

IMPACT OF ONLINE RECOMMENDATION ON PURCHASE BEHAVIOUR OF GREEN APPAREL ON GEN Z IN AHMEDABAD

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²Research Guide

Abstract

The quick growth of e-commerce and the rising awareness of environmental sustainability in the current digital era have changed how consumers shop. Generation Z is one of the most digitally active and ecologically sensitive consumer groups on the market. Examining how internet recommendations for eco-friendly clothing affect Gen Z customers' purchasing decisions is the goal of this planned study. Green gear, which stands for clothing made ethically and sustainably, is being marketed more and more through influencer marketing, online reviews, and digital platforms. The study will look into how things like ecological concerns and trust in online recommendations affect Gen Z's propensity to buy eco-friendly clothing. Online surveys that are structured will be used in a quantitative research strategy. It was found that there were many factors but engagement in sustainable fashion issues having the most impact, credibility was the best predictor, whereas information novelty had no discernible impact on Gen Z's purchasing of green apparels. This study will give marketers important information for creating digital communication plans that will encourage Gen Z consumers to buy eco-friendly clothing.

Key words: Green Apparels, Ecological concerns, Online Recommendations, Gen Z, Purchase behavior

1. INTRODUCTION

Environmental sustainability concern has spread around the world. One of the most resource-intensive and polluting industries in the world is the clothing business. About 10% of carbon emissions worldwide and 20% of water contamination are caused by it. Polyester and nylon, two non-biodegradable textiles made with dangerous chemicals, exacerbate environmental damage. Fast fashion's waste and quick production exacerbate sustainability issues, while cotton growing consumes 3% of the world's arable land and uses excessive amounts of pesticides.

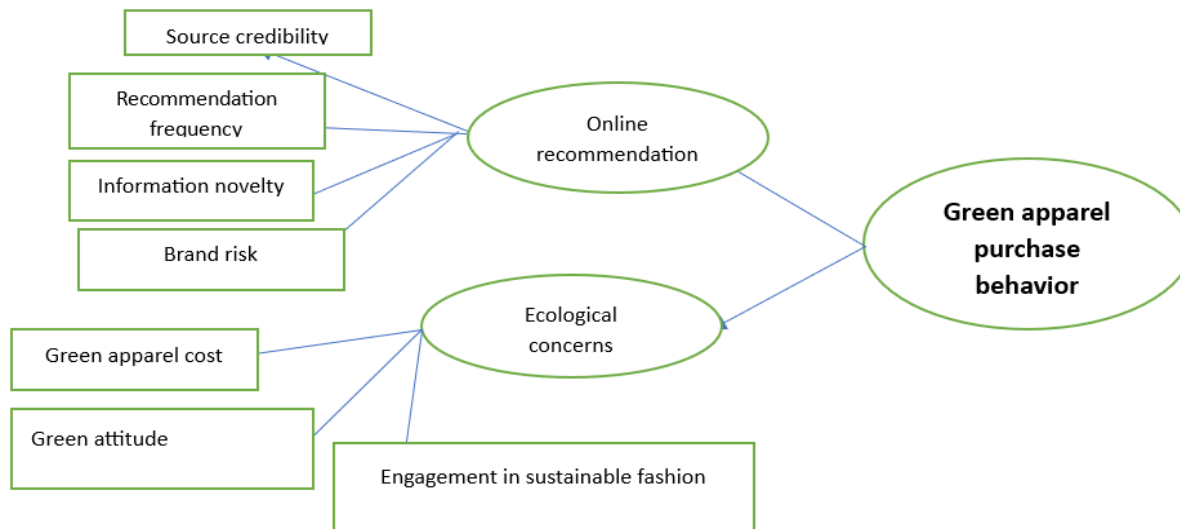
As a result, the idea of "green apparel" has surfaced, which includes clothing made with eco-friendly production methods, sustainable materials, and fair-trade principles. Sustainable techniques are used in all phases of production, from design to packing, but they are not uniformly implemented across departments, according to research on green clothes manufacturing (Jain & Jacob Joseph Kalapurackal, 2023). The global market for sustainable fashion was estimated to be worth \$7.8 billion in 2023 and is expected to expand at a compound annual growth rate (CAGR) of 22.9% to reach \$33.05 billion by 2030.

It's vital to understand the importance of the environmental friendly apparels for effective marketing strategies (Zhenga & Ting Ch, 2014). One of the main forces for this shift among the different customer segments is Generation Z. Born between 1997 and 2012, this generation is distinguished by its increased environmental awareness and digital nativity.

Generation Z is unique among consumer groups in that it is both environmentally sensitive and tech-savvy. Research shows that 82% of Gen Z consumers are swayed by online suggestions, such as peer reviews and influencer endorsements, and 65% of them take product sustainability into account when making purchases, members in this group mainly rely on social media, online platforms, and influencer content. personalisation is the fast-growing trends that may justify a future extension (Amir Hossein Nabizadeh, Hamed N. Rafsanjani, & Rajiv Ratn Shah, 2020).

Online recommendations, such as peer suggestions, influencer endorsements, and reviews, are very important in influencing Gen Z's purchasing decisions, especially when it comes to eco-friendly clothing buying behaviour. Due to the change in the technology and the personalised advertising, the algorithm based product suggestions amplify impulsivity (Sushant Kumar a & Rambalak Yadav, 2021). When browsing, customers are more receptive to tailored suggestions than when making decisions (Shang, et al., 2023). The semantic-expansion method greatly enhanced the recommendations for personalized knowledge (Ting-Peng Liang, , Deng-Neng Chen , & Yi-Cheng Ku, 2007). The purpose of this study is to investigate how online recommendations affect Ahmedabad Generation Z's purchasing decisions about eco-friendly clothing. Through an analysis of variables like brand risk, information novelty, recommendation frequency, and source credibility, green attitude green apparel cost and engagement in sustainable fashion, the study aims to shed light on how online influences may affect sustainable fashion consumption trends. (fig 1)

Fig 1



2. LITERATURE REVIEW

Consumers' sustainable choices are greatly influenced by a number of factors, the competency and relatedness are the critical mediators between recommendations novelty and purchase intentions (Li Zhao, Bing Fu , & Sha Bai, 2025). Environmentally conscious people are more likely to support companies that share their beliefs and form favourable opinions on eco-friendly apparel. The positive contributors about the attitude, subjective norms and the perceived behavioural control shown that the higher income has increased the likelihood of the buying green apparels (Linh Hoang Nguyen , Mai Thi Tuyet Nguyen, & Hung V, 2019).

Increasing consumer awareness of pollution, waste production, and resource depletion has prompted them to make more conscientious purchases. Green clothing adoption helps to lessen the carbon footprint of the fashion industry, and young consumers are beginning to see sustainable fashion as an essential component of their identity and way of life. Gen Z consumers' green apparel choices are influenced by awareness of environmental impacts, such as pollution and resource depletion. According to the study, Indian teenagers' purchasing decisions for eco-friendly clothing were mostly impacted by their prior eco-friendly behaviour (Khare & Amrut Sadachar, 2016). Online recommendations, reviews, and social media content further guide their decisions, encouraging responsible and sustainable purchasing behaviour. learns user interests dynamically over time using deep clustering, RNN, and attention methods. By tackling problems like data sparsity, cold start, and shifting user interests, this enables the system to more precisely suggest solutions that fit individual needs, improving personalization and user happiness (Wang, Tiantian Zhang , Tianqiao Xue, Yu Lu, & Sang-Gyun Na, 2019). Gen Z consumers favour eco-friendly apparel over traditional selections due to their knowledge of the environment.

Research indicates recommendation helps in trouble of the searching and the selecting the information's and it suggest the information's depending in the personal information's but it has always the concerns of the privacy also entails that the perceived benefits (Kim & Seongcheol Kim, 2018) . Four main themes impact the purchase of green clothing: consumer behaviour, circular economy activities, awareness, and impediments. Values, awareness, and knowledge influence purchases, but high costs, scarcity, and low perceived fashion ability continue to be significant obstacles, the study found (Khan, Badghish, Kaur, Sharma, & Dhir, 2022). The affordability, ecological concerns, and a sense of responsibility have also shaped the belief and attitudes toward green apparel (Juthamon Sithipolvanichgul, Fahad Asmi, Anushree Tandon, Muhammad Azfar Anwar, & Amandeep Dhir, 2022). Gender and the income plays a significant role in the purchase of the green apparel (Sushant Kumar a & Rambalak Yadav, 2021). Gen Z's decisions for eco-friendly clothing, collaborative filtering approach are accurate for the better efficiency (Leea & Peter Brusilovsky, 2017) . The marketer and government can involve the individual concerns for the sustainability of the environment for marketing there products as the consumer may feel good by wearing it showing their social responsibility, also the role of generation Z in purchase intension of green apparel as they are the youth of the nations and can strive to the sustainability (Pandey & Pinnika Syam Yadav, 2023). Also updated offline to reflect market trend, while real time updates also give the preference idea to the individuals (Danafa, Felix Becker, Xiang Song, Bilge Atasoy, & Moshe Ben-Akiva, 2019) .

The precise effect of these online cues on environmentally friendly buying habits is still not well understood, though. In order to

fill this gap, the following theories are put forth we try to test the relationship between the two important factors which are the ecological balance and the online recommendation on the purchase intention of the green apparel on the generation z consumer of Gujarat. we expect to see the finding pertaining to these hypothesis

H1: The purchase intension of the green apparel is positively associated with the ecological balance

H2: The purchase intension of the green apparel is positively associated with the online recommendation.

Table 1

Reliability Statistics	
Cronbach's Alpha	N of Items
.949	35

3. METHODOLOGY

3.1 Measurement scale

To fit the research environment, all of the measurement scales used in this study were self-constructed. Source credibility, information novelty, brand risk, recommendation frequency, green apparel, green attitude, engagement in the sustainable fashion were among the components. Every construct was assessed using a 5-point Likert scale, with 1 denoting "strongly disagree" and 5 denoting "strongly agree." The scales' reliability was evaluated using Cronbach's Alpha, which produced an outstanding internal consistency score of 0.949 over 35 items. (Table 1)

Table 2

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
CV	.069	226	.011	.988	226	.054

a. Lilliefors Significance Correction

3.2 Data collection

The study concentrated on Ahmedabad's Generation Z customers who buy eco-friendly clothing online. Data about eco-friendly fashion was gathered using a structured questionnaire on social media and online platforms. 226 valid replies were gathered from the total number of respondents contacted, making up the final dataset for analysis. Kolmogorov-Smirnov and Shapiro-Wilk tests were used to evaluate the normality, Kolmogorov-Smirnov test (0.069, $p = 0.011$) reveals a small departure from normalcy, although the Shapiro-Wilk test (0.988, $p = 0.054$) suggests that the data is normally distributed. The use of parametric statistical analyses in later tests is supported by the data's general ability to be regarded as sufficiently normal. (Table 2)

Table 3

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.927
Bartlett's Test of Sphericity	Approx. Chi-Square	3372.050
	df	435
	Sig.	.000

3.3 Measurement procedure

For statistical analysis, the study used SPSS to validate the research model. To verify construct validity and determine the measurement items' underlying structure, factor analysis was performed. The Kaiser-Meyer-Olkin (KMO) value of 0.927 and Bartlett's test of sphericity ($\chi^2 = 3372.050$, $df = 435$, $p < 0.001$) suggested the data were highly suited for factor analysis. High internal consistency was proven by reliability testing (Cronbach's Alpha = 0.949). Multiple regression analysis was utilized to investigate the associations between constructs because the data were roughly normally distributed. This ensured that the scales were reliable and valid for testing hypotheses. (Table 3)

4. RESULT

To investigate the impact of four constructs that is source credibility, recommendation frequency information novelty and brand risk on to see the purchasing behaviour of the green apparels a multiple regression analysis was performed. Overall, the model explained 47.9% of the variance in Purchase behaviour ($R^2 = 0.479$, Adjusted $R^2 = 0.470$) and was significant ($F(4, 221) = 50.89$, $p < 0.001$). Analysis of the coefficients revealed that Purchase behaviour was significantly predicted positively by source credibility ($\beta = 0.338$, $p < 0.001$), recommendation frequency ($\beta = 0.259$, $p < 0.001$), and Brand Risk ($\beta = 0.174$, $p = 0.005$), with Credibility having the biggest effect. Because Novelty ($\beta = 0.098$, $p = 0.174$) was not a significant predictor, it did not make a substantial contribution to the model. According to these findings, green apparels purchasing behaviour is highly influenced by credibility, recommendation frequency, and brand risk with source credibility serving as the most significant predictor. (Table 4)

The impact of green attitude, green apparel, and engagement in sustainable fashion on green apparels purchase behaviour was investigated using multiple regression analysis in order to test the second presented hypothesis. The model explained 70.9% of the variance in purchase intention ($R^2 = 0.709$, Adjusted $R^2 = 0.705$) and was statistically significant ($F = 180.220$, $p < 0.001$). Engagement in sustainable fashion ($\beta = 0.511$, $p < 0.001$) was the most significant predictor, followed by green attitude ($\beta = 0.222$, $p < 0.001$) and green apparel ($\beta = 0.195$, $p = 0.002$), according to the research, which showed that all predictors had a positive and substantial effect on green purchase intention. (Table 5)

Table 4

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.692 ^a	.479	.470	.56163

a. Predictors: (Constant), BrCV, ORCV, CCV, NCV

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	64.209	4	16.052	50.890	.000 ^b
	Residual	69.710	221	.315		
	Total	133.919	225			

a. Dependent Variable: PCV

b. Predictors: (Constant), BrCV, ORCV, CCV, NCV

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.325	.216		1.502	.135
	CCV	.390	.076	.338	5.101	.000
	ORCV	.244	.059	.259	4.128	.000
	NCV	.096	.070	.098	1.364	.174
	BrCV	.180	.064	.174	2.823	.005

a. Dependent Variable: PCV

5. FINDINGS AND THE CONCLUSIONS

The analysis found that a number of factors had a major impact on consumers' decisions to buy green apparel. Green attitudes, green apparel cost, and engagement in sustainable fashion were all positively correlated with purchase intention, with the engagement in sustainable fashion issues having the most impact. Likewise, brand risk, Recommendation frequency, and source credibility all had a favourable influence on customer buying behaviour; credibility was the best predictor, whereas information novelty had no discernible impact. The company should focus on the improving the trust and the satisfactions by understanding the people (Shen, 2013). These results collectively provide credence to the assumptions put forth, emphasizing the critical role that customers' attitudes, concerns, perceptions of value, and creditable information sources have in influencing their purchasing decisions for eco-friendly clothing. Overall, the findings highlight how crucial consumer attitudes, green clothing, awareness, and

trustworthy recommendations are in influencing sustainable buying choices.

Table 5

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.842 ^a	.709	.705	.41904

a. Predictors: (Constant), ESFCV, GATCV, GACV

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	94.937	3	31.646	180.220	.000 ^b
	Residual	38.982	222	.176		
	Total	133.919	225			

a. Dependent Variable: PCV

b. Predictors: (Constant), ESFCV, GATCV, GACV

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.336	.138		2.438	.016
	GACV	.208	.066	.195	3.152	.002
	GATCV	.216	.058	.222	3.736	.000
	ESFCV	.479	.050	.511	9.580	.000

a. Dependent Variable: PCV

6. LIMITATION AND FUTURE SCOPE

The current study uses cross-sectional data gathered using a convenience sample technique and is restricted to a particular city. These elements might limit how broadly the results can be applied. To confirm and strengthen the validity of the present findings, future studies could expand the analysis to several cities or geographical areas. Furthermore, qualitative research methodology may provide more in-depth understanding of the attitudes and driving forces of customers regarding eco-friendly clothing. To provide a more thorough knowledge of sustainable consumption patterns, future research might also look at including actual customer behaviour rather than just buy intention.

FUNDING

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DISCLOSURE OF CONFLICTING INTERESTS

The authors state that none of the work described in this study could have been influenced by any known competing financial interests or personal relationships.

ACCESS TO DATA

On request, data will be made available.

REFERENCES

- [1] Linh Hoang Nguyen , Mai Thi Tuyet Nguyen, & Hung V. (2019). Materialistic values and green apparel purchase intention among young Vietnamese consumers. *Young consumers*.
- [2] Amir Hossein Nabizadeh, J. P., Hamed N. Rafsanjani, & Rajiv Ratn Shah. (2020). *Learning path personalization and recommendation methods: A survey of the state-of-the-art*. Elsevier.
- [3] Danafa, M., Felix Becker, Xiang Song, Bilge Atasoy, & Moshe Ben-Akiva. (2019). Online discrete choice models: Applications in personalized recommendation. *Elsevier*.
- [4] Iftikhar Alam, Shah Khusro , & Mumtaz Khan. (2021). *Personalized content recommendations on smart TV: Challenges, opportunities, and future research directions*. Elsevier.
- [5] Jain, S., & Jacob Joseph Kalapurackal. (2023). *A Systematic Review of green apparel manufacturing*. Environmental Research, Engineering and Management .
- [6] Juthamon Sithipolvanichgul, Fahad Asmi, Anushree Tandon, Muhammad Azfar Anwar, & Amandeep Dhir. (2022). Drivers of green apparel consumption: Digging a little deeper into green apparel buying intentions. *Wiley*.

- [7] Khan, S. J., Badghish, S., Kaur, P., Sharma, R., & Dhir, A. (2022). What motivates the purchasing of green apparel products? A systematic review and future research. *Wiley*.
- [8] Khare, A., & Amrut Sadachar. (2016). Green apparel buying behaviour: A study on Indian youth. *Wiley*.
- [9] Kim, M. S., & Seongcheol Kim. (2018). *Factors influencing willingness to provide personal information for personalized recommendations*. Elsevier.
- [10] Leea, D. H., & Peter Brusilovsky. (2017). Improving personalized recommendations using community membership information. *Elsevier*.
- [11] Li Zhao, Bing Fu, & Sha Bai. (2025). *Understanding the Influence of Personalized Recommendation on Purchase Intentions from a Self-Determination Perspective: Contingent upon Product Categories*. Theoretical and applied electronic commerce research.
- [12] Pandey, M., & Pinnika Syam Yadav. (2023). Understanding the role of individual concerns, attitude, and perceived value in green apparel purchase intention; the mediating effect of consumer involvement and moderating role of generation Z&Y. *Elsevier*.
- [13] Shang, Q., Jialiang chen, Huijain fu, Cuicui wang, Guanxiang Pei, & Jai jin. (2023). "Guess You Like It" – How personalized recommendation timing and product type influence consumers' acceptance: An ERP study. *Elesvier*.
- [14] Shen, A. (2013). Recommendations as personalized marketing: insights from customer experiences. *Emeralds, Journal of Services Marketing*.
- [15] Shrestha, d. S. (2023). *Exploring the impacts of technology and emotion on compulsive*. Juni khyat.
- [16] Sushant Kumar a, & Rambalak Yadav. (2021). *The study aims to investigate the impact of shopping motivation on consumers' intention to buy green apparel*. Elsevier.
- [17] Ting-Peng Liang, Y.-F. Y., Deng-Neng Chen, & Yi-Cheng Ku. (2007). *A semantic-expansion approach to personalized knowledge recommendation*. Elsevier.
- [18] Wang, K., Tiantian Zhang, Tianqiao Xue, Yu Lu, & Sang-Gyun Na. (2019). *E-commerce personalized recommendation analysis by deeply-learned clustering*. Elsevier.
- [19] Zhenga, Y., & Ting Ch. (2014). *Factors influencing purchase intention towards environmentally friendly apparel: an empirical study of US consumers*. International Journal of Fashion Design, Technology and Education.