueno, 2020). They are often cruelty-free and may offer vegan options, free from animal-derived ingredients. Packaging materials are also carefully considered, utilizing recyclable, biodegradable, or compostable materials to minimize waste (Martins & Marto, 2023).

Sustainable beauty brands focus on responsible sourcing (Kolling et al., 2022), including sustainably harvested botanicals (Mwinga et al., 2019) and fair-trade practices (Fortunati et al., 2020), while also reducing their carbon footprint (Fortunati et al., 2020) and implementing environmentally friendly manufacturing processes (Amberg & Fogarassy, 2019). Transparency is emphasized, with brands providing information about ingredients, sourcing, and manufacturing, and seeking certifications from recognized organizations to validate their sustainability commitment (Kumar et al., 2021). Fair labour` practices are prioritized, ensuring safe working conditions, fair wages, and promoting social justice (Sorribes et al., 2021). Consumers can look for specific labels and certifications to guide their choices, although regulations may vary across regions.

The increasing desire for eco-friendly beauty items has sparked the rise of specialized brands and endeavours. Consumer decisions play a substantial role in promoting transparency and responsibility within the beauty sector. By opting for sustainable beauty products, consumers contribute to reducing their ecological footprint, supporting ethical practices, and promoting a more sustainable and conscious approach to personal care and beauty.

Sustainable Consumption and E-Commerce

The rise of e-commerce platforms has made sustainable beauty products more accessible and available, integrating online shopping into the landscape of sustainable beauty consumption (Tran, 2021). The beauty industry holds significant influence over global consumption patterns, leading to increased scrutiny of its environmental impact (Sharma, 2023). The significance of sustainable consumption has grown due to heightened consumer awareness regarding the ecological and societal ramifications associated with their buying choices (Khare, 2023). E-commerce platforms have facilitated access to sustainable beauty products, allowing a wider consumer base to explore and purchase from various sustainable beauty brands, including niche and independent ones not commonly found in physical stores (Faccia et al., 2023). These platforms enable brands to share detailed information about their sustainable practices, ingredients, certifications, and packaging materials, empowering consumers to make informed choices aligned with their sustainability values (Vadakkepatt et al., 2021).

E-commerce platforms also contribute to waste reduction by encouraging brands to use minimal and eco-friendly packaging, optimizing product packaging for efficient shipping (Upadhyay et al., 2021). To address environmental concerns, some platforms implement carbon offset programs and collaborate with sustainable shipping providers to reduce their carbon footprint (Dahlmann & Roehrich, 2019). Furthermore, these platforms act as educational resources, promoting consumer awareness of sustainable beauty practices, eco-friendly options, and raising awareness of environmental and social issues within the beauty industry (Xie et al., 2021). Customer reviews and ratings on e-commerce platforms enable consumers to share experiences, fostering transparency and influencing purchasing decisions that prioritize sustainability (Al-Adwan et al., 2022).

However, challenges remain, such as verifying sustainable claims to combat greenwashing and addressing environmental impacts associated with packaging materials, excessive shipping, and single-item deliveries (Testa et al., 2021). Striking a balance between convenience and sustainable packaging and shipping practices is crucial (Jagoda et al., 2023). Ultimately, collaboration between platforms, brands, and consumers is essential to create a more sustainable and ethical beauty industry within the e-commerce landscape (Sousa et al., 2021).

Sustainable Consumption and Technology Acceptance

Sustainable consumption and technology acceptance are closely linked because technology enables and encourages sustainable behaviours and choices (Parmentola et al., 2021). Embracing and incorporating technology can greatly influence individuals' capacity to partake in environmentally conscious behaviours. Technology provides innovative solutions and tools that allow people to adopt sustainable behaviours, such as using energy-efficient appliances, smart home systems, and renewable energy technologies to reduce energy consumption and carbon emissions (Al-Emran & Griffy-Brown, 2023).

Online platforms and apps offer information on sustainable products, recycling options, and sustainable transportation alternatives, empowering consumers to make informed choices (Kurniawan et al., 2022). Technology also enhances convenience and accessibility, making sustainable options more easily available through e-commerce platforms that offer a wide range of sustainable products (Ingaldi & Ulewicz, 2019). It also facilitates sharing and collaborative consumption models, like car-sharing apps and peer-to-peer rental platforms, that contribute to resource reduction and a more sustainable economy (Zhu & Liu, 2021). Technology plays a crucial role in raising awareness by disseminating information about sustainability issues through digital media, social networks, and online communities (Ingenhoff et al., 2021).

This increased awareness influences attitudes and behaviours toward sustainable consumption. Decision support tools, such as eco-labels, product rating systems, and sustainability apps, help individuals make sustainable choices by evaluating the environmental impact of products (Turunen & Halme, 2021). Behaviour changes technologies, like smart meters and personalized feedback systems, promote energy conservation and sustainable lifestyle choices (De Dominicis et al., 2019). Technology helps overcome barriers to sustainable consumption by offering alternative business models like circular economy platforms that encourage reuse, repair, and recycling (Parajuly et al., 2020). Online communities and social networks

offer encouragement and motivation for adopting sustainable lifestyles, nurturing a feeling of camaraderie and mutual ideals (Hassanli et al., 2020). Nevertheless, it's essential to contemplate the ecological consequences of technology, encompassing the fabrication, utilization, and disposal of devices, which can contribute to electronic waste and the depletion of resources (Murthy & Ramakrishna, 2022). Designing and producing technology with eco-friendly materials, energy efficiency, and responsible end-of-life management is essential.

Overall, technology acceptance plays a pivotal role in promoting and facilitating sustainable consumption behaviours. By embracing technology and leveraging its potential, individuals can make informed choices, adopt sustainable practices, and contribute to a more environmentally conscious society.

Sustainable Consumption of Beauty Products Online

Sustainable consumption of beauty products online involves making environmentally conscious choices when purchasing beauty items through e-commerce platforms (Degli Esposti et al., 2021). This involves evaluating the ecological, societal, and moral dimensions of the products and related procedures throughout the online shopping journey (Testa et al., 2020). Online beauty platforms offer a diverse range of products, enabling consumers to select from various sustainable beauty brands and eco-friendly options (Sadiq et al., 2021).

Consumers can explore and compare products based on sustainability attributes such as natural ingredients, cruelty-free certifications, recyclable packaging, or organic and ethically sourced materials (Suphasomboon & Vassanadumrongdee, 2022). Product information on these platforms is comprehensive, providing details about sustainability practices, production methods, and social responsibility initiatives of the brands (Gunawan et al., 2020). This transparency empowers consumers to make informed choices and back brands that resonate with their principles. Sustainable online beauty shopping considers packaging materials, with some platforms prioritizing minimal packaging, eco-friendly materials, or promoting packaging-free options.

Consumers can choose products with recyclable, biodegradable, or refillable packaging to minimize waste generation. Customer reviews and ratings on online platforms provide valuable feedback from other consumers, fostering trust, transparency, and influencing purchasing decisions towards sustainable options (Khan et al., 2023). Consideration is also given to the environmental impact of shipping and delivery. Certain platforms partner with transportation companies that prioritize environmentally friendly methods or provide initiatives to offset carbon emissions, thereby diminishing the ecological impact linked with shipping (Lopera-Mármol & Jiménez-Morales, 2021).

Collaborative consumption models, such as peer-to-peer rental platforms or beauty product swap communities, are facilitated by online platforms, promoting resource conservation, and reducing individual ownership (Dolnicar, 2019). These platforms serve as educational resources, offering information on sustainable beauty practices, tutorials, and tips for conscious consumption. They may also foster communities and forums where consumers can share knowledge, experiences, and recommendations regarding sustainable beauty products. However, challenges exist, such as greenwashing, where brands make false sustainability claims.

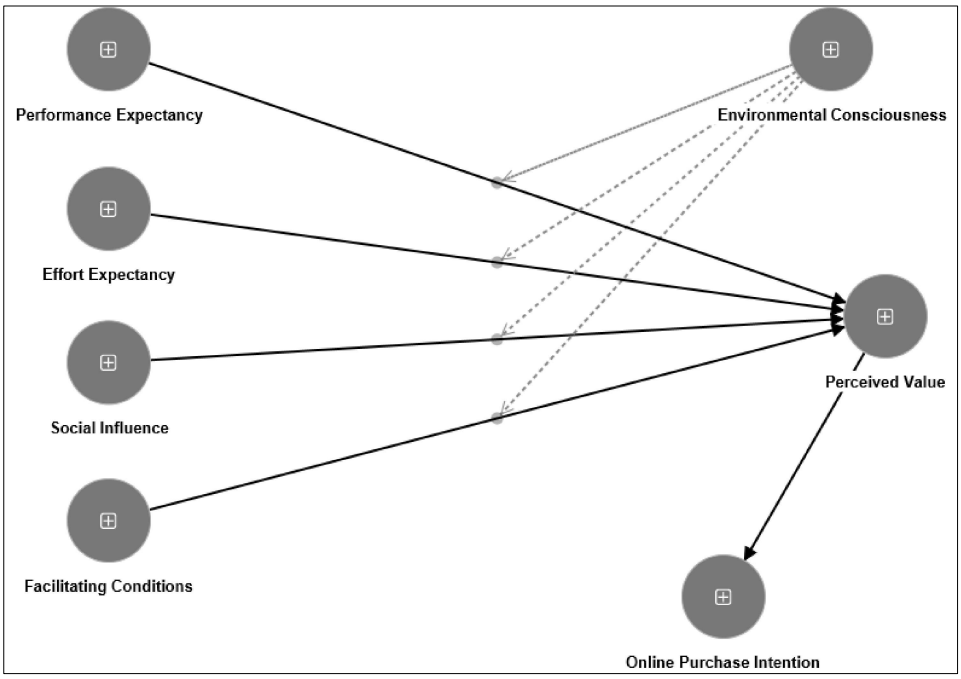
Consumers are advised to verify sustainability claims through certifications or reliable sources. The environmental impact of packaging materials and shipping carbon footprints should also be considered. By practicing sustainable consumption of beauty products online, consumers contribute to reducing their environmental impact, supporting ethical and responsible brands, and advocating for a more sustainable beauty industry.

Research Model

This research delves into the factors influencing online purchases of sustainable beauty products. It adapts the UTAUT model, examining external influences (performance expectancy, effort expectancy, social influence, facilitating conditions) and internal aspects (perceived value, purchase intention). A key addition is environmental consciousness, acting as a moderator to account for its potential impact on these relationships. Figure 1 illustrates how awareness and perceived value shape online choices in this context.

By incorporating moderator variables, the researchers aim to understand how specific individual and contextual factors might strengthen or weaken the connections between these variables, revealing deeper insights into sustainable beauty consumption online.

Figure 1
Research Model (Source: Created by the Author)



Theoretical Framework and Hypothesis Development

This research delves into how individuals embrace technology for sustainable online beauty purchases. It utilizes the Unified Theory of Acceptance and Use of Technology (UTAUT) framework, originally developed by Venkatesh et al. (2003) to understand technology adoption. UTAUT's four key elements: Performance expectancy: Belief that using technology will improve outcomes. Effort expectancy: Ease of using the technology. Social influence: Pressure from peers and society to use the technology. Facilitating conditions: Availability of resources and support for using the technology.

These factors influence intention to adopt technology, which in turn shapes usage patterns. UTAUT has proven versatile, finding applications in healthcare, education, e-commerce, and beyond (Wang et al., 2020; Chen et al., 2021; Bu et al., 2021). This study tailors UTAUT to sustainable online beauty consumption. The four core UTAUT factors are considered independent variables influencing technology adoption for eco-friendly beauty products. Two additional variables: Environmental consciousness: Moderates the relationship between UTAUT factors and technology adoption. Perceived value: Mediates the influence of UTAUT factors on technology adoption, highlighting how they impact consumers' perception of value associated with sustainable online beauty purchases. By incorporating these factors, the study aims to uncover the complex interplay between technology adoption, environmental consciousness, perceived value, and sustainable online beauty consumption.

Performance Expectancy with Environmental Consciousness as Moderator and Perceived Value as Mediator

Performance expectancy, the anticipated benefits of using technology (Al-Saedi et al., 2020), shapes consumer beliefs about adopting it for sustainable online beauty purchases. Consumers who expect greater product access, convenience, or cost savings from technology are more likely to adopt it. Therefore, we hypothesize: *H1: Higher performance expectancy leads to a greater likelihood of adopting technology for sustainable online beauty product consumption.*

Effort Expectancy with Environmental Consciousness as Moderator and Perceived Value as Mediator

Effort expectancy, the perceived ease of using technology (Nguyen, 2022), influences consumer adoption for sustainable online beauty purchases. Consumers who expect a simple and user-friendly experience are more likely to adopt it. Therefore, we hypothesize: *H2: Higher effort expectancy leads to a greater likelihood of adopting technology for sustainable online beauty product consumption.*

Social Influence with Environmental Consciousness as Moderator and Perceived Value as Mediator

Social influence, shaped by peers and online communities, drives adoption of technology for sustainable online beauty purchases (Abbad, 2021; Hu et al., 2019; Lee et al., 2021). Positive norms and influencer endorsements on social media further strengthen this impact (Jansom & Pongsakornrungsilp, 2021; Kohler et al., 2023). Therefore, we hypothesize: *H3: Stronger social influence leads to a greater likelihood of adopting technology for sustainable online beauty product consumption.*

Facilitating Conditions with Environmental Consciousness as Moderator and Perceived Value as Mediator

Facilitating conditions, like transparent info, user-friendly platforms, and eco-friendly practices, encourage technology adoption for online sustainable beauty purchases (Yang et al., 2022). Clear data, intuitive platforms, and supportive policies empower consumers (Adisorn et al., 2021; Skelton et al., 2020; Zafar et al., 2021). Therefore, we hypothesize: *H4: Stronger facilitating conditions lead to a greater likelihood of adopting technology for sustainable online beauty product consumption.*

Research Methodology

This study investigates technology adoption for sustainable online beauty purchases in Delhi (16–50-year-olds). A cross-sectional survey, (Krejcie & Morgan, 1970) targets individuals familiar with eco-friendly products using online questionnaires with 5-point Likert scales (1-5: Strongly Disagree to Strongly Agree). The questionnaire covers UTAUT factors, perceived value, environmental consciousness, and intentions towards adopting sustainable online beauty products. Pre-testing ensures clarity and validity, and standardized measurement scales, adapted for Delhi, are used. Data analysis via PLS-SEM with SmartPLS 4.0.9.2 (Trial-Full Version) will test hypotheses through bootstrapping.

Discussion of Results

Demographic Profiles

Table 1 summarizes participant demographics for the Delhi study on technology adoption in sustainable online beauty purchases (16-50 years old). Females (64%) outnumber males (36%). Ages range across groups, with 21-25 (26%) and 31-35 (25%) most represented. Participants come from diverse areas in Delhi, with Central Delhi (21%) leading. Occupationally, students (38%) and non-government employees (31%) are the largest groups. Educational backgrounds vary, with 43% holding undergraduate degrees. Family annual income ranges from below 200,000 (6%) to 1,000,000 and above (32%) INR. Online beauty product shopping frequency is high, with 24% engaging several times a week and 20% several times a month.

Table 1
Demographic Profiles (Source: Created by the Author)

Characteristics	Classification	Frequency	Percentage
Gender	Male	139	36%
	Female	246	64%
Age	16-20	86	23%
	21-25	101	26%
	26-30	48	12%
	31-35	96	25%
	36-40	35	9%
	41-45	11	3%
	46-50	8	2%
Region	North Delhi	75	20%
	South Delhi	82	21%
	East Delhi	71	19%
	West Delhi	77	20%
	Central Delhi	80	21%
Occupation	Government Employee	17	4%
	Non-Government Employee	121	31%
	Student	147	38%
	Other	8	2%
	Housewife	53	14%
	Own Business	18	5%
	Part Time Job	21	5%
Education Level	Doctoral	42	11%
	Post-Graduation	92	24%
	Graduation	166	43%
	Professional Degree	69	18%
	Others	15	4%
Family Yearly Income (in Rs.)	Below 200000	23	6%
	200001 - 500000	109	28%
	500001 - 1000000	129	34%
	1000000 and above	124	32%
Frequency online shopping for beauty products	Never	39	10%
	Rarely	42	11%
	Once or twice in a week	62	16%
	Once or twice in a month	73	19%
	Several times a month	77	20%
	Several times a week	92	24%

Measurement Model Assessment

Before analyzing hypotheses, the measurement model's validity was assessed to ensure measures accurately represent theoretical constructs. Cronbach's Alpha (0.728-0.952) and composite reliability (0.835-0.951) confirmed internal consistency (Al-Saedi et al., 2020). Convergent validity, whether multiple items measure the same concept, was evaluated through factor loadings and average variance extracted (AVE). All factor loadings exceeded 0.7 (Al-Saedi et al., 2020), and AVE values ranged from 0.718 to 0.865, exceeding the recommended 0.5 threshold (Al-Saedi et al., 2020). These results confirm convergent validity.

Table 2

Measurement Model Results (Source: SmartPls output)

Construct	Items	Loadings	Cronbach's alpha	Composite reliability (rho_c)	Average variance extracted (AVE)
Environmental Consciousness	EC1	0.952	0.764	0.835	0.718
	EC2	0.728			
Effort Expectancy	EE1	0.875	0.892	0.933	0.822
	EE2	0.933			
	EE3	0.910			
Facilitating Conditions	FC1	0.841	0.808	0.910	0.834
	FC2	0.856			
Performance Expectancy	PE1	0.862	0.867	0.917	0.787
	PE2	0.894			
	PE3	0.906			
Online Purchase Intention	PI1	0.925	0.831	0.897	0.745
	PI2	0.862			
	PI3	0.799			
Perceived Value	PV1	0.913	0.922	0.951	0.865
	PV2	0.935			
	PV3	0.942			
Social Influence	SI1	0.936	0.793	0.904	0.826
	SI2	0.880			

Discriminant validity, ensuring constructs are distinct, was assessed using the HTMT ratio (Al-Saedi et al., 2020). All values in Table 3 are below the recommended threshold of 0.9, confirming discriminant validity.

Table 3
Heterotrait-monotrait ratio (HTMT) – Matrix (Source: SmartPls output)

	Effort Expectancy	Environmental Consciousness	Facilitating Conditions	Online Purchase Intention	Perceived Value	Performance Expectancy	Social Influence
Effort Expectancy							
Environmental Consciousness	0.703						
Facilitating Conditions	0.023	0.060					
Online Purchase Intention	0.574	0.420	0.077				
Perceived Value	0.480	0.303	0.127	0.841			
Performance Expectancy	0.868	0.832	0.023	0.594	0.449		
Social Influence	0.539	0.542	0.055	0.513	0.463	0.560	

Structural Model Assessment

The structural model, analyzing the relationships between variables, was assessed using bootstrapping (5000 resamples). R-squared values indicate model quality (Memon et al., 2021). Online Purchase Intention: R-squared of 0.575 suggests the model explains 57.5% of variation in individuals' intent to buy online. This signifies a strong explanatory power. Perceived Value: R-squared of 0.303 indicates the model explains 30.3% of variation in perceived value. This highlights moderate explanatory power. These findings demonstrate the model's ability to account for Online Purchase Intention and shed light on the factors influencing it. Table 4 and Figure 2 provide further details on hypothesis testing within the structural model.

Table 4
Hypotheses Testing Results (Source: SmartPls Output)

Hypothesis	Relationship	Beta Coefficient	Standard Error	T statistics	P values	Decision
H1	Environmental Consciousness x Performance Expectancy -> Perceived Value -> Online Purchase Intention	0.100	0.052	1.938	0.053	Rejected
H2	Environmental Consciousness x Effort Expectancy -> Perceived Value -> Online Purchase Intention	-0.137	0.059	2.314	0.021	Accepted
H3	Environmental Consciousness x Social Influence -> Perceived Value -> Online Purchase Intention	-0.050	0.038	1.317	0.188	Rejected
H4	Environmental Consciousness x Facilitating Conditions -> Perceived Value -> Online Purchase Intention	-0.111	0.052	2.161	0.031	Accepted

Hypothesis testing revealed complex relationships between environmental consciousness and factors influencing online purchase intentions for sustainable beauty products.

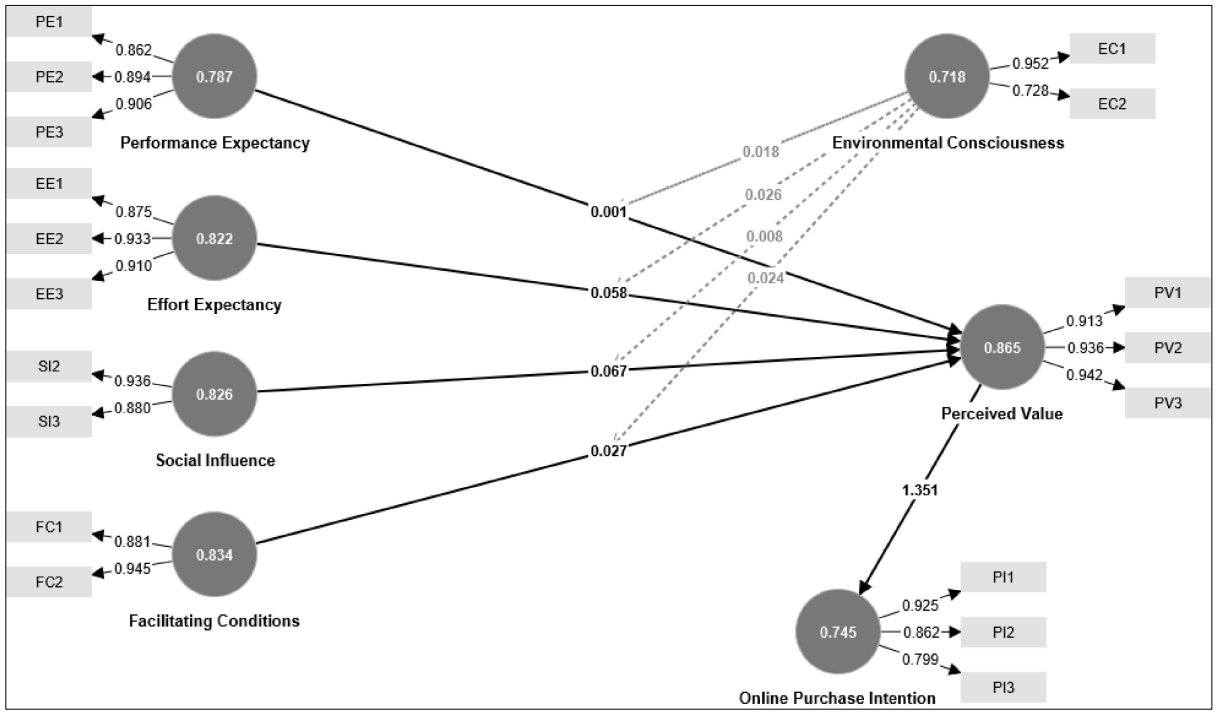
- H1 (rejected): No significant link found between environmental consciousness and performance expectancy, suggesting it doesn't influence perceived value or purchase intention.

- H2 (accepted): A negative relationship exists between environmental consciousness and effort expectancy. Higher awareness prompts individuals to seek easier technology, positively impacting perceived value and purchase intention.
- H3 (rejected): No significant connection established between environmental consciousness and social influence, indicating peer pressure has limited impact on purchase decisions in this context.
- H4 (accepted): Environmental consciousness negatively correlates with facilitating conditions. When access to information, user-friendly platforms, and sustainable practices are limited, purchase intention declines.

These findings highlight the nuanced influence of environmental consciousness. While it may not directly drive technology adoption for its perceived ease or social desirability, it emphasizes the importance of user-friendliness and eco-conscious practices in facilitating sustainable online beauty consumption.

Figure 2

Showing Average Variance Extracted (AVE), Outer Loadings, and F-Square (SmartPls Graphical Output)



Discussion of Results

This study explores the complex interplay between environmental awareness, perceived value, and the intent to buy online, focusing on the mediating roles of Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions. The hypothesis H1, linking Performance Expectancy as a mediator between environmental consciousness and online purchase intent, was disproven (p-value: 0.053), suggesting its minimal role in this relationship. Contrarily, H2 was confirmed, showing Effort Expectancy as a significant mediator. As environmental consciousness increases, online purchase intent decreases if shopping is seen as burdensome (beta: -0.137), highlighting the need for a user-friendly online shopping experience. H3, positing Social Influence as a mediator, was invalidated (p-value: 0.188), indicating its limited influence in this context. H4 was validated, revealing the crucial role of Facilitating Conditions as mediators; hindrances in online shopping reduce purchase intent among environmentally conscious

consumers (beta: -0.111). These results emphasize the importance of considering Effort Expectancy and Facilitating Conditions in promoting online shopping to environmentally aware consumers, while noting the lesser impact of Performance Expectancy and Social Influence in this setting.

Implications

Theoretical Implications

This study redefines the impact of environmental consciousness on online shopping intent, challenging traditional views and emphasizing new factors. The dismissal of hypothesis H1 reveals that environmental awareness does not directly boost online purchase intent through perceived performance benefits, calling for a deeper understanding of what drives eco-conscious shopping. The validation of H2 and H4 highlights the pivotal roles of Effort Expectancy and Facilitating Conditions in this dynamic, underscoring the importance of convenience and supportive online shopping environments for eco-conscious consumers. Conversely, the rejection of H3 questions the influence of social factors, suggesting that peer endorsements might be less impactful for these consumers than previously thought.

Practical Implications

This study highlights key strategies for businesses targeting eco-conscious consumers online. Key findings suggest prioritizing Effort Expectancy and Facilitating Conditions by simplifying online shopping and enhancing user experience, rather than focusing on traditional performance benefits. This approach, emphasizing convenience and support, is more appealing to eco-conscious shoppers. However, the study also indicates that leveraging social influence in marketing may be less effective for this demographic. Effective engagement with these consumers requires aligning business practices with their values and preferences, which includes investing in user-friendly platforms, easy navigation, efficient checkout processes, and strong customer support. Such tailored e-commerce environments cater to the specific needs of eco-conscious consumers, fostering sustainable and appealing online shopping experiences.

Conclusion

This research provides key insights into how environmental consciousness affects online shopping intentions, focusing on the roles of Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions. The study challenges the idea that environmental awareness directly boosts online purchases through perceived performance, calling for a deeper understanding of eco-conscious shopping behaviors. It confirms the crucial role of Effort Expectancy and Facilitating Conditions as mediators, emphasizing convenience and support as vital for eco-conscious consumers. Conversely, the limited impact of social endorsements, indicated by the rejection of H3, suggests peer influence is less significant in this context. While informative, the study has limitations like potential social desirability bias and limited generalizability. Future research should consider cultural differences, additional factors, various product categories, changing e-commerce trends, and practical applications to further understand eco-conscious consumer behavior.

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