AN EMPIRICAL STUDY ON GREEN APPAREL BUYING BEHAVIOR AMONG YOUTH FEMALES WITH SPECIAL REFERENCE TO UTTAR PRADESH

Thesis Submitted for the Award of the Degree of

DOCTOR OF PHILOSOPHY

in

Management

By

Aditi Chaudhary

12106534

Supervised By

Dr. Shabnam Gulati (27187)

Marketing (Associate Professor)

Lovely Professional University

LOVELY PROFESSIONAL UNIVERSITY, PUNJAB

2025

DECLARATION

I, hereby declared that the presented work in the thesis entitled **"An Empirical Study on Green Apparel Buying Behavior Among Youth Females with Special Reference To Uttar Pradesh**" in fulfilment of degree of **Doctor of Philosophy (Ph.D.)** is outcome of research work carried out by me under the supervision of **Dr. Shabnam Gulati**, working as Associate Professor, in the Mittal School of Business, Lovely Professional University, Punjab, India. In keeping with general practice of reporting scientific observations, due acknowledgements have been made whenever work described here has been based on findings of other investigator. This work has not been submitted in part or full to any other University or Institute for the award of any degree.

Aditi Chaudhary
12106534
Mittal School of Business
Lovely Professional University
Punjab, India

CERTIFICATE

This is to certify that the work reported in the Ph. D. thesis entitled **"An Empirical Study on Green Apparel Buying Behavior Among Youth Females with Special Reference To Uttar Pradesh**" submitted in fulfillment of the requirement for the award of degree of **Doctor of Philosophy (Ph.D.)** in the Mittal School of Business, is a research work carried out by **Aditi Chaudhary**, **12106534**, is bonafide record of his/her original work carried out under my supervision and that no part of thesis has been submitted for any other degree, diploma or equivalent course.

Dr. Shabnam Gulati
Associate Professor
Mittal School of Business
Lovely Professional University

ABSTRACT

The global fashion industry is undergoing a significant transformation as concerns about sustainability and environmental impact become increasingly prominent. India, a leading producer of textiles and apparel, is also witnessing a growing demand for sustainable fashion. The increasing concern for environmental sustainability has significantly impacted consumer behavior, particularly in the fashion industry, leading to a greater focus on green apparel – clothing produced with minimal environmental impact. Young consumers, particularly females, are emerging as significant drivers of this change due to their increasing awareness of environmental issues and their influences on fashion trends (Ghazali et al., 2019; Shankar, 2024). The country's demographic dividend, which includes a large youth population, presents a significant opportunity for promoting sustainable consumption. This Ph.D. thesis examines the green apparel buying behavior of youth females in Uttar Pradesh, an essential demographic that plays a significant role in shaping future consumption trends. The research aims to identify the key factors driving the adoption of green apparel and analyze the relationships between these factors and green apparel buying behavior.

With the evolution of green apparel, the term "Green Apparel" has grown substantially over the last several decades, from a niche focus on eco-friendly materials to a holistic approach that incorporates ethical production, circular economy concepts, and consumer responsibility. The change in consumer behavior also contributes to the evolution of green apparel. Few previous studies have highlighted the need for green apparel. Different antecedents have been studied in various contexts. The study of the dimensions of a particular construct is very important because it helps the researcher to know how a particular construct is influenced by different dimensions. However, the literature and research gap explored in the form of the conceptual framework of Green Apparel Buying Behavior on the basis of the relevant determinants. The proposed integrated model of Green Apparel Buying Behavior has been established by proposing the relationships between seven latent constructs i.e. five independent variables (fashion consciousness, variety-seeking behavior, consumer innovativeness, physical product attributes, and attitude), one mediating variable (environmental concern) and one moderating variable (demographic variable - age).

Furthermore, the model proposes a direct and indirect relationship between antecedents and Green Apparel Buying Behavior. The present study focuses on the antecedents of Green Apparel Buying Behavior among youth female shoppers in Uttar Pradesh. The objectives are framed to measure the influence of Green Apparel Buying Behavior among youth female shoppers. The three objectives have been framed for the current study. The first objective is to investigate the relationship between physical product attributes and attitudes on green apparel buying behavior. The second objective examines the direct and indirect impact of fashion consciousness, variety-seeking behavior and consumer innovativeness through environmental concern on green apparel buying behavior among youth female shoppers. The third objective is to investigate the moderating effect of the demographic variable (age) between environmental concern and green apparel buying behavior.

A descriptive research design has been used for the present study. The research design helps to plan a framework of research methods and techniques chosen by a researcher to conduct a study. Youth female shoppers from Tier-II cities of Uttar Pradesh are considered as the target population for the present study. The study emphasized females as they are more fashion prone rather than men. The multistage sampling technique is considered for the purpose of data collection. There are ten Tier-II cities in Uttar Pradesh namely Meerut, Ghaziabad, Aligarh, Agra, Bareilly, Lucknow, Kanpur, Allahabad, Gorakhpur, and Varanasi. The selection of Tier-II cities has been done on the basis of geographical location. Five stores per city i.e. fifty stores are selected on the basis of the availability of green apparel. A sample of 10 respondents per store has been selected on the basis of purposive sampling. Hence, a total of 500 sample size have been selected from ten Tier-II cities of Uttar Pradesh for the present study. The data was collected from October 2023 to July 2024 by using a self-administered questionnaire which consisted of the items of fashion consciousness, variety-seeking behavior, consumer innovativeness, physical product attributes, attitude, environmental concern and green apparel buying behavior. The respondents requested to rate on a point Likert scale i.e. strongly disagree – disagree – neutral – agree – strongly agree.

Consequently, the reliability of constructs used in the structured questionnaire has been tested and Cronbach's alpha (α) values appear in the range from 0.60 to 0.90 for all the

constructs and can be used for further analysis. Advanced Multivariate data analysis techniques like Structural Equation Modeling (SEM) have been used through the Smart PLS 4 software application to achieve the objectives of the present research and for the hypothesis testing. Moreover, the hypothesized relationships among the exogenous and endogenous construct in the proposed model have been tested through SEM by using Smart PLS 4. The proposed measurement model fulfilled the conditions of one-dimensionality, internal reliability, convergent validity (CV) and discriminant validity (DV). Furthermore, the proposed structural model confirmed that significant relationships were established from the entire structural modelling. The conceptual framework derived from the literature is found to be satisfactory. Moreover, the mediation and moderation analysis plays an important role in model development. The mediation analysis provides a mechanism for reviewing the effect of exogenous variables on endogenous variables in a certain conceptual model (Baron & Kenny, 1986). The mediation analysis has been performed to assess the role of environmental concern (mediating variable) in the conceptual framework. The moderation analysis has been executed to measure the role of age (moderating variable) in the conceptual framework.

The findings revealed that physical product attributes and attitude have a significant impact on green apparel buying behavior. On the basis of mean values, the attitude has more impact on green apparel buying behavior than physical product attributes. This implies that youth female Consumers attitudes towards green apparel, including beliefs, perceptions, and overall disposition, have a greater impact on buying decisions than tangible product features like fabric quality, color, design, and durability. Results also revealed that FC, VSB and CI have a direct positive impact on green apparel buying behavior. Also, while EC plays the role of MV, it does not entirely explain the strong direct relationship between FC and GABB, but it partially mediates the relationship between FC and GABB. Similarly, while EC plays a role of MV and impacts buying decisions to some extent, it does not have significant effect on the strong direct link between VSB and GABB, but it partially mediates the relationship between VSB and GABB and while EC plays a role of MV and have some influence on innovative Consumers decisions, it does not significantly affect the strong direct link between CI

and GABB, but it partially mediates the relationship between CI and GABB. These findings suggest that youth female shoppers buy green apparel as they are more fashion-conscious, they are seeking variety in green apparel and they tend to buy green apparel more often than others. They don't need to buy green apparel mostly as they are concerned for the environment but they will buy as they are more fashion-conscious. The importance of EC as an important MV, study explores the green apparel buying behavior among youth females. Moreover, this showed that the conceptual framework best fits the partial mediation effect. Age moderates the relationship between EC and GABB. Hence, age is a significant moderating variable that amplifies the influence of environmental concern on green apparel buying behavior, with an increase in age individuals are more likely to incorporate their environmental concerns into buying decisions. While younger individuals still engage in green buying behavior, their decisions are less influenced by environmental concerns, and other factors may play a larger role. This moderation analysis contributes to a better understanding of how different age groups respond to environmental issues.

From the perspective of academics, the present study contributes to the currently existing literature on the green apparel buying behavior of youth females. The present study provides a conceptual model to differentiate and recognize the antecedents of green apparel buying behavior. In this way, the conceptual model is the first step towards an in-depth understanding of the various antecedents (fashion consciousness, variety-seeking behavior, consumer innovativeness, physical product attributes, attitude and environmental concern) of green apparel buying behavior. The study also reveals various demographic and psychographic factors that differentiate green apparel customers from non-buyers. For instance, young females who are more aware of green apparel, and global fashion trends, buy green apparel, and have a higher level of education are more likely to adopt green apparel. Furthermore, peer groups and social norms emerge as significant determinants, indicating that green apparel buying is not only influenced by individual decisions but also by the social context and perceived societal expectations.

The study contributes significantly to understanding youth female consumer behavior in the context of green apparel, particularly in the underexplored region of Uttar

Pradesh, which represents a mix of traditional and modern values. The study highlights the importance of targeted marketing strategies that resonate with the specific preferences of youth females in this region, such as promoting green apparel through influencer marketing, fashion blogs, and social media campaigns that emphasize eco-friendly fashion as a status and style symbol. The study's findings are useful for marketers and policymakers aiming to promote sustainable fashion among youth female consumers in Uttar Pradesh should focus on combining eco-friendly components with appealing fashion attributes. This includes emphasizing new designs and variety and aligning them with current fashion trends to make green apparel more attractive. Hence, the study concludes that green apparel buying among youth females in Uttar Pradesh is significantly influenced by style, innovation, and the desire for variety, with environmental concerns playing a supporting but not fundamental role. Effective promotion techniques should therefore combine aesthetic appeal with sustainability, making green apparel not just an ethical choice but also a fashionable option for youth consumers.

Keywords: Green Apparel, Green Apparel Buying Behavior, Youth Females, Fashion Consciousness, Variety Seeking Behavior, Consumer Innovativeness, Physical Product Attributes, Environmental Concern, Attitude, Youth Buying Behavior

ACKNOWLEDGEMENT

गुरुर्ब्रह्मा गुरुर्विष्णुः गुरुर्देवो महेश्वरः ।

गुरुः साक्षात् परब्रह्म तस्मै श्री गुरवे नमः ॥

|| Guru is Brahma, Guru is Vishnu, Guru is Maheshwara (Siva),

Guru is the self-revealing limitless Brahma. Salutations to that Shri Guru ||

First and foremost, I would like to thank the **ALMIGHTY** for showering blessings upon me throughout my research journey. My **Tunu, Katu, Batu, Khatu, Radha, Ladoo,** thank you so much for your love, blessings and support throughout my research work. Thank you, **Ganesha, Mata Rani, Shiv Baba, Khatu Shyam**, all the **God Goddesses** and **the Universe** for your blessings. I am always grateful to you.

I would like to thank my lovely family members for making me who I am today. My dear grandfather, **Late Shri Chaudhary Jaipal Singh,** who had a dream for her granddaughter to be a doctorate and who believed that one day I would definitely bring glory to his name and make him proud, and my grandmother, **Late Smt. Birmo Devi** for her heavenly blessings. My father, **Mr. Pawan Chaudhary,** who is my motivator, my mentor, and always there to motivate me, keeps believing in me, who helps me achieve my aim by guiding me, providing me directions throughout my journey and my mother, **Mrs. Sunita Chaudhary,** who provided me with all the comforts and support throughout the journey. Thank you so much, Papa Ji and Mummy Ji. My brother, **Kanishk Chaudhary,** who always keeps saying to me and believing in me that I will do it, keeps sending me his love, care, and support in my research journey and my pet, **Sheru,** who makes me feel happy and keeps loving me every time. I am always grateful to you all for your consistent love, care, and support throughout my PhD journey. Thank you so much for consistently believing in me that one day I will make you all proud. Because of you all, I have accomplished my doctorate Your confidence in me has encouraged me to keep going and working towards achieving my goals, and I am forever grateful to you for all that you have done for me so that I can complete my thesis. I am forever grateful to you for keeping me motivated throughout this journey and for your support in the completion of my research thesis.

I would like to express my sincere gratitude to my supervisor, **Dr. Shabnam Gulati**, for having faith in me that I can do this work, for her continuous support, and motivation. Under her guidance and her generous contribution of knowledge and experience, I was successfully able to complete my thesis in the way it is meant to be done. Her critical and constructive suggestions were the actual driving force behind the successful completion ofmy thesis.

I am also highly thankful to Dr. Rajesh Verma, Dr. Lokesh Jasrai, Dr. Krishan Gopal, Dr. Shamily Jaggi, and Neeraj Bhanot for their valuable inputs during this research work.

I would like to thank my dearest Dr. Manpreet Kailay for helping me and guiding me throughout my research. Your support means a lot to me, and I am always grateful. I would like to thank my friend Jaba for always keeping me in her prayers and appreciating me. I am grateful to every person who prayed for me throughout my academic journey.

Aditi Chaudhary

12106534

TABLE OF CONTENTS

S. NO.	TITLE	PAGE NO.
	PRELIMINARY PAGES	
	Title	I
	Declaration	II
	Certificate	III
	Abstract	IV-VIII
	Acknowledgement	IX-X
	Table of Contents	XI-XV
	List of Tables	XVI
	List of Figures	XVII
	List of Appendices	XVII
	Abbreviations	XIX
CHAPTER 1 - INTRODUCTION		**1 – 25**
1.1	Green Apparel: Concept and Evolution	2 - 3
1.1.1	Evolution of the Term “Green Apparel”	3 – 5
1.2	Globalization of the Apparel Industry	5 – 6
1.3	Green Apparel: In the Indian Context	6 – 7
1.4	Trends Shaping Green Apparel	7 – 9
1.5	Indian Green Apparel Sector	10 – 11
1.6	Green Apparel Buying Behavior	11 - 12

1.6.1	Factors Impacting Green Apparel Buying Behavior	12 – 15
1.7	Major Players in the Green Apparel Sector	15 – 16
1.8	Research Problem	16 - 18
1.9	Rationale of the Study	18 – 20
1.10	Research Model	20 – 21
1.11	Research Hypotheses	21 – 22
1.12	Limitations of the Study	22 – 23
1.13	Conceptual Definitions	23 – 24
1.14	Structure of the Thesis	24 - 25

CHAPTER 2 - REVIEW OF LITERATURE **26 - 79**

Section 1: Key Variables and Conceptual Clarifications **26 - 29**

2.1.1	Fashion Consciousness	26 – 27
2.1.2	Variety Seeking Behavior	27
2.1.3	Consumer Innovativeness	27
2.1.4	Physical Product Attributes	27
2.1.5	Attitude	28
2.1.6	Environmental concern	28
2.1.7	Green Apparel Buying Behavior	28
2.1.8	Demographic Variables	28

2.1.9	Justification for Variable Selection	29
Section 2: Antecedents of Green Apparel Buying Behavior		**29 – 60**
2.2.1	Fashion Consciousness and Its Influence on Green Apparel Buying	29 – 35
2.2.2	Variety Seeking Behavior and Green Consumption Patterns	35 – 39
2.2.3	Consumer Innovativeness and Adoption of Sustainable Fashion	40 – 43
2.2.4	Role of Physical Product Attributes in Sustainable Apparel Choices	43 – 47
2.2.5	Attitude Toward Green Products and Buying Behavior	47 – 51
2.2.6	Environmental Concern and Eco-Friendly Purchase Decisions	51 – 56
2.2.7	Green Apparel Buying Behavior	56 – 60
Section 3: Influence of Demographic Variables on Green Apparel Buying		**60 - 68**
2.3.1	Impact of Age on Green Buying Behavior	60 – 61
2.3.2	Gender and Green Buying Behavior	61 – 63
2.3.3	Income and Green Buying Behavior	63 – 64
2.3.4	Education and Green Buying Behavior	64 – 65
2.3.5	Integrated Impact of Demographics on Green Buying Behavior	65 – 68

Section 4: Contextual Review – Youth, Gender, and Region		**68 - 76**
2.4.1	Youth Buying Behavior	68 – 72
2.4.2	Gender Specific Studies on Consumer Behavior	72 – 74
2.4.3	Regional Context – Uttar Pradesh	74 – 76
Section 5: Research Gap and Research Model		**76 - 78**
2.5.1	Research Gap	76 – 78
2.5.2	Research Model	78 - 79
2.6	Summary	79
CHAPTER 3 - RESEARCH METHODOLOGY		**80 – 104**
3.1	Problem Identification	80 – 81
3.2	Need of the Study	81 – 82
3.3	Objectives of the Study	82 – 83
3.4	Scope of the Study	83
3.5	Research Model	83 – 84
3.6	Research Design	84 – 86
3.7	Sampling Designing Process	86
3.7.1	Target Population	86 – 87
3.7.2	Sampling Frame	87
3.7.3	Sample Unit	87
3.7.4	Sample Size Determination	88 – 89

3.7.5	Sampling Technique	89
3.7.6	Execution of sampling process	89 - 91
3.7.7	Demographic Profile of Respondents	91 – 94
3.7.8	Measurement and Instrument	94 - 95
3.8	Pilot Study	95 – 96
3.9	Validity and Reliability Testing of the Constructs	96 - 101
3.9.1	Validity	96
3.9.2	Reliability	96 - 101
3.10	Summary of Reliability and Validity Process	101
3.11	Sources of Data	101 - 102
3.12	Analysis Technique	102 -103
3.13	Hypothesis Formulation	103 - 104
CHAPTER 4 - DATA ANALYSIS AND INTERPRETATION		**105 - 141**
4.1	Descriptive Analysis	105 – 110
4.2	Structural Equation Modeling – Partial Least Square (PLS)	110 – 122
4.3	Mediation Effects on PLS Path Models	122 – 133
4.4	Moderation Effects on PLS Path Models	133 – 139
4.5	Discussion	139 -140
4.6	Hypotheses Status	141

CHAPTER 5 – FINDINGS, CONCLUSION AND SUGGESTIONS **142 - 158**

5.1	Results and Findings	143 – 147
5.1.1	Physical Product Attributes have a significant effect on Green Apparel Buying Behavior	143
5.1.2	Attitude have a significant effect on Green Apparel Buying Behavior	143
5.1.3	Environmental concern mediates the relationship between fashion consciousness and green apparel buying behavior	144
5.1.4	Environmental concern mediates the relationship between variety seeking behavior and green apparel buying behavior	144 – 145
5.1.5	Environmental concern mediates the relationship between consumer innovativeness and green apparel buying behavior	145 – 146
5.1.6	Age plays a role of moderator between environmental concern and green apparel buying behavior	146 – 147
5.2	Conclusion	147 – 150
5.3	Research Implications	150 – 153
5.3.1	Marketing Implications	150 – 151

5.3.2	Retail and Merchandising Implications	151
5.3.3	Policy Implications	151 – 152
5.3.4	Academic Implications	152 – 153
5.4	Recommendations of the Study	153 - 156
5.4.1	For Marketers and Brands	153 – 154
5.4.2	For Retailers	154 – 155
5.4.3	For Policymakers and NGOs	155
5.4.4	For Researchers and Academic	156
5.5	Limitations of the Study	156 – 158
5.6	Scope for Future Research	158
6	**Bibliography**	**159 – 194**
7	**Appendices**	**195 – 202**
8	**List of Publications**	**203**

LIST OF TABLES

S. No.	Details of Tables	Page no.
3.1	Demographic Profile of Respondents	91 - 92
3.2	Summary of Research Instrumentation	95
3.3	Reliability Analysis of the Instrument	97 - 100
3.4	Summary of Reliability and Validity Process	101
4.1	Descriptive Statistics	105 - 107
4.2	Descriptive Statistics Summary	109 - 110
4.3	Reliability of the constructs	112 - 113
4.4	Factor loadings , VIF, Composite Reliability, Cronbach's Alpha, Average Variance Extracted (AVE)	114 - 116
4.5	Discriminant Validity	117
4.6	Path Coefficients	119
4.7	Summary of Hypothesis Testing	120
4.8	Steps to Present Results of SEM-PLS	124
4.9	Path Coefficients	125
4.10	Total Effects	126 - 127
4.11	Specific Indirect Effects	127
4.12	Mediation Analysis	129
4.13	Model Fit	130
4.14	f-square Values	130
4.15	Path Coefficients	134 - 135
4.16	Hypotheses Status	141

LIST OF FIGURES

S. No.	Details of Figures	Page No.
1.1	Indian Market Apparel Size	19
1.2	Research Model of Green Apparel Buying Behavior	21
2.1	Research Model of Green Apparel Buying Behavior	78
3.1	Research Model of Green Apparel Buying Behavior	84
3.2	Sampling Design Process	86
3.3	Execution of Sampling Process	90
4.1	Measurement Model	113
4.2	Structural Model	118
4.3	Graph Showing Moderation Analysis	136

LIST OF APPENDICES

S. No.	Particulars	Page No.
1	Questionnaire	195 – 202
2	Publications	203

LIST OF ABBREVIATIONS

AVE	Average Variance Extracted
CFA	Confirmatory Factor Analysis
CI	Consumer Innovativeness
CVR	Content Validity Ratio
CR	Composite Reliability
DV	Dependent Variable
DV	Discriminant Validity
EC	Environmental Concern
FC	Fashion Consciousness
f^2	Effect Size
GA	Green Apparel
GABB	Green Apparel Buying Behavior
HOC	Higher Order Construct
HTMT	Heterotrait-Monotrait Ratio
IV	Independent Variable
LV	Latent Variable
LOC	Lower Order Construct
MV	Mediating Variable
MM	Measurement Variable
PLS	Partial Least Square
PPA	Physical Product Attributes
R^2	Coefficient of Determination
SEM	Structural Equation Modelling
SPSS	Statistical Package for Social Science
VAF	Variance Accounted For
VIF	Variance Inflation Factor
VSB	Variety Seeking Behavior
Q^2	Predictive Relevance

CHAPTER – 1

INTRODUCTION

The global fashion industry is undergoing a significant transformation as concerns about sustainability and environmental impact become increasingly prominent. This shift has led to the growth of green apparel, which is clothing made with eco-friendly materials and processes, such as organic cotton, recycled fibers, low-impact dyes, and sustainable manufacturing practices (Anand and Sekhri 2024; Harinaiha et al., 2024;). Unlike conventional fashion, green apparel aims to minimize negative environmental and social impacts through ethical sourcing, reducing water usage, lowering carbon emissions, and promoting fair labor practices (Niinimäki et al., 2020; Patel 2024). India, a leading producer of textiles and apparel, also has a growing demand for sustainable fashion.

Young consumers, particularly females, are emerging as significant drivers of this change due to their increasing awareness of environmental issues and their influence on fashion trends (Ghazali et al., 2019; Shankar 2024). The country's demographic dividend, which includes a large youth population, presents a significant opportunity for promoting sustainable consumption. However, the adoption of green apparel remains relatively low, mostly due to factors such as limited availability, higher prices, and a lack of awareness among mainstream customers (Anand & Sekhri, 2024; Connell, 2011; Kala & Chaubey, 2024). The focus on female youth is particularly relevant as they represent a critical segment in the apparel industry and have significant buying power and trend-setting ability. Their consumption habits are significantly shaped by social factors such as peer influence, social media, and celebrity endorsements, making them more receptive to ethical and sustainable fashion trends (Mcneill and Moore 2015; Shankar 2024; Singh et al., 2024). Given their active engagement with fashion and sustainability, understanding their green apparel buying behavior is crucial for the future growth of this sector.

Despite the growing awareness of sustainability, the adoption of green apparel in India varies across regions. Most existing studies and marketing efforts are focused on metropolitan cities like Mumbai, Delhi, and Bangalore, leaving a gap in understanding the dynamics in other regions, such as Uttar Pradesh (Kapoor & Sondhi, 2023; A. Kumar, 2024). Uttar Pradesh, one of India's largest and most populous states, is uniquely positioned in the apparel market due to its socio-economic diversity and large youth population. Youth females in Uttar Pradesh are influenced by a variety of factors, including cultural norms,

family expectations, economic status, and exposure to global trends through digital media (Kapoor & Sondhi, 2023; M. Kumar, 2024). Furthermore, the state's diverse market, ranging from affluent urban centres like Lucknow and Noida to smaller towns and rural areas, offers both opportunities and challenges for promoting sustainable fashion. While youth in major cities may have greater access to green apparel, those in smaller towns may still prioritize affordability and brand loyalty over sustainability (Chand 2022; Wyrwa et al., 2023). The existing literature highlights the need for region-specific research to understand the drivers and barriers to green apparel consumption in diverse Indian contexts. This study aims to bridge this gap by examining the key factors influencing green apparel buying behavior among female youth females in Uttar Pradesh. The research is expected to provide valuable insights into consumer behavior and contribute to the development of strategies that can promote sustainable fashion in India's youth market (Anand and Sekhri 2024; Kala and Chaubey 2024; Singh et al., 2024).

Understanding the green apparel buying behavior of youth female consumers in Uttar Pradesh is essential for several reasons. First, this demographic segment is expected to play a significant role in promoting sustainable consumption patterns in the coming years (Malik and Joshi 2023; Mishra et al., 2024). Second, insights from this study can assist brands and retailers in developing targeted marketing strategies that resonate with the unique preferences and constraints of this consumer group. Finally, the findings can inform policymakers and sustainability activists about effective ways to promote eco-friendly consumption in one of India's most diverse and populous states (Arora et al. 2023; Sakshi et al., 2024). Given India's commitment to sustainable development goals and the growing global emphasis on responsible consumption, this study is timely and relevant. It not only contributes to the Indian context but also offers practical implications for enhancing green apparel adoption among youth consumers (Agrawal and Pandey 2024; Srividya et al., 2024).

1.1 Green Apparel: Concept and Evolution

Green apparel is defined as clothing that is designed, manufactured, and distributed to reduce environmental impact and promote sustainability. This involves using eco-friendly materials such as organic cotton, recycled polyester, and biodegradable fibers, as well as using processes that reduce energy consumption, chemical use, and water waste (Cho et al., 2024; Khan et al., 2023). The concept extends to the ethical treatment of workers and

transparency throughout the supply chain, representing a holistic approach to sustainability in the fashion industry.

1.1.1 Evolution of the Term "Green Apparel"

The evolution of the term "Green Apparel" has grown over time in response to rising concerns about the environment, sustainable development, ethical production, and the apparel industry's global influence. The concept incorporates eco-friendly techniques throughout the lifecycle of apparel, from manufacturing and designing apparel to consumption and disposal of apparel. Here is an overview of how the term has evolved, supported by citations from relevant studies.

1. **Early Definitions and Concepts (1990s – 2000s)**

The concept of 'Green Apparel' began to emerge in the 1990s, largely influenced by increasing environmental initiatives and concerns about the apparel industry's role in polluting and reducing natural resources. At this stage, the term was mainly related to limiting the usage of toxic chemicals and promoting the use of natural fibers such as organic cotton, hemp, jute, and bamboo. Early research studies, such as (Dutta and Bansal 2024; Fletcher 2013; Karpova et al., 2024) focused on the fashion industry's environmental impact and proposed a shift towards more sustainable practices in the clothing production processes. The first move towards eco-friendly clothing was mostly driven by non-governmental organizations (NGOs) and niche marketplaces that promoted products made from natural or recycled materials. According to (Joergens 2006; Voukkali et al., 2024; Xu et al., 2024), early green apparel initiatives prioritized materials over the entire manufacturing process, with little consideration for social and ethical concerns in the supply chain.

2. **Incorporation of Ethical Production (2000s – 2010s)**

By the early 2000s, the term "Green Apparel" started to expand beyond only eco-friendly materials to include the broader concept of sustainability in fashion. This consists of both environmental and social justice concerns, such as fair salaries, a secure work environment, and labor rights in the apparel sector. Kate Fletcher, an expert in sustainable fashion, described "Green Fashion" as encompassing both ecological integrity and social equity, emphasizing that the term should refer to clothing produced in a way that minimizes its environmental footprints while maintaining ethical production standards (Fletcher, 2013).

The rise of certifications such as Fair Trade, Global Organic Textile Standard (GOTS), and OEKO-TEX mirrored this shift towards a more holistic view of green apparel. As per (Shen et al., 2012), these certifications helped formalize the concept of sustainability in apparel by assuring adherence to both environmental and ethical standards.

3. Contemporary Understanding: Circular Economy and Slow Fashion (2010s – Present)

In recent years, the term "Green Apparel" has grown to reflect a more comprehensive integration of sustainability within the apparel industry. This involves supporting the circular economy principles, which state that things should be intended for reuse, recycling, or biodegradation rather than ending up in the garbage dumps. "Slow Fashion" a term popularized by fashion theorist Kate Fletcher, prioritizes quality over quantity, encouraging fewer, longer-lasting clothes manufactured in an ecologically friendly and ethical manner (Fletcher, 2013). Contemporary definitions of Green Apparel have an emphasis on supply chain transparency, consumer awareness, and accountability. According to (Niinimäki, 2013; Pathak, 2024), green apparel not only include eco-friendly materials but also responsible manufacturing processes, fair consumer practices (such as buying less or using second-hand clothing), and waste reduction strategies such as apparel recycling and upcycling.

4. Technological Advancements and Innovation (2010s – Present)

With advancements in textile technology, the term "Green Apparel" now includes innovations such as biodegradable fabrics, no-waste fashion design, and the use of alternative fibers such as recycled polyester or plant-based materials. (Choi & Cheng, 2015) found that technical innovation plays an important role in making green apparel more accessible and cost-effective, thereby expanding its market reach. Biodegradable and recyclable materials have been essential to the debate over green apparel. The development of fabrics designed from mushroom leather, algae, and other bio-based materials is a forward-thinking approach to sustainability that is changing the whole concept of what constitutes "green" fashion (Pathak, 2024; Sarker & Bartok, 2024; Wolfe, 2024).

5. Consumer-Driven Definitions and Trends (2010s – Present)

The change in consumer behavior also contributes to the evolution of green apparel. Millennials and Generation Z consumers, particularly in cities, prioritize brands that follow

sustainability and ethical production. According to (Mcneill & Moore, 2015), the term "Green Apparel" has gained popularity among consumers who demand fashion businesses be transparent about their environmental effects and labor practices. Increasingly, "Green Apparel" is associated with social movements like environmental campaigns, gender equality, and ethical consumerism. This has widened the scope of the term to include clothing that not only reduces the environmental impact but also promotes broader social justice goals (Hosseini-Motlagh et al., 2024).

Thus, the term "Green Apparel" has grown substantially over the last several decades, from a niche focus on eco-friendly materials to a holistic approach that incorporates ethical production, circular economy concepts, and consumer responsibility. As technological advancements improve and consumers become more eco-conscious, the meaning of green apparel will likely continue to expand, reflecting ongoing changes in both fashion production and consumption. The government has also supported facilitating this transition by launching measures to promote sustainable textile production practices.

1.2 Globalization of the Apparel Industry

The global fashion industry has been criticized for its negative environmental and social impacts, making the shift toward green apparel an important step towards achieving sustainability. Traditional fashion is a resource-intensive industry that consumes large amounts of water, energy, and raw materials and generates a lot of pollution and waste. Green apparel is made from organic fibers, recycled or sustainably sourced materials, and manufactured using sustainable processes to minimize the environmental impact. For example, using organic cotton instead of conventional cotton can reduce water consumption by up to 91% (Ellen MacArthur Foundation, 2017; Guo & Tsinopoulos, 2024). Similarly, using recycled fibers helps in converting textile waste from landfills and reduces the demand for new materials to decrease the overall environmental impact of the fashion industry.

Sustainable fashion often encourages fair trade practices, ensuring that workers are paid fairly and work in safe conditions. This is important for resolving human rights concerns in the fashion supply chain, specifically in low-cost manufacturing nations where labor abuse is common (Rahaman et al., 2024; The Business of Fashion 2022). As a result, green apparel not only benefits the environment but also contributes to social equity and improved labor standards. The increasing global consumer awareness about environmental and social

issues is boosting demand for green apparel. According to (McKinsey & Company report, 2021), 67% of worldwide consumers consider sustainable materials to be a significant factor in their buying decisions, indicating a shift towards more conscious consumption patterns. This led major global fashion brands to incorporate sustainability into their business models, viewing green apparel as a strategic advantage rather than a niche market trend. In India, the importance of green apparel is influenced by both environmental sustainability and socioeconomic factors (Hosseini-Motlagh et al., 2024; Sarker and Bartok 2024). India is a major textile producer, but the textile industry has been associated with significant environmental issues, including water pollution and waste generation. The Indian textile sector contributes 22% of the country's total industrial water pollution, mostly due to the untreated effluent discharge from dyeing units. As a result, the shift to green apparel provides a solution for minimizing these environmental impacts (Centre for Science and Environment (CSE), 2018; Rahaman et al., 2024).

1.3 Green Apparel: In the Indian Context

Green apparel is gaining popularity in India as consumers are becoming more aware and the use of organic cotton, natural dyes, and traditional handloom techniques is increasing, leading to more sustainable methods rather than conventional methods. India is the world's largest producer of organic cotton, accounting for more than 50% of global production (Rahaman et al., 2024; Textile Exchange 2021c). The promotion of natural fibers like organic cotton and hemp helps reduce the use of harmful chemicals, conserve water, and promote soil health, making green apparel an environmentally sustainable choice. Furthermore, social sustainability is also a key driver for green apparel in India. The fashion industry has the ability to improve rural livelihoods and promote traditional crafts, which are often marginalized in the mainstream fashion industry (Pathak, 2024; Wolfe, 2024). Sustainable fashion initiatives that prioritize fair wages and ethical labor practices benefit artisans and small-scale producers, thereby encouraging inclusive growth and rural development. Organizations like "Craftsman" and brands like "FabIndia" and "Anokhi" have effectively integrated green apparel into their business strategies by helping local craftsmen and using eco-friendly materials (Sarker & Bartok, 2024; The Economic Times, 2024). The demand for green apparel is increasing among urban, eco-conscious consumers in India, particularly the younger demographic. According to (The Sustainable Brands Journal, 2022) report, the sustainable market is projected to grow at a compound annual growth rate (CAGR) of 10.6% from 2021 to 2026. The survey by (The Indian Market

Research Bureau, 2022) indicated that 58% of urban youth in India are willing to pay a premium price for eco-friendly and sustainable apparel, indicating a shift in consumer preferences towards green fashion. This trend is encouraging Indian brands to adopt sustainable practices and invest in green apparel production, making it an effective business strategy (Navneel 2021; Rahaman et al., 2024).

Green apparel is not just an environmental necessity, but also a strategic business opportunity for both the global and Indian markets. Increasing regulatory pressures, such as the European Union's "Sustainable and Circular Textiles Strategy" and India's "Sustainable Textiles for Sustainable Development" (SusTex) project are encouraging businesses to adopt sustainable practices (Rahaman et al., 2024; Su et al., 2023). In India, green apparel also aligns with government initiatives like the promotion of "Make in India" and the "Atmanirbhar Bharat" (self-reliant India) campaign, which emphasize sustainable and locally sourced production. By incorporating green apparel into their strategy, Indian textile companies can improve their competitiveness in the global market and contribute to the country's sustainable development goals (Ministry of Textiles, 2021). Overall, the importance of green apparel in the global and Indian context is multi-dimensional, encompassing environmental sustainability, social equity, and economic viability. It represents a holistic approach to addressing the complex challenges faced by the fashion industry, making it an essential component of the sustainable fashion revolution (Hosseini-Motlagh et al., 2024; Sarker and Bartok 2024).

1.4 Trends Shaping Green Apparel

The trends in green apparel focus on eco-friendly materials, ethical supply chains, and transparency in the production process. These trends highlight the fashion industry's growing shift toward sustainability, driven by increasing consumer demand and regulatory challenges (Pathak, 2024; Wolfe, 2024). The adoption of sustainable textiles is a growing trend, with firms utilizing materials like pure cotton, hemp, and recycled materials. This move is intended to reduce the environmental impact, conserve resources, and provide more sustainable alternatives to traditional fabrics. Well-known initiatives include H&M's Garment Recycling Program, which has effectively recycled large volumes of fabric, minimizing textile waste (State of Matter, 2023; Wolfe, 2024). Green Apparel manufacturers prioritize ethical standards, such as fair labor conditions, ethical practices, and eco-friendly responsible sourcing. Bioengineered dyeing processes and bacteria-based

dyes (for example: Colorifix) allow the creation of sustainable colors without harmful chemicals, significantly reducing water and energy use (3DLOOK, 2023; Pathak, 2024). Slow fashion, which emphasizes quality over quantity, is gaining popularity as consumers seek long-lasting and timeless goods. This trend counters the fast fashion model by emphasizing minimalist aesthetics and pushing consumers to buy fewer but higher-quality apparel. This movement lowers consumption frequency and minimizes textile waste (Phatak, 2024; Wolfe, 2024). Many fashion brands are embracing upcycling and recycling as a way to transform discarded materials into valuable items. For example, Patagonia, Beyond Retro, and Urban Outfitters focus on recycling old clothes into fashionable new items. This approach supports the circular fashion economy and reduces overall waste. Therefore, the rise of rental markets and fashion subscription services is changing the way customers access apparel, encouraging a "wear and return" culture instead of ownership. Rent the Runway and My Wardrobe HQ brands are leading the way by reducing the need for excessive production and lowering the environmental impact in the apparel industry (3DLOOK, 2023; Phatak, 2024; State of Matter, 2023).

The integration of AI and digital tools improves fashion sustainability by optimizing production, reducing returns, and forecasting consumer trends. For example, virtual fitting rooms help consumers find the proper size while reducing the carbon footprint involved with multiple shipping cycles. Transparency has emerged as an important factor, with brands such as Everlane and Reformation adopting open disclosure of their supply chains. This transparency enables consumers to make informed decisions, increasing trust in sustainable fashion practices (DSCENE, 2023; Sarker & Bartok, 2024). The European Commission's implementation of digital product passports and strict rules is encouraging brands to improve their sustainable credentials. These regulations are intended to tackle greenwashing and promote true sustainability in the apparel industry (DSCENE, 2023; Karpova et al., 2024). Moreover, technology is revolutionizing green fashion through digital design, 3D printing, and virtual sampling. These innovations enable designers to experiment with new sustainable materials while eliminating the need for physical samples, hence reducing resource use. Another important trend is using blockchain technology for supply chain transparency, which allows consumers to check the status of their garments (Business of Fashion, 2021; Pathak, 2024; Wolfe, 2024).

With increased awareness around animal welfare, the demand for cruelty-free and vegan fashion has increased significantly. Brands such as Stella McCartney and Gucci are

experimenting with plant-based leather substitutes like Pinatex (pineapple leaves) and mushrooms (Henninger et al., 2016a). This trend extends beyond leather to fur, wool, and silk, with innovative alternatives gaining popularity in mainstream fashion (DSCENE, 2023; Fibre2fashion, 2024). Therefore, circular fashion is gaining popularity by emphasizing recycling, upcycling, and apparel longevity. This model aims to create a closed-loop system in which materials are continually utilized rather than discarded. Brands like H&M and Nike have developed take-back initiatives, encouraging consumers to return old apparel for recycling into new apparel, significantly reducing textile waste (State of Matter, 2023; Textile Exchange, 2021b). Zero-waste design techniques, such as pattern-making procedures that reduce fabric waste are increasingly becoming popular. Designers are making outfits that use every inch of the material, leaving no fabric remains. This strategy decreases overall production waste and helps to create a more sustainable manufacturing model (Fletcher, 2013b). Such designers are found in small-scale, handcrafted fashion firms that try to minimize their environmental footprint (Brown Living, 2024; DSCENE, 2023).

Furthermore, advances in bio-fabrication, such as lab-grown leather and spider silk, are setting the stage for a new era of sustainable materials. Bio-fabricated textiles are designed in laboratories to resemble natural fibers while minimizing the environmental impact of traditional textile production (Brown Living, 2024; Fibre2fashion, 2024). Examples include MycoWorks' mycelium-based leather and Bolt Threads' synthetic spider silk, which have drawn attention for their potential to revolutionize green apparel (Business of Fashion, 2021; DSCENE, 2023). Sustainable fashion is also becoming inclusive, with initiatives to incorporate diverse communities in the design and promotion of green apparel. The "Fashion for Good" initiative in Amsterdam emphasizes collaboration among stakeholders including designers, manufacturers, and consumers to find sustainable solutions that are culturally and socially inclusive (Greenpeace, 2011; State of Matter, 2023). Certifications are becoming important for green apparel since they confirm sustainability claims. Brands are increasingly looking for these certifications to certify their products' eco-friendliness and provide consumers with transparency and trust (State of Matter, 2023; Textile Exchange, 2021b). These trends highlight the industry's commitment to sustainability and ethical standards. As more brands adopt these trends, green apparel will continue to become a mainstream element of the global fashion market, promoting an eco-conscious lifestyle for consumers globally (Brown Living, 2024; Fibre2fashion, 2024).

1.5 Indian Green Apparel Sector

The green apparel sector in India has seen a rise in the number of local brands focusing on sustainability, ethical production, and eco-friendly fashion. These companies meet the growing demand for green fashion among eco-conscious consumers by providing products made from organic fibers, natural dyes, and traditional handwoven textiles. No Nasties, founded in 2011, is one of the leaders in India's organic fashion industry. The brand sells only 100% organic, fair-trade, and vegan apparel. No Nasties also supports sustainable consumption by introducing a "buy one, plant one" policy that involves planting a tree for every item sold (No Nasties, 2021). B Label is a sustainable fashion brand owned by the Bombay Hemp Company (BOHECO). The firm specializes in hemp-based apparel, promoting the usage of this environmentally beneficial, long-lasting, and versatile material. Hemp, unlike cotton, uses substantially less water and pesticides, making it a more ecological choice. B Label aims to bring hemp to the forefront of Indian fashion, offering a range of casual and formal wear (BOHECO, 2020). Upasana is a design studio based in Auroville, Tamil Nadu, that specializes in socially responsible and eco-friendly fashion. The brand uses organic cotton, natural dyes, and handloom textiles to support rural weavers and farmers. Upasana's various projects, like "Kapok", a traditional Indian cotton initiative, promote sustainable fashion while conserving India's heritage (Upasana, 2019). Doodlage is a unique Indian fashion brand that converts industry waste into fashionable apparel and accessories. Founded in 2012, the firm combines sustainability and high design by making clothing from discarded textiles and post-production waste. It also uses patchwork, embroidery, and applique techniques, making each outfit unique while minimizing fabric waste (Doodlage, 2021). Anokhi is a Jaipur-based brand known for using traditional hand-block printing processes on organic fabrics. Working with local craftspeople and supporting natural dyes are two ways through which the brand emphasizes sustainable practices. Anokhi's collections emphasize slow fashion, encouraging customers to invest in quality, long-lasting pieces (Anokhi, 2020).

Ethicus, based in Pollachi, Tamil Nadu, was founded in 2009 to develop a sustainable fashion brand based on ethical production principles. The brand uses organic cotton grown on its farms, supports local craftspeople, and promotes transparency throughout the supply chain. It is known for its handwoven sarees, which combine traditional weaving techniques with contemporary design (Ethicus, 2021). Jaypore is a lifestyle brand that curates handcrafted clothes and accessories created by local craftspeople throughout India. The

brand emphasizes sustainable practices by supporting handmade, eco-friendly products and paying fair compensation to artisans. Jaypore's collections often use traditional crafts such as ikat, ajrakh, and chanderi, appealing to conscious consumers seeking culturally rooted fashion (Jaypore, 2020). Okhai is a social company that provides rural craftspeople, primarily women, with long-term livelihood prospects. The firm makes contemporary apparel with traditional Indian crafts like mirror work, embroidery, and handloom weaving. Okhai's business approach is based on sustainability and social responsibility, and revenues are reinvested into community development (Okhai, 2019). Bhaane, a Delhi-based brand, specializes in minimalist clothes created from sustainable materials such as organic cotton and lines. The brand's mission is to encourage "slow fashion" by creating high-quality basics that are adaptable and long-lasting. Bhaane's aesthetic appeals to young urban consumers looking for attractive but environmentally sustainable options (Bhaane, 2020). Grassroot is the sustainable fashion label of renowned Indian designer Anita Dongre. The brand works closely with local artists and weavers to make handcrafted apparel using organic fibers, natural dyes, and handwoven textiles. Grassroots' collections draw inspiration from India's rich craft heritage, combining traditional techniques with contemporary design (Grassroot by Anita Dongre, 2021).

1.6 Green Apparel Buying Behavior

Green apparel buying behavior refers to customers' decision-making processes and actions when purchasing clothing with low environmental and social impacts throughout its lifecycle, from production to disposal (Durrani et al., 2023; Lim and Lady 2023). This behavior includes preferences for apparel manufactured from organic materials, as well as a commitment to buy from brands that follow sustainable and ethical standards (Niinimäki 2010; Shen 2014b; Su et al., 2023). The concept of green apparel revolves around the integration of sustainability and ethical considerations into the clothing production process. It is designed to reduce the environmental impact by reducing the use of harmful chemicals, conserving water and energy, and incorporating recyclable raw materials like organic cotton, hemp, bamboo, and recycled fibers (Guo and Tsinopoulos 2024; Henninger et al., 2016; Shen 2014b). It also emphasizes ethical standards such as fair salaries, safe working conditions, and supply chain transparency (Durrani et al., 2023; Karaosman et al., 2020). Green apparel buying behavior is influenced by various factors including environmental awareness, social norms, perceived personal responsibility, and economic concerns. Younger generations, particularly Millennials and Generation Z, have shown an increased

preference for sustainable fashion, motivated by concerns about climate change, labor exploitation, and animal welfare (Gazzola et al., 2020; Mcneill and Moore 2015).

Today, green apparel buying behavior is characterized by an increasing demand for transparency and accountability from fashion brands. Consumers are not only looking for sustainable products but also assessing brands based on their social and environmental impact. Certification standards have become benchmarks for evaluating the sustainability credentials for green apparel (Fibre2fashion, 2024; Textile Exchange, 2021a). Furthermore, the COVID-19 pandemic has highlighted the importance of sustainable consumption, with many customers becoming more conscious of their purchases and preferring long-lasting, high-quality products over disposable fast fashion (McKinsey & Company report, 2021). As the green apparel market continues to expand, future trends are likely to include innovations in circular fashion (recycling and upcycling of apparel), adoption of digital technologies for sustainable supply chain management, and the rise of rental and resale markets (Brown Living, 2024; Business of Fashion, 2021). This evolution demonstrates a shift from niche market adoption to more mainstream consumer behavior, which is impacted by rising environmental and social awareness. As a result, understanding green apparel buying behavior is essential for organizations to align their strategies with changing consumer expectations and contribute to sustainable development goals (Durrani et al., 2023; Lim and Lady 2023).

1.6.1 Factors Impacting Green Apparel Buying Behavior

There are some factors impacting green apparel buying behavior among youth females in Uttar Pradesh mentioned below:

1. **Rising Environmental Awareness and Conscious Consumption:** The fashion industry being the world's most polluting industry is creating significant environmental degradation through water pollution, carbon emissions, and waste generation (Diandri & Yeshika, 2024; Ellen MacArthur Foundation, 2017). As a result, young consumers are increasingly seeking ecological clothing solutions. However, while global research indicates a positive trend towards green consumption, understanding whether similar awareness and willingness exist among youth females in specific Indian regions, like Uttar Pradesh, is crucial for developing effective strategies for promoting green apparel (Business of Fashion, 2021).

2. **Cultural and Social Influences on Consumption Behavior:** Youth females in Uttar Pradesh are influenced by a unique blend of cultural traditions and modern aspirations, which shape their fashion choices. Peer influence, media exposure, and socioeconomic status all have a significant impact on their buying behavior, so it is important to investigate these factors in the context of green apparel. This understanding can provide insights into how cultural norms and regional factors affect sustainable fashion adoption (Ghaffar & Islam, 2024).
3. **Growing Market Potential in Tier-II Cities:** While metropolitan areas like Delhi and Mumbai are seeing considerable development in green fashion adoption, there has been limited research on the potential in Tier-II cities of Uttar Pradesh, such as Lucknow, Kanpur, and Varanasi. With these cities experiencing fast urbanization and a booming middle-class population, understanding youth females' perceptions and attitudes toward green apparel can reveal undiscovered market opportunities (Mishra & Varshney, 2024; The Indian Market Research Bureau, 2022).
4. **Lack of Region-Specific Data and Academic Research:** The majority of available research on green apparel is either globally or focused on urban populations in India, leaving a knowledge gap about regional variations, particularly in states like Uttar Pradesh. Given that Uttar Pradesh is the most populous state in India and accounts for a significant share of the youth population, region-specific studies are essential for establishing localized policies and business strategies that can successfully promote sustainable fashion consumption (Ministry of Textiles, 2021; Yadav & Sahoo, 2024).
5. **Contribution to Sustainable Development Goals (SDGs):** The United Nations Sustainable Development Goals (SDG 12) emphasize the promotion of sustainable consumption and production trends. Understanding green apparel buying behavior among youth females in Uttar Pradesh can help achieve broader sustainability goals by identifying barriers and drivers of sustainable fashion adoption. This research can also assist policymakers and businesses in designing interventions that resonate with local consumers, therefore supporting sustainable development at a regional level (United Nations, 2015).
6. **Youth as Agents of Change:** Youth females are more than simply passive consumers; they frequently act as trendsetters and influencers in their peer groups and communities. They are more likely to use and support environmentally friendly products, making them important agents in promoting sustainability. Understanding

their attitude and behavior regarding green apparel can help firms and policymakers successfully target this group and leverage their potential to raise awareness about sustainable fashion practices (Chand, 2022; Kapoor & Sondhi, 2023; Niinimäki, 2010). Furthermore, research has shown that youth, particularly females, are more willing to align their buying patterns with ethical issues, such as fair labor standards, environmental effects, and social responsibility (Henninger et al., 2016; Singh et al., 2024).

7. **Challenges of Price Sensitivity and Accessibility:** While young consumers in Uttar Pradesh may indicate a desire to support sustainable fashion, their actual buying behavior may be hindered by factors such as the higher cost of green apparel compared to traditional clothing. In many cases, the higher cost of sustainable fashion items makes them less accessible to this group, especially in semi-urban and rural areas. Studying the price sensitivity and financial constraints of youth females in this region can help identify how economic issues influence their willingness to buy environmentally friendly apparel (Park 2024; Shibin et al., 2016). Understanding these dynamics is crucial for designing cost-effective green apparel solutions that address these Consumers economic realities.
8. **Peer Influence and Social Media Dynamics:** Peer influence and social media trends have a significant influence on youth females. Social media platforms like Instagram and Facebook have a substantial impact on fashion choices, creating both opportunities and challenges for green apparel adoption. On one side, the widespread use of influencers and eco-fashion initiatives can raise awareness and interest sustainably. On the other side, the "fast fashion" culture, which is also promoted on these platforms, runs directly against sustainable fashion norms (Chaudhary et al., 2024; Mcneill and Moore 2015). Therefore, understanding the significance of social media in shaping green apparel preferences among youth females is essential for developing effective marketing and educational campaigns.
9. **Need for Localized Marketing Strategies:** Uttar Pradesh's diverse cultural and socio-economic backgrounds make a one-size-fits-all strategy for promoting green apparel unlikely to be effective. Localized marketing strategies that take into consideration regional differences in language, cultural values, and purchasing power are essential. For example, while youth in urban centers like Lucknow may be more open to Western sustainable fashion brands, rural youth may choose local brands that incorporate traditional features into green apparel. Exploring such

differences can provide useful insights for firms that want to penetrate this market segment (The Indian Market Research Bureau, 2022).

10. **Long-Term Environmental Impact:** Addressing green apparel buying behavior among Uttar Pradesh's youth females is not only about immediate market gains but also about long-term environmental sustainability. Encouraging early adoption of sustainable fashion practices can result in a lifetime of conscious consumption patterns, significantly lowering the region's environmental impact on the fashion industry. The Indian textile industry is one of the world's largest and has a significant environmental impact. Thus, promoting green apparel in regions like Uttar Pradesh can significantly contribute to reducing the environmental impact of fashion at both national and global levels (Ministry of Textiles, 2021).

1.7 Major Players in the Green Apparel Sector

The green apparel sector has grown globally with a diverse range of companies contributing to the sustainable fashion movement. These companies prioritize environmental impact reduction through the use of eco-friendly materials, and ethical manufacturing processes, and focus on circular fashion concepts. Patagonia is among the leaders in the sustainable apparel industry. The brand is known for its environmental activism. The company uses organic cotton, recycled materials, and fair-trade-certified facilities. Its "Worn Wear" campaign encourages customers to repair, recycle, and resell used clothes and promotes circular fashion (Patagonia, 2021). H&M launched its "Conscious Collection" as part of its eco-friendly initiative. The range includes products made from organic cotton, recycled polyester, and Tencel (trademark). H&M has also set ambitious targets, such as using 100% eco-friendly materials by 2030 and promoting textile recycling through in-store collection points (H&M Group, 2022). Levi's uses sustainable practices, including organic cotton and technology to reduce water usage throughout the manufacturing process. The company's Wellthread trademark collection prioritizes durability and recyclability, further contributing to its sustainable initiatives (Levi Strauss & Co, 2020). Stella McCartney is a leading luxury fashion brand that prioritizes sustainability. The company continues to stand for cruelty-free fashion, employing materials such as organic cotton, regenerated cashmere, and biodegradable faux leather. The brand engages with firms like Bolt Threads to create innovative environmentally friendly textiles (Stella McCartney, 2019). Adidas has announced several environmental projects, including a partnership with Parley for the Oceans to create footwear made from upcycled marine plastic waste. The company's

"Futurecraft Loop" concept intends to manufacture recyclable sneakers, contributing to a closed-loop manufacturing system (Adidas Group, 2021).

In the Indian context, FabIndia is a key player in promoting sustainable and traditional crafts. The brand promotes craftsmen all around the country, focusing on natural dyes, organic fibers, and handwoven fabrics. It also seeks to enhance the livelihoods of rural communities and promote green fashion in the Indian market (Fabindia, 2020). Raymond, a renowned Indian textile company, has been incorporating ecological practices into its manufacturing processes. The corporation has prioritized energy-efficient technologies, water conservation, and reduced chemical use. Its green apparel initiatives are part of its overall sustainability strategy to align with environmental goals (Raymond, 2021). Ralph Lauren has committed to use 100% sustainably sourced key materials by 2025. The brand has introduced the "Earth Polo", made from recycled plastic bottles and dyed using a waterless process, demonstrating its emphasis on reducing the environmental impact (Ralph Lauren, 2021). Nike's "Move to Zero" campaign emphasizes sustainable innovation. The initiative aims to reduce carbon emissions and waste through the use of recycled polyester, sustainable cotton, and other environmentally friendly materials. Nike's "Space Hippie" line is made from waste materials, showing its dedication to green apparel (Nike, 2021). Inditex, Zara's parent company, has launched the Join Lifeline, which features sustainable and recycled material. By 2025, the company intends to produce apparel made entirely from organic, sustainable, or recycled fibers. Zara has also implemented in-store recycling points as part of its circular fashion strategy (Inditex Group, 2021).

1.8 Research Problem

The apparel industry is one of the most significant contributors to environmental degradation. The production process includes extensive water consumption, chemical pollution, and the use of non-biodegradable materials, all of which are causing serious environmental impacts. As consumers are becoming more conscious of these issues, there is a great demand for environmentally friendly clothes, known as "Green Apparel". However the adoption of such clothes among consumers, particularly youth females in India is still being explored (Sneha & Sudha Babel, 2022).

In Uttar Pradesh, a state with diverse cultural influences and economic situations, youth females' purchasing behavior for green clothes is influenced by several factors, including

socioeconomic level, education, and cultural perceptions of sustainability. Despite increased knowledge of environmental issues, there is still minimal scientific research on the specific motives and barriers that this population faces when purchasing green apparel. Previous research shows that, while many consumers express a desire for sustainable clothes, actual purchase behavior frequently does not coincide with these intentions due to factors such as increased costs, restricted availability, and lack of information (Sneha & Sudha Babel, 2022; R. Singh & Pathak Supriya, 2021).

The literature review contributed to gaining insight and clarity into the research issue. A research problem is said to be rewarding when there is a gap between the actual and desired outcomes. The literature provided considerable evidence of green apparel buying behavior for fashion consciousness, variety-seeking behavior, consumer innovativeness, physical product attributes, attitude toward green apparel, and environmental concern attributes on the decision of the consumers residing in Tier-II cities of Uttar Pradesh to buy green apparel. The literature review suggested that little work has been done in India on this issue. This motivated the current research study which aims to help fashion apparel brand marketers understand the effect of the awareness and consumption of green apparel, to develop a positive attitude towards green apparel to study the factors that influence buying behavior, to develop favorable attributes of green apparel that affect the buying decision of the consumer of green apparel in Tier-II cities of Uttar Pradesh.

Awareness and consumption of green apparel resulting from self-care and concern for the environment were observed to vary in the decision to purchase green apparel. The most significant variables included environmental concern followed by sustainable commitment, indicating that men were ecologically conscious, committed, and concerned (D'Souza et al., 2015). Consumer attitudes and behaviors were found to be the most constant predictors of willingness to pay for green products (Biswas & Roy, 2016).

The primary objective of this research is to empirically analyze the buying behavior of youth females towards green apparel in Tier-II cities of Uttar Pradesh, by focusing on their awareness, perceptions, attitudes, motivations, and barriers. This study intends to give helpful information for marketers, politicians, and educators on how to effectively promote sustainable fashion among young consumers. By addressing these concerns, the study will contribute to the broader understanding of consumer behavior in the context of sustainable

fashion, particularly in a region where traditional customs and modern consumerism intersect.

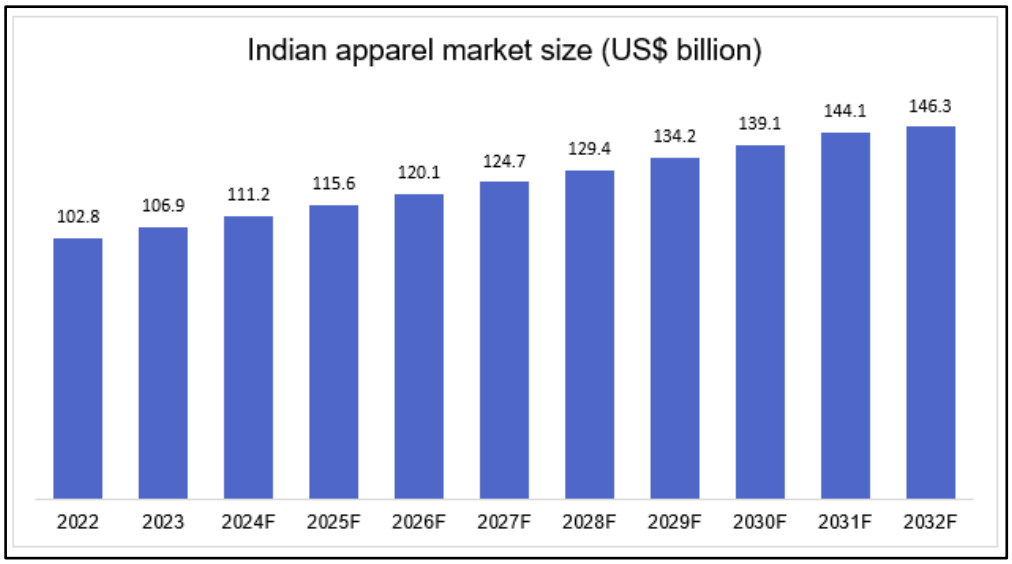
1.9 Rationale of The Study

1.9.1 Importance of Sustainable Consumer Research in Developing Countries

The fashion industry contributes approximately 10% of global carbon emissions and remains the second-largest consumer of water globally (UNEP, 2023). Developing countries, including India, are experiencing a surge in consumer demand for apparel due to rising disposable incomes and increased urbanization. However, this growth often comes at the cost of environmental degradation, especially in the context of fast fashion. Despite this, sustainable consumer behavior remains an understudied area in the Global South, where consumption dynamics differ significantly from those in developed economies (Gupta & Ogden, 2009).

India's apparel market is transforming remarkably, characterized by vibrant growth and evolving consumer preferences. The market was valued at US$ 102.8 billion in 2022 and is projected to reach US$ 146.3 billion by 2032, growing at a CAGR of 4% during 2022-2032. The increasing middle-class population, high disposable income, and shifting lifestyle preferences induced by fashion are driving this growth. As consumers increasingly aspire to wear stylish and branded clothes, the demand for domestic and international fashion labels is growing, leading to increased market growth (IBEF, 2025).

Apart from economic indicators, the fashion sector plays a vital role in the cultural identity and social fabric of India. Apparel not only projects a person’s personality and way of life but also reflects the rich heritage and varied traditions of the nation. This cultural significance is intertwined with the evolving market, as consumers seek to balance modern fashion trends with traditional elements. Moreover, e-commerce has changed the way Indians buy their clothes; traditional and contemporary fashion is more accessible than ever. This shift has expanded the consumer base and fostered a competitive environment, compelling brands to innovate continuously (IBEF, 2025).



Source- marketresearchfuture, F-Forecasted

Figure 1.1: Indian Market Apparel Size (US$ Billion)

The Indian apparel market is growing strongly, reaching a value of US$ 102.8 billion in 2022. The value will see a further increase at US$ 146.3 billion by 2032 by recording a compound annual growth rate of 4.0% throughout the start of the period in 2024 up to 2032 as expected by market research future. In 2023, the apparel market was valued at US$ 106.9 billion, owing to an increase in its consumer base, contributed mainly by an increase in disposable income, urbanization, and the changing lifestyle of the population. A high growth driver is the increasingly large middle-class population that reflects increased spending on fashion and lifestyle products. This expansion underscores the urgent need to investigate sustainable consumption in the Indian apparel sector. Research focusing on consumer awareness, attitudes, and behavior in developing nations can guide policymakers and businesses in integrating sustainability into local market strategies (IBEF, 2025).

1.9.2 Relevance of the Youth Female Segment

Globally, Generation Z and Millennial consumers (aged 18–35) are increasingly prioritizing sustainability in their purchasing decisions, with over 73% of Gen Z consumers willing to pay more for sustainable products (First Insight, 2020). In India, female youth are particularly influential in fashion-related consumption due to their higher fashion involvement and active presence on social media platforms.

In the apparel segment, women account for approximately 38% of fashion spending in India, and this share is growing due to increased education levels, workforce participation,

and digital empowerment (Singh et al., 2024b). Young female consumers not only reflect changing values but also influence household and peer group decisions, making them key agents in the transition toward green consumption.

1.9.3 Need for Region-Specific Behavioral Insights

While metropolitan cities like Delhi, Mumbai, and Bangalore are frequently studied in sustainability research, tier-II and tier-III cities, including those in Uttar Pradesh, have been largely overlooked. Uttar Pradesh, with a population of over 240 million (Census of India, 2011a; R. Jain, 2024), has a youth demographic (15–29 years) that comprises nearly 28% of its population (NSSO, 2020).

As one of India's fastest-growing consumer markets, urban centers like Lucknow, Kanpur, and Varanasi are experiencing a shift in lifestyle and consumption patterns, influenced by digitalization, education, and media exposure. Yet, consumer attitudes toward green apparel in these regions remain under-researched. Region-specific insights are essential to understanding how awareness, cultural values, and accessibility shape green purchasing decisions in non-metro regions.

1.9.4 Bridging Academic and Practical Gaps

Existing research models such as the Theory of Planned Behavior (TPB) and Value-Belief-Norm Theory have been widely used in global contexts to explain green consumer behavior, yet their applicability in Indian subregions remains limited. Empirical data from regional populations are needed to adapt these models to Indian cultural, economic, and social realities (Joshi & Rahman, 2015).

On the practical side, brands and marketers often lack granular consumer data from states like Uttar Pradesh to inform product design, communication strategies, or sustainability campaigns. Bridging this academic-practice gap can lead to more culturally grounded interventions that not only increase green apparel uptake but also support India’s national goals under the Sustainable Development Goals (United Nations, 2020).

1.10 Research Model

Based on the literature and the mentioned research gap, this section presents a research model (conceptual framework) of Green Apparel Buying Behavior with its antecedents.

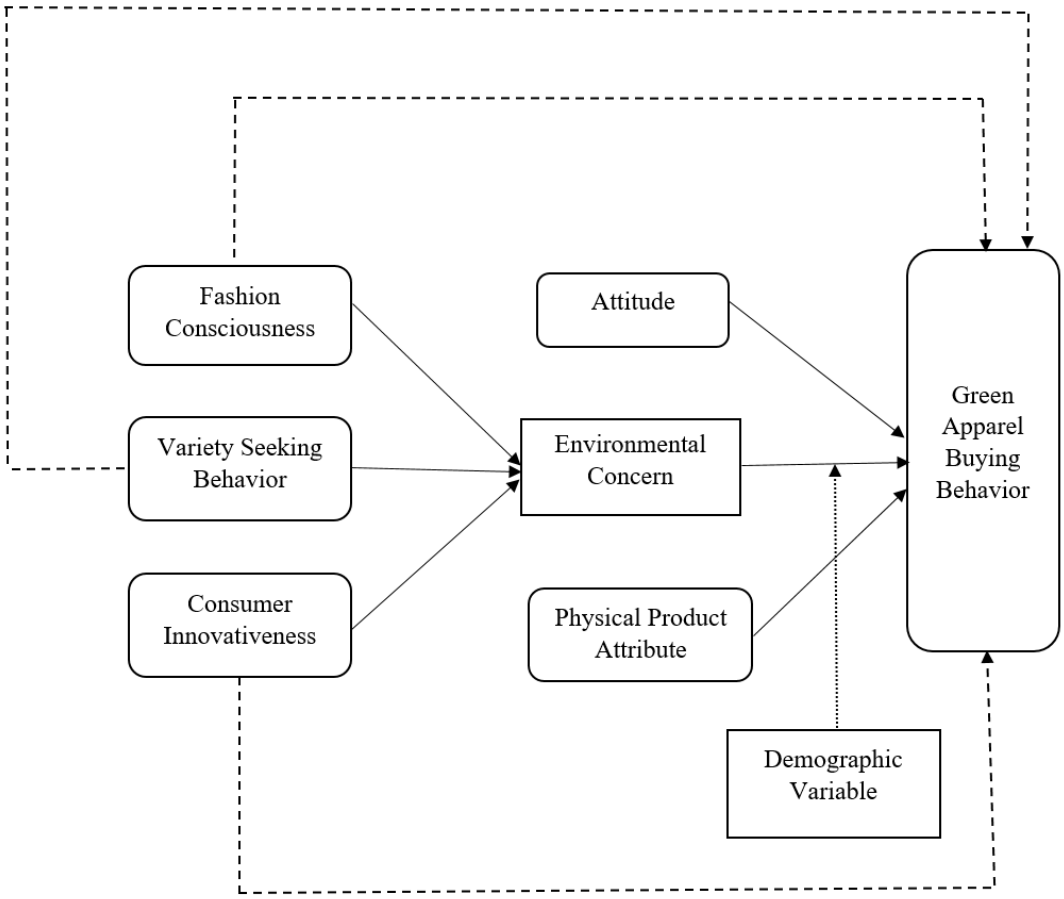


Figure 1.2: Research Model of Green Apparel Buying Behavior

Independent Variables: Fashion Consciousness, Consumer Innovativeness, Variety Seeking Behavior, Attitude, Physical Product Attributes

Dependent Variable: Green Apparel Buying Behavior

Mediating Variable: Environmental Concern

Moderating Variable: Demographic Variable

1.11 Research Hypothesis

The hypothesis was formulated to be tested in the study to find the significant effect of variables under study on the green apparel buying behavior of youth female shoppers living in the selected Tier-II cities of Uttar Pradesh. Here, Ho represents the Null Hypothesis and Ha represents the Alternative Hypothesis. An alternative hypothesis was developed based on the study objectives. The hypotheses framed in the study are as follows:

The first two hypotheses (Ha1 and Ha2) are framed to measure the impact of physical product attributes and attitude on green apparel buying behavior are expressed as -

Ha1: There is a significant effect of Physical Product Attributes on Green Apparel Buying Behavior.

Ha2: There is a significant effect of Attitude on Green Apparel Buying Behavior.

The next set of hypotheses (Ha3, Ha4 and Ha5) are framed to measure the mediating effect of Environmental Concern between Fashion Consciousness, Variety Seeking Behavior, Consumer Innovativeness and Green Apparel Buying Behavior are expressed as -

Ha3: Environmental Concern plays the role of mediator between Fashion Consciousness and Green Apparel Buying Behavior.

Ha4: Environmental Concern plays the role of mediator between Variety Seeking Behavior and Green Apparel Buying Behavior.

Ha5: Environmental Concern plays the role of mediator between Consumer Innovativeness and Green Apparel Buying Behavior.

The last hypothesis (Ha6) is framed to measure the moderating effect of Age between Environmental Concern and Green Apparel Buying Behavior is expressed as –

Ha6: Age plays a role as a moderator between Environmental Concern and Green Apparel Buying Behavior.

1.12 Limitations of the Study

Like any research endeavor, this study has certain limitations that must be acknowledged. Understanding these limitations provides clarity on the scope of the findings and helps identify areas for future research improvement. The key limitations of the present study are as follows:

1. The study only included youth females from Uttar Pradesh, which may limit the generalizing of the findings to other regions. Consumer attitude and behavior may differ significantly in other parts of India due to cultural differences, economic conditions, and fashion preferences. As a result, the findings may not accurately represent the green apparel buying behavior of youth females in other states or countries.

2. The sample only includes youth female consumers, excluding other demographic groups such as male consumers, older adults, or consumers from different socio-economic backgrounds. Due to limited demographic focus, the findings are limited to youth females and do not represent the broader range of green apparel buying behavior.
3. The study is cross-sectional, capturing data at a single point in time. Other studies can use longitudinal studies to understand how green apparel buying behavior changes over time.
4. While the study considers the influence of physical product attributes on green apparel buying behavior, it does not go into specific product-related factors such as price sensitivity, quality perception, or perceived durability. These factors may have a significant impact on buying behavior and should be investigated further in future research.
5. The study focuses on individual factors such as attitude, fashion consciousness, and consumer innovativeness, but it does not take into account the role of peer influence, social norms, and family dynamics in shaping green apparel buying behavior. Since youth consumers are highly influenced by their social groups, including these variables may provide a more comprehensive view of green apparel adoption.
6. The sample includes youth female respondents from Tier-II cities. Future research can include respondents from Tier-III cities. As the sample is collected from malls, further respondents can be sourced from specific colleges, universities, or urban centers in future studies.

By acknowledging these limitations, the study sets the groundwork for future researchers to build on and address these gaps. Understanding the study's limitations helps to contextualize its contributions and encourages further investigation of green apparel buying behavior across diverse consumer segments and regional contexts.

1.13 Conceptual Definitions

Apparel: Apparel refers to clothing, dress, garments or attire that people wear.

Green Apparel: Green apparel refers to clothing and fashion items that are designed to have a low environmental impact throughout their life cycle, from production to disposal.

Green Buying Behavior: Green buying behavior refers to the decisions and behaviors that people make while purchasing green products or services.

Green Apparel Buying Behavior: Green apparel buying behavior refers to the purchasing decisions and patterns that consumers perform while selecting eco-friendly apparel.

Fashion Consciousness: Fashion consciousness refers to an individual's awareness, interest, and active participation in fashion trends, styles, and clothing options.

Variety-Seeking Behavior: Variety-seeking is described as the inclination to switch among different products or brands just to try something new or different.

Consumer Innovativeness: Consumer innovativeness is a personality trait that describes a person's propensity to buy and use new products more quickly and frequently than others.

Physical Product Attributes: Physical product attributes are tangible characteristics of a product, such as material composition, design features, color, style, and overall quality.

Environmental Concern: Environmental concern is defined as a worldwide assessment of the environment that is impacted by values and attitudes towards nature.

Attitude: Attitude refers to how positively or negatively a person evaluates or appraises a behavior.

Attitude towards Green Apparel: People's favorable or unfavorable attitude towards green clothes.

Youth Females/Consumers: Youth females/consumers are defined as individuals between 15 to 29 years of age.

Youth Buying Behavior: Youth buying behavior refers to the purchasing patterns, preferences, attitudes, and decision-making processes performed by young consumers.

1.14 Structure of the Thesis

The thesis is organized into five chapters. Each of these chapters is discussed briefly with their outline below:

Chapter 1: This chapter briefly introduces the background of the research.

Chapter 2: This chapter reviews the literature on the topics covered in this study.

Chapter 3: This chapter includes a detailed research methodology framework used in this study.

Chapter 4: This chapter consists of a comprehensive analysis of all the objectives. The study presents data in a tabular format, analysis and interpretation of these tables were also discussed.

Chapter 5: This chapter summarizes and concludes the findings of the research study. It also presents the managerial implications of the present study and its limitations. The future scope of the research work is also discussed. The study discloses the broad conclusion of the research work.

CHAPTER – 2

REVIEW OF LITERATURE

The rise in environmental awareness, with a growing preference for sustainability, has led to a shift in the apparel industry. This chapter examines the existing literature on Green Apparel Buying Behavior, focusing on concepts, models, and studies that have contributed to understanding this field. By reviewing a wide range of sources, this literature review aims to find common themes, research gaps, and suggest areas for further research. This chapter provides an overview of how green apparel buying behavior can benefit both consumers and the environment, establishing the context for the thesis's analysis and discussion. The first section of the literature review is a detailed explanation of key variables (constructs) used in the study. The second section consists of a thorough review of six antecedents of green apparel buying behavior, i.e., fashion consciousness, variety-seeking behavior, consumer innovativeness, physical product attributes, attitude, environmental concern, and their relationship with green apparel buying behavior. The third section consists of a detailed review of demographic variables and their influence on green apparel buying behavior. The fourth section consists of a detailed review of youth buying behavior, gender-specific studies on consumer behavior, and the regional context – Uttar Pradesh. The fifth and last section of the literature review consists of the research gap and research model.

Section 1: Key Variables and Conceptual Clarifications

This section provides conceptual definitions and theoretical justifications for the key variables employed in this study. Each variable has been selected based on prior empirical research and its relevance to sustainable consumer behavior models, particularly the Theory of Planned Behavior (Ajzen, 1991), innovation diffusion theory (Rogers, 2003), and consumer behavior literature. To ensure clarity in the study framework, the following key variables are defined and explained as they form the basis of the research.

2.1.1 Fashion Consciousness

Definition: Fashion consciousness denotes an individual’s awareness, interest, and responsiveness to fashion trends and styles. It is the degree to which consumers are aware of, interested in, and influenced by the latest fashion trends. Highly fashion-conscious

consumers are often early adopters and trendsetters in apparel purchases (Workman & Kidd, 2000).

Measurement: Assessed using scales that evaluate interest in fashion, trend-following behavior, and brand/style awareness.

2.1.2 Variety-Seeking Behavior

Definition: The consumer's desire to explore new brands, styles, or product categories to avoid routine or boredom in consumption. (Van Trijp et al., 1996) argued that variety-seeking can drive switching behavior even in habitual consumption scenarios, including fashion.

Measurement: Measured using items that reflect the tendency to try new styles or brands regularly.

2.1.3 Consumer Innovativeness

Definition: Consumer innovativeness is the tendency to seek out and adopt new products or experiences earlier than the average consumer. It refers to the level of awareness and concern an individual shows toward environmental issues and sustainability. In the fashion context, it denotes openness to trying sustainable materials and new eco-designs. (Goldsmith & Hofacker, 1991) developed a domain-specific innovativeness scale that links innovativeness with new product adoption behavior.

Measurement: Often measured through Likert-scale items related to attitudes about environmental protection.

2.1.4 Physical Product Attributes

Definition: Physical product attributes refer to consumer perception of the physical and functional characteristics of green apparel, such as fabric quality, style, comfort, durability, and sustainability. Consumer perception of product qualities such as design, material, comfort, durability, and sustainability (Abraham-Murali & Littrell, 1995).

Measurement: Scales focus on the subjective evaluation of the physical and functional aspects of green apparel.

2.1.5 Attitude

Definition: This refers to the individual's positive or negative evaluation of purchasing green or sustainable apparel. (Ajzen, 1991) The Theory of Planned Behavior emphasized that attitude toward a behavior is a critical predictor of behavioral intention.

Measurement: Typically assessed using attitudinal scales that include beliefs about the benefits, importance, and personal relevance of green apparel consumption.

2.1.6 Environmental Concern

Definition: Environmental concern reflects the level of awareness and concern an individual shows toward environmental issues and sustainability. It serves as a psychological motivator in eco-friendly purchasing (Schlegelmilch et al., 1996).

Measurement: Often measured through Likert-scale items related to attitudes about environmental protection.

2.1.7 Green Apparel Buying Behavior

Definition: Green apparel buying behavior refers to the act of purchasing clothing that is environmentally sustainable and ethically produced. It includes both the intention to buy and actual purchasing behavior related to eco-friendly fashion. This variable is central to the study as it represents the dependent outcome (Joshi & Rahman, 2015).

Measurement: Typically measured using consumer self-reports on frequency and motivation behind purchasing eco-friendly apparel.

2.1.8 Demographic Variables

Definition: Demographic variables such as age, income, education level, and location are included as control or moderating variables. These factors can influence how other variables affect green apparel purchasing. (Diamantopoulos et al., 2003a) suggested demographic factors alone may not predict green behavior, but they help explain variance when combined with psychographic variables.

Usage: Typically used as a control or moderating variable in statistical models to analyses differences in green apparel behavior across groups.

2.1.9 Justification for Variable Selection

These variables were selected based on an extensive literature review and relevance to The Theory of Planned Behavior (TPB) and innovation adoption frameworks, which are often used to understand environmentally conscious consumer behavior. Additionally, they align with previous empirical findings in green marketing and sustainable fashion research.

Including these variables allows the study to:

- Capture both internal and external influences on buying behavior.
- Understand the cognitive and behavioral processes behind green apparel consumption.
- Explore demographic influences among female youth in Uttar Pradesh.

Section 2: Antecedents of Green Apparel Buying Behavior

This section consists of a detailed review of the literature on antecedents influencing green apparel buying behavior.

2.2.1 Fashion Consciousness and Its Influence on Green Apparel Buying

Fashion Consciousness refers to an individual's awareness, interest, and active participation in fashion trends, styles, and clothing options (Shokeen et al., 2022a). Being an important consumer attribute for fast-fashion retailers, this personal trait predisposes the customers to be more receptive to and make use of fashion marketing communications. It has a significant impact on consumer buying behavior, mainly in terms of apparel buying decisions. As the concept of sustainability grows more prominent, understanding fashion consciousness with green apparel purchasing is essential. Many researchers define fashion consciousness in different studies and describe fashion consciousness in the context of sustainable luxury (Phau et al., 2024; Soni et al., 2024). They argue that fashion-conscious consumers are becoming more interested in both the aesthetic and ethical aspects of luxury apparel, combining high design with sustainable practices and transparency in sourcing. Brydges and colleagues broaden the idea of fashion consciousness to include environmental awareness, especially in the post-COVID-19 era. Fashion-conscious shoppers are now said to be more prone to evaluate the environmental impact of their clothing choices, combining aesthetic awareness with ethical considerations (Brydges et al., 2020). Fashion consciousness in terms of social validation and peer influence, with a focus on how fashion

influencers and digital content shape Consumers fashion awareness and preferences. They define fashion-conscious consumers as individuals who rely on digital media for fashion information and seek acceptance from their social networks (Soni et al., 2024; Sudha & Sheena, 2017). Fashion consciousness is an individual's level of engagement with fashion in terms of sustainability. Researchers investigate how fashion-conscious customers handle the tension between fast fashion and sustainable fashion choices, and how conscious consumers may continue to prioritize trends above ethics (Mcneill & Moore, 2015d). As per Workman and Caldwell, fashion consciousness is a key aspect of consumer behavior, stating that people with higher fashion consciousness place a high emphasis on visual aesthetics, uniqueness, and social meaning in their clothing choices. They define fashion-conscious consumers as individuals who actively seek to express themselves through fashion (Workman & Caldwell, 2007). The degree to which a person is involved with the styles or fashion of apparel is measured by fashion consciousness (Nam et al., 2007).

The concept of fashion consciousness is often related to consumer behaviors influenced by social, cultural and psychological factors. In recent years, a growing body of research has examined how fashion consciousness interacts with sustainability and green purchasing behavior, particularly in the apparel industry (Lochab et al., 2024; Ocktavia et al., 2024). Fashion consciousness is a multi-dimensional construct. It can be defined as a person's sensitivity or attentiveness to fashion trends, an interest in personal appearance, and the capacity to express oneself through clothing choices. According to research, fashion-conscious consumers are influenced by brand prestige, self-image, and social identity, in addition to style (Janpors et al., 2023b; Khare, 2023a; Rahman et al., 2010). Fashion-conscious people frequently want to be perceived as trendsetters or at least followers of current trends. They are more likely to engage with fashion media, blogs, and social networks, which serve as platforms for discovering new styles and expressing their sense of identity. Fashion consciousness is also related to conspicuous consumption, in which consumers utilize fashion products to convey social status or income (Cayaban et al., 2023; Janpors et al., 2023b). The rise of environmental concerns has pushed consumers and manufacturers to adopt more sustainable fashion practices. According to research published by the (Ellen MacArthur Foundation, 2017a), the fashion business has substantial consequences, such as pollution and resource depletion. In response to these difficulties, green clothes provide a means to lessen their consequences through the use of organic materials, recycled fabrics, and waste reduction. According to studies, there is a rise in

demand for green apparel, particularly among young consumers (Chen & Chang, 2012a; Su et al., 2023). However, the impact of fashion consciousness on purchasing decisions is complex and varies among consumer groups.

Literature suggests that fashion-conscious consumers are more inclined to engage in green purchasing behavior in order to improve their social image and keep up with current trends. For instance, researchers stated that fashion-conscious consumers may choose sustainable apparel to demonstrate their dedication to environmental problems and evaluate their status as responsible citizens. In this regard, green apparel serves a dual purpose: it satisfies a need for trendy things while also allowing consumers to exhibit their environmental consciousness (Connell, 2010a; Mishra et al., 2023). Therefore, (Park & Lin, 2020) stated that fashion-conscious buyers frequently perceive green apparel as a trend, rather than an ethical choice. In this context, sustainability becomes "fashionable", encouraging these people to incorporate eco-friendly apparel into their collections. The study stated that customers are willing to pay a higher price for green apparel as they perceive it as contemporary and stylish, which impacts their buying behavior towards green apparel (O. Khan et al., 2024; Kozar & Connell, 2013; X. J. Lim et al., 2023). Conversely, other research studies have revealed that fashion consciousness can act as a barrier to green apparel buying behavior because fashion-conscious people are largely influenced by aesthetics and style; they may find eco-friendly apparel less appealing or trendy than fast fashion options. Few researchers (Hageman et al., 2024; Joy et al., 2012a; Mehta et al., 2023) examined how the fast fashion business, which focuses on quickly shifting trends and low-cost clothing, presents a dilemma for fashion-conscious consumers who are also concerned about sustainability. The need for novelty may prevent people from adopting more sustainable purchase habits, such as purchasing long-lasting green apparel. In their study on sustainable fashion consumption, (Ritch, 2015a) suggested that the gap between style and sustainability is one of the key reasons why many fashion-conscious consumers are reluctant to adopt eco-friendly clothes.

Despite being aware of environmental challenges, these customers may prioritize fashion over sustainability, resulting in a gap between their beliefs and actual purchasing behaviors. Consumer values are essential in determining whether fashion consciousness results in green apparel purchases. According to research, females who have more environmental values are most likely to prioritize sustainability in their fashion choices (D'Souza et al., 2006; Şener et al., 2023; Yang et al., 2024a). These buyers frequently seek out green

clothing since it is consistent with their overall ethical beliefs. Green clothes are likely to be less appealing to fashion-conscious consumers who do not have strong environmental values. Research by (Kang et al., 2013; Yang et al., 2024a) discovered that consumers with high levels of environmental awareness and fashion consciousness were more likely to buy sustainable clothes. These consumers perceived eco-friendly fashion as a way to meet both their aesthetic and environmental needs, resulting in a positive feedback loop between fashion consciousness and green consumption. Perceptions of quality have an impact on the relationship between fashion consciousness and green apparel buying behavior. According to studies, fashion-conscious shoppers frequently perceive eco-friendly apparel as inferior in terms of quality and durability compared to conventional fashion items (Janpors et al., 2023a; Niinimäki, 2010a; N. Singh et al., 2023).

However, when consumers perceive green clothing to be of high quality, they are more likely to consider it a viable alternative to fast fashion. The research emphasizes that consumers should be made aware of the benefits of using green apparel, such as durability and eco-friendliness, to change negative perceptions and to encourage sustainable purchasing. By highlighting the long-term value of green apparel, brands can appeal to fashion-conscious consumers who are concerned about both style and sustainability (Niinimäki, 2010a; N. Singh et al., 2023). According to a survey conducted by H&M, a company that is the world's top fast fashion retailer, females are in favor of buying green apparel when it is marked as both trendy and sustainable (Bhaduri & Ha-Brookshire, 2011). The study by (Janpors et al., 2023a; Shokeen et al., 2022b) highlights the significance of fashion consciousness in the Indian market, which has seen an increase in luxury fashion consumption due to rising disposable income levels and the merging of traditional Indian values with western lifestyles. The study also discusses several studies that have studied the relationship between fashion consciousness and consumer behavior, including fashion-conscious customers' desire to spend more money on clothing and their positive attitude towards shopping (Kozar & Connell, 2013). Furthermore, the research emphasizes the significance of gender in fashion consciousness, with females being more interested in and aware of clothing than males as adult consumers (Shokeen et al., 2022a; Park & Lin, 2020; Kozar & Connell, 2013). Therefore, (Senthilkannan et al., 2020) highlight the role of consumer fashion consciousness with luxury or fast apparel companies as they have the potential to affect consumer perception and appeal to sustainability. The study by (Hasbullah et al., 2022) investigates the effect of customers' fashion consciousness on their

intentions to purchase sustainable apparel. The relationship between fashion consciousness and green apparel buying behavior is hypothesized. Thus, fashion consciousness has a significant relationship with green apparel buying behavior. (Becerra, 2018) shifting consumer behavior towards sustainable apparel and providing a design process that solves this issue by providing stylish and inexpensive solutions. In the studies by (Gunawan et al., 2022; Mcneill & Moore, 2015d) the influence of fashion consciousness on purchase intention and other variables has been highlighted. Self-identity, social media influence, and mass media influence all have an impact on fashion consciousness, which in turn influences purchasing intentions (Cayaban et al., 2023). (Zukhrufani et al., 2022) stated that fashion consciousness significantly positively affects satisfaction and has a positive significant impact on loyalty.

Researchers stated that more fashion-conscious consumers have a significant impact on purchasing than those who are less fashion-conscious. For highly fashion-conscious consumers, the priority is to have a self-relevant fashion style that best represents them rather than other variables, such as their experience with a particular brand (Kang et al., 2013). Consumers understand a fashion product from a brand, which makes consumers tend to be loyal and repurchase (Kim et al., 2018). Hence, the literature reveals that fashion consciousness and green apparel buying behavior are increasingly interlinked as consumers are more aware of sustainability challenges in the apparel business. While the relationship between the two is complex, there is a growing trend of fashion-conscious consumers adopting eco-friendly fashion practices. Thus, fashion consciousness positively influences Consumers green apparel buying behavior.

- **Discussion of Review of Literature**

The existing literature underscores the pivotal role of fashion consciousness in shaping consumer behavior, especially in the context of apparel consumption. Fashion consciousness has been conceptualized as an individual's awareness of fashion and engagement with fashion trends, aesthetics, and identity expression (Shokeen et al., 2022a; Workman & Caldwell, 2007). It is influenced by social, cultural, and psychological factors and is strongly associated with behaviors such as brand preference, trend adoption, and social validation (Nam et al., 2007; Kim et al., 2018).

In recent years, a growing body of research has linked fashion consciousness with sustainability, particularly within the apparel industry. Researchers have highlighted that

fashion-conscious consumers may be motivated to purchase green apparel as a means of aligning their aesthetic values with environmental ethics (Connell, 2010a; Park & Lin, 2020; Kozar & Connell, 2013). Fashion consciousness thus becomes a dual motivator, enabling consumers to remain stylish while also reflecting pro-environmental values. However, this relationship is not straightforward. Several studies note that fashion-conscious consumers often face difficulty between their desire for novelty and trends, and the principles of sustainability, which emphasize minimalism, durability, and mindful consumption (Joy et al., 2012a; McNeill & Moore, 2015d).

Furthermore, environmental concern has been identified as a critical mediating variable in green apparel purchasing behavior. Consumers with higher environmental concerns are more likely to incorporate sustainability into their fashion choices, especially when such choices align with their ethical beliefs and personal values (Kang et al., 2013; Yang et al., 2024a). Some researchers argue that fashion-conscious consumers with heightened environmental awareness are more willing to compromise on style or cost if it means making sustainable choices (Hasbullah et al., 2022; Singh et al., 2023). Despite these positive trends, perceptions of quality and style often hinder the adoption of green apparel. Fashion-conscious consumers may perceive eco-friendly apparel as less stylish or durable compared to conventional fast-fashion products (Janpors et al., 2023a; Niinimäki, 2010a). This implies that while environmental concern can enhance the relationship between fashion consciousness and green apparel buying, it may also moderate or mediate it based on consumer perception and values.

Importantly, gender and age also play a role in how fashion consciousness translates into behavior. Females, especially younger ones, are found to be more fashion-conscious and responsive to fashion marketing, digital influencers, and peer trends (Soni et al., 2024; Cayaban et al., 2023). They also show a higher likelihood of expressing identity and values through clothing choices. Yet, studies specific to female youth consumers in emerging markets like India remain limited.

- **Research Gap**

While several studies have examined the relationship between fashion consciousness and sustainable apparel consumption (Connell, 2010a; Park & Lin, 2020), most focus on direct effects and lack investigation of environmental concern as a mediating factor (Hasbullah et al., 2022; Kang et al., 2013). Furthermore, the existing literature is predominantly based on

Western or urbanized context, with little empirical work targeting youth females aged 15–29 in Tier-II cities of India—a group highly engaged with fashion and social media but rarely studied in this context (Shokeen et al., 2022a; Janpors et al., 2023a). Therefore, this study addresses these gaps by examining the direct and indirect influence of fashion consciousness through environmental concern on green apparel buying behavior among this emerging consumer segment.

2.2.2 Variety Seeking Behavior and Green Consumption Patterns

Variety-seeking behavior (VSB) is a well-studied concept in consumer behavior research. It refers to a Consumers tendency to seek variety in their purchases and switch between different products or brands, not out of dissatisfaction, but to experience novelty and keep a sense of excitement (Kaur et al., 2024; Zhang, 2022). A more contemporary definition of VSB emphasizes its complex nature, which is influenced by both internal factors (examples, personality traits, psychological states) and external influences (examples, social environment, physical surroundings). The emphasis has switched from primarily internal motivations, such as the need for novelty or optimal stimulation levels, to a broader context that incorporates external social effects, including economic disparity, social mobility, and physical environmental circumstances (Zhang, 2022). As environmental awareness increases, researchers have begun to investigate how this behavior relates to green apparel buying decisions. Digitalization has redefined variety-seeking in the context of online consumption (Jamil et al., 2022; Meißner et al., 2020). New definitions include how immersive digital environments affect customers' demand for variety (Kurdi et al., 2024; Ziyadin et al., 2019).

Variety-seeking behavior is based on consumer psychology and is defined by a desire for new and unique experiences. It is frequently motivated by factors including the need for change, curiosity, stimulation, and boredom reduction. Unlike habitual or brand-loyal behavior, variety-seeking occurs even when customers are satisfied with their past purchases. In apparel, variety-seeking behavior is represented by the buying of diverse styles, colors, and brands to diversify one's wardrobe and personal appearance (Workman & Caldwell, 2007). One significant stream of the literature suggests that variety-seeking behavior can act as a barrier to purchasing green apparel. Consumers with a strong desire for variety may prioritize novelty and fashion trends over sustainability, resulting in frequent purchases of fast fashion products. Fast fashion caters to variety-seeking

consumers by supplying a constant stream of new styles at low rates, encouraging regular purchases to stay updated with trends (Hageman et al., 2024; Joy et al., 2012b; Mehta et al., 2023). According to (Mcneill & Moore, 2015d), variety-seeking consumers may find green apparel less appealing since it emphasizes durability and timelessness, which contradicts their desire for regular wardrobe changes.

The slow fashion trend, which promotes fewer, high-quality purchases, may not meet variety-seeking behaviors need for novelty. (Niinimäki, 2010a; Polisetty et al., 2024) emphasizes the conflict between variety-seeking behavior and sustainability in fashion. It was discovered that consumers who value novelty and a frequent wardrobe are less inclined to wear green apparel, even if they are aware of the environmental benefits. This shows that VSB can impact pro-environmental sentiments by prioritizing the need for change and new experiences over ethical considerations (Polisetty et al., 2024). Despite conflicts between variety-seeking behavior and sustainability, some research studies suggest that fashion trends can bridge the gap by including green clothing in the variety-seeking experience (Bai et al., 2024). When sustainable fashion becomes fashionable, it can appeal to consumers who value diversity by providing novelty and excitement within a sustainable framework (Ritch, 2015b). For example, the rise of eco-friendly fashion collections from major brands, such as H&M's Conscious Collection, has made green clothing more affordable and trendier. (Menidjel et al., 2017; Moon et al., 2017) discovered that customers are high levels of VSB were more inclined to buy green clothing that was presented as attractive and trendy. The researchers contended that presenting sustainable clothing as part of a larger fashion trend could help satisfy Consumers desire for novelty while also encouraging green purchasing behavior. This shows that fashion marketers can utilize trend-based techniques to link VSB and sustainable consumption.

The importance of customer perceptions in determining variety-seeking behavior for green apparel cannot be emphasized. According to (Jung & Jin, 2016), the perception of green apparel as stylish or unfashionable is a key predictor of whether variety-seekers will adopt it. Consumers who perceive green clothing as stylish and trendy are more likely to view it as a feasible alternative for diversifying their wardrobe. In contrast, when green apparel is linked with outdated designs, variety-seekers are less likely to select it, even if they are ecologically conscious (Nandal et al., 2024). The relationship between variety-seeking behavior and green apparel buying behavior is also influenced by how consumers define fashion ability in sustainable clothing. Researchers observed that consumers with high

variety-seeking tendencies frequently value the visual appeal and distinctiveness of fashion items. As a result, sustainable attire that fits these requirements is more likely to be accepted by those looking for diversity. Green apparel manufacturers may change the perception of sustainable fashion from a practical choice to a desirable, stylish alternative by focusing on fashion-forward designs and unique aesthetics (Fazli-Salehi et al., 2024; Kang & Kim, 2013; Niinimäki, 2010a). Social influence has a considerable impact on the relationship between variety-seeking behavior and green apparel purchases. Social cues and peer judgements are major factors in fashion and are desired by consumers who want to try new things. When sustainability is presented as a trendy and socially acceptable choice, variety-seekers are more likely to meet social expectations and demonstrate their fashion-forwardness. Researchers discovered that consumers were more inclined to purchase green products that were linked with social status and exclusivity (Felicia & Widyastuti, 2024; Sakshi et al., 2024b).

Furthermore, the rise of sustainable fashion influencers and eco-conscious celebrities has boosted the status of green garments in the fashion industry. This trend has made green fashion more accessible to those looking for variety, who are motivated by a desire to emulate influencers and stay ahead of the trends (Kahn & Kumar, 2024; Menidjel et al., 2023). The availability of a varied range of green fashion options is another important aspect in influencing consumers who desire diversity. Several studies have highlighted that one of the major challenges to green apparel adoption is the limited selection of styles, colors, and designs (Kwon et al., 2023; Seo & Kim, 2023). Price sensitivity is a significant barrier for variety-seeking consumers, especially as their demand for frequent changes may result in increased overall spending. Green apparel, which is often priced high due to its sustainable manufacturing process, may be perceived as a less appealing option for variety-seeks who value quantity over quality. To address this, green apparel brands could pursue measures such as producing more inexpensive lines or emphasizing the long-term value and durability of their products (Alanadoly & Salem, 2022; Nagar & Gandotra, 2016). Variety-seeking can be defined as the desire to switch between different products or brands to try something new or different (Fischer et al., 2018; Hou et al., 2016). Researchers highlighted the moderating effects of variety seeking to predict the relationship between brand trust, platform trust and brand switching intention. It has a favorable influence on the relationship between platform trust and brand-switching intention. Furthermore, variety-

seeking has a beneficial impact on brand-switching intention (Wang, Y. et al., 2022; Le Tan & Trang, 2021).

The study highlighted the influence of motivation and satisfaction on variety-seeking behavior while repurchasing the product. Stated that variety-seeking will positively influence customer satisfaction and motivation. The more consumers are satisfied with the variety of the product, the more they are motivated to repurchase the same product (Kim et al., 2021). Variety-seeking behavior and green purchase intention have a positive association between both (Nagar K et al., 2021). Therefore, the literature demonstrates a complex relationship between variety-seeking behavior and green apparel buying behavior. VSB can be used to promote green apparel by positioning sustainable fashion as stylish and innovative. Environmental values, social norms, product innovation, and customization are important factors in shaping this relationship. To encourage sustainable fashion consumption among diverse consumers, manufacturers should focus on developing creative, trend-driven green apparel and providing customization choices. By combining the novelty and thrill of fashion with sustainability, it is possible to combine variety-seeking behavior with ecologically responsible consumption, resulting in a more sustainable future for the fashion industry. Hence, variety-seeking behavior is an important element when purchasing green apparel.

- **Discussion of Review of Literature**

Variety-Seeking Behavior (VSB) refers to a consumer's inherent desire to pursue novelty and diversity in their purchasing decisions, even when prior experiences have been satisfactory (Kaur et al., 2024; Zhang, 2022). Rooted in consumer psychology, VSB is often driven by internal motivations such as curiosity, optimal stimulation, or boredom reduction, as well as external influences including social cues and digital environments (Kurdi et al., 2024; Jamil et al., 2022). In the context of apparel consumption, VSB is reflected in the frequent switching of styles, colors, or brands to maintain novelty and personal uniqueness (Workman & Caldwell, 2007). However, this behavior can conflict with sustainable consumption patterns, particularly green apparel buying, which emphasizes durability, minimalism, and long-term value (McNeill & Moore, 2015d; Niinimäki, 2010a). Fast fashion, with its rapidly changing collections and affordability, appeals more directly to variety-seeking consumers, often undermining interest in slow or green fashion (Joy et al., 2012b; Hageman et al., 2024).

Despite this toughness, the literature suggests that sustainable fashion can appeal to variety seekers when it is perceived as trendy and diverse in design (Bai et al., 2024; Ritch, 2015b). Consumer perceptions of fashion ability play a significant role in determining whether green apparel satisfies their desire for novelty (Jung & Jin, 2016; Fazli-Salehi et al., 2024). Marketing efforts that frame sustainable clothing as stylish and unique can increase its attractiveness to this consumer segment (Kang & Kim, 2013). Environmental concern has also been identified as a potential mediator in this relationship. While VSB may prioritize aesthetic novelty over ethical considerations, consumers with higher environmental values may still choose green apparel if it aligns with their sustainability beliefs (Polisetty et al., 2024; Nandal et al., 2024). Price sensitivity and limited variety in green fashion offerings remain barriers for VSB-driven consumers (Seo & Kim, 2023; Alanadoly & Salem, 2022). However, studies indicate that when green apparel is affordable, fashion-forward, and customizable, it becomes a more viable choice for variety-seeking individuals (Menidjel et al., 2023; Kwon et al., 2023). Therefore, the literature points to a complex but potentially positive relationship between VSB and green apparel buying behavior, particularly when mediated by environmental concern.

❖ Research Gap

Although existing literature highlights the dynamic nature of VSB in influencing apparel choices, there is limited research that explores its indirect impact through environmental concern on green apparel buying behavior (Polisetty et al., 2024; Zhang, 2022). Furthermore, most studies focus on general adult consumers or fast fashion buyers in developed markets, while empirical research on youth females in India — particularly those aged 15–29 — remains limited (Jung & Jin, 2016; Kaur et al., 2024). This demographic is highly influenced by trends, social media, and novelty, yet simultaneously exposed to growing environmental discourse. However, how their variety-seeking tendencies interact with environmental concern to influence green apparel choices has not been adequately studied. Additionally, existing studies often treat VSB as a barrier to sustainability, without fully exploring how it might be leveraged through design innovation and marketing to promote green consumption. Hence, there is a clear need for research that investigates both the direct and indirect effects of VSB, with environmental concern as a mediating factor, particularly among female youth in emerging markets like India. This study aims to address this research gap.

2.2.3 Consumer Innovativeness and Adoption of Sustainable Fashion

Consumer innovativeness refers to a Consumers willingness to adopt new products, ideas, or experiences within a certain domain, motivated by both cognitive and emotional factors (Kaur et al., 2023; Workman & Lee, 2024). According to (Shah et al., 2022) consumer innovativeness is a personality trait that describes a person's propensity to buy and use new products more quickly and frequently than others. Environmental awareness and product safety concerns have an impact on the adoption of novel products. As per (Li et al., 2021), consumer innovativeness refers to the tendency to purchase and use new products more quickly and more often than other people, which reflects an important personality trait. This trait is crucial in determining the adoption patterns for new and unconventional products, such as sustainable and eco-friendly offerings. With the global rise in environmental consciousness, researchers have increasingly focused on determining how Consumers innovativeness drives green purchase, particularly in the apparel industry (Bin Kim et al., 2025; Pandian & J.Pari, 2024). Consumers who are fashion innovators look for the latest trends, are more willing to experiment with new looks, and frequently update their wardrobes. Extending this to green apparel, which frequently incorporates unconventional materials, production methods, or aesthetic appeal, it is acceptable to hypothesized that consumer innovativeness may be a significant factor driving the early adoption of sustainable fashion. Previous studies have consistently linked consumer innovativeness with the adoption of new products, including environmentally-friendly ones (Lin et al., 2024; Park & Kim, 2024).

According to the research by (Mathew et al., 2024), innovative consumers are more inclined to accept sustainable products because they want to try new things and take pride in being early adopters. For some consumers, wearing green clothing acts as a means to express their identity as innovators or trendsetters. As per the study by (Balasubramanian & Sheykhmaleki, 2024), consumers with high levels of innovativeness are frequently motivated by a desire to differentiate themselves from the mainstream. Innovative consumers are more likely to research and understand complex information about environmental sustainability, potentially increasing their willingness to support green fashion brands. (Mohamed & Wee, 2020;Yoo et al., 2021) discovered that highly innovative consumers are more likely to accept these products. (Tran Xuan et al., 2023) investigated the moderating role of innovativeness in green buying behavior and discovered that it positively enhances environmental concern on green apparel buying. A study by (Mohd

Suki & Mohd Suki, 2019) found that innovative consumers perceive green apparel's originality and uniqueness as appealing, increasing the likelihood of purchasing such products. This resonates with the idea that innovation motivates customers to explore new design solutions, making them more receptive to green apparel options.

According to (Kamalanon et al., 2022), more innovative consumers believe that buying green apparel will benefit the environment, which convert their buying intentions into actual buying behavior. The impact of symbolic meanings is another aspect that links consumer innovativeness to green apparel buying behavior. (Bakış & Kitapçı, 2023a) discovered that Consumers sentiments towards green clothing are influenced by many symbolic meanings, including environmentalism and innovation. The innovation sign connected with green fashion is particularly appealing to highly innovative consumers, who perceive it as an opportunity to display their identity as trendsetters and early adopters. This symbolic association strengthens their purchase behavior by increasing the perceived value of the product. Innovativeness also influences how consumers view the value of green clothes. According to the research, customers with greater levels of innovativeness are more sensitive to green products traits such as recycled material and green production (Alzubaidi et al., 2021; Naz et al., 2023). Thus, perceived value, as measured by environmental advantages and product originality, was found to have the substantial effect on the buying behavior of innovative consumers. Few studies by researchers (Lee et al., 2023;Kamalanon et al., 2022; Kim et al., 2018) highlighted the moderating effect of consumer innovativeness on green product attitude and buying intention.

Few studies have found that consumer innovation has a substantial impact on Consumers green purchasing behavior. Thus, more imaginative consumers are happier with eco-friendly products (Dangelico et al., 2021). The study examined the factors affecting Consumers pro-environmental behaviors. A study found that the strongest significant effect on behavioral intention to adopt pro-environmental behavior was innovativeness. Thus, consumer innovativeness positively influences pro-environmental behavioral intention (Alzubaidi et al., 2021). Hence, the literature revealed that consumer innovativeness has a significant impact on green apparel buying behavior. Innovative customers, who are open to new items and seek novelty, are more likely to overcome barriers such as price, perceived risk, and availability when purchasing green apparel. Also, consumer innovativeness is a significant driver of green apparel adoption, particularly when the products are marketed

as new, unique, and influential. Thus, the more innovative consumers are, the more they will buy green apparel (Dangelico et al., 2021; Kamalanon et al., 2022).

❖ Discussion of Review of Literature

Consumer innovativeness refers to an individual's inherent tendency to adopt and experiment with new products, ideas, or experiences, often driven by both emotional and cognitive motivations (Kaur et al., 2023; Workman & Lee, 2024). It is recognized as a personality trait that determines the likelihood of early adoption and openness to product innovation, including eco-friendly and sustainable apparel (Shah et al., 2022; Li et al., 2021). Innovative consumers actively seek novelty and enjoy being trendsetters, which may align well with the adoption of green apparel, particularly when these products are positioned as modern, experimental, or symbolically meaningful (Mathew et al., 2024; Bakış & Kitapçı, 2023a). Green apparel, which often involves novel materials, sustainable design methods, and ethical branding, is perceived favourably by consumers high in innovativeness, as they view such products as unique and future-forward (Lin et al., 2024; Mohd Suki & Mohd Suki, 2019). Additionally, innovative consumers tend to better understand complex environmental information and exhibit a higher willingness to support green brands (Mohamed & Wee, 2020; Yoo et al., 2021).

Environmental concern is a critical factor in this dynamic. Innovative individuals often display a higher level of environmental awareness and are more receptive to sustainability-focused messages (Tran Xuan et al., 2023). Studies indicate that consumer innovativeness can enhance or moderate the effect of environmental concern on green purchase intention (Lee et al., 2023; Kim et al., 2018), suggesting a possible indirect impact through environmental motivation. Thus, the literature suggests that consumer innovativeness positively influences green apparel buying behavior, both directly and indirectly, especially when products are presented as innovative and environmentally beneficial.

❖ Research Gap

Although there is growing academic interest in the role of consumer innovativeness in driving sustainable consumption, limited research has investigated the indirect pathway through environmental concern, particularly in the context of green apparel (Kamalanon et al., 2022; Tran Xuan et al., 2023). Most existing studies focus on general or adult populations, leaving a gap in understanding youth females aged 15–29, who are highly

influenced by innovation, fashion trends, and environmental messages (Workman & Lee, 2024; Mathew et al., 2024).

Additionally, the relationship between consumer innovativeness and green apparel buying has rarely been tested empirically in India, a country with a rapidly growing sustainable fashion market and a youth population increasingly exposed to global eco-conscious trends. Furthermore, while prior research has shown that innovativeness can moderate green purchase intentions, the mechanism through which environmental concern acts as a mediator remains underexplored. Hence, this study seeks to fill this critical gap by examining the direct and indirect effects of consumer innovativeness on green apparel buying behavior through environmental concern, focusing on youth females in India—a segment with high potential for driving sustainable consumption trends.

2.2.4 Role of Physical Product Attributes in Sustainable Apparel Choices

Physical product attributes are fundamental elements that define a product's appeal and impact consumer purchasing decisions. In the context of green apparel, qualities like fabric quality, design, durability, and aesthetic appeal have a significant impact on consumer perceptions and buying decisions (Khare, 2023b; Lavuri & Gopi, 2024a). Physical product attributes are tangible characteristics of a product, such as material composition, design features, color, style, and overall quality (He et al., 2024). These characteristics are crucial in the fashion industry as they influence the customers' experience and satisfaction. In green apparel, physical attributes are especially important as they communicate the product's sustainability credentials while also influencing its aesthetic value (Lavuri & Gopi, 2024b). According to (Li et al., 2023; Khan et al., 2022), physical product attributes are tangible features of a product that consumers can see, touch, and feel. These attributes include materials, size, shape, design, and other sensory characteristics that influence the product's appearance and quality. According to research by (Balasubramanian & Sheykhmaleki, 2024), physical features such as the use of organic or recycled materials, innovative eco-friendly colors, and waste-reducing designs (for example, zero-waste fashion) frequently impact customer preferences for sustainable apparel. They found that these product features significantly improve consumer perceptions of an apparel's environmental and social value, making consumers more likely to purchase green apparel.

Several studies stated that customers value green apparel differently from traditional clothing. The use of sustainable materials, product certifications (for example, organic

cotton), and minimalistic designs are viewed as indicators of environmental responsibility, which positively impact buying behavior. (Lin & Chen, 2022) emphasized that physical features, when combined with eco-labels, boost the perceived value of sustainable apparel, particularly among environmentally concerned buyers. However, the study also found that consumers understanding of sustainable apparel qualities is frequently imprecise, resulting in inconsistent buying decisions. For example, while consumers may prefer eco-friendly fabrics, the increased cost of these items can deter actual purchases, resulting in an attitude-behavior gap. The type of material used in clothes production is an important attribute that influences consumer preference. Eco-conscious shoppers prefer sustainable fabrics like organic cotton, bamboo, and recycled polyester because they reduce environmental impact. (Henninger et al., 2016b; Sharma & Foropon, 2019) found that customers value high-quality and ecologically friendly materials, leading to pay more for eco-friendly apparel. Color, style, and cut are all important design attributes for attracting consumers to green apparel. (Mandarić et al., 2022) emphasize that green apparel must match fashion standards in terms of style and aesthetics to appeal to mainstream consumers, in addition to being sustainable.

According to the survey, environmentally concerned shoppers are less inclined to choose sustainable apparel that lacks style or aesthetic appeal. Durability is another physical feature that has a big impact on consumer preferences. Durable apparel, which promises a longer lifespan, supports sustainability principles by promoting slower consumption patterns. Consumers view durable green apparel as a worthwhile investment; therefore, they are most inclined to choose it over less durable fast fashion options. (Balasubramanian & Sheykhmaleki, 2024) discovered that durability not only improves the functional values of green apparel but also reduces cognitive dissonance associated with high pricing. When it comes to green apparel, not all buyers prioritize physical product features equally. Customers can be segmented depending on their preferences for specific product attributes, allowing firms to personalize their offerings. For example, fashion-forward consumers prioritize style and design, while utilitarian buyers focus on durability and functionality. Understanding these segments can help firms focus on diverse features, such as high-quality sustainable textiles for durability-minded customers and cutting-edge eco-designs for trend-conscious purchasers. The impact of physical attributes on green apparel buying behavior does not occur in isolation.

According to research, material composition and design interact with environmental concern, societal influence, and generational preferences. (Lin & Chen, 2022) discovered that physical qualities have a more beneficial impact on younger consumers (Generation Y and Z) who are more ecologically conscious and fashion-sensitive. Furthermore, (Mandarić et al., 2022) found that older consumers prioritize durability and material quality, whereas younger generations are more influenced by style and creative features of green apparel. This shows that emphasizing specific qualities based on target demographics can help increase green apparel purchases. Consumers are conscious of product attributes while purchasing green apparel. Consumer behavior of buying green clothes is influenced by their evaluations of product attributes and their ability to provide value. It not only includes physical attributes but also the benefits in terms of protecting the environment that influence consumer purchase behavior (D'Souza et al., 2015b; Henninger et al., 2016b). When consumers receive good quality green apparel, they are ready to pay a higher price, resulting in an increased frequency of green garment purchases (Dangelico et al., 2021; Pranta et al., 2024). The study highlighted product attributes as influencing factors of green purchase behavior. Stated that for sustainable clothing, consumers not only pay attention to the quality, but also pay attention to green packaging and an eco-label, as these directly provide information, such as the production cycle, origin, and environmental footprint, which consumers are more interested in. The more consumers know about the product, the more willing they are to buy it. Hence, physical product attributes positively influence green purchase behavior (Taufique et al., 2024).

Studies revealed that physical product attributes are playing a significant role in buying green apparel. The most essential product features include price, style, and brand. Thus, there is a positive association between price, style, brand, and customers' buy intention for green apparel (Wiederhold & Martinez, 2018; Valaei et al., 2017). According to recent studies, physical product attributes significantly impact behaviors regarding green apparel purchases. The relationship between these tangible product characteristics, such as material quality, design, durability, and aesthetic appeal and green apparel buying behavior has been widely explored in the literature. Thus, the relationship between physical product attributes and green apparel buying behavior is complex and multidimensional. In the context of green clothes, physical product features are significant in determining consumer impressions and purchasing intentions. Material quality, design, durability, and certifications are all important factors in customer perceptions and purchasing decisions.

To encourage acceptance of green apparel, manufacturers should focus on designing goods that not only meet sustainability criteria but also exceed customer expectations for quality, style, and functionality. Hence, physical product attributes play an important role in the adoption of green apparel (Taufique et al., 2024; Wiederhold & Martinez, 2018).

❖ **Discussion of Review of Literature**

Physical product attributes are recognized as core components that shape consumer evaluations, influence attitudes, and directly impact purchasing decisions, especially in the context of green apparel (Khare, 2023b; Lavuri & Gopi, 2024a). These attributes—such as fabric quality, design, durability, and style—not only determine the aesthetic and functional appeal of the garment but also serve as key indicators of its sustainability credentials (He et al., 2024; Balasubramanian & Sheykhmaleki, 2024). Studies consistently show that consumers are attracted to sustainable clothing when physical attributes meet their expectations of fashion, quality, and environmental responsibility. For instance, organic materials, zero-waste designs, and the use of recycled fabrics positively influence perceptions of green apparel (Henninger et al., 2016b; Sharma & Foropon, 2019). Similarly, features such as eco-labels, certifications, and green packaging reinforce trust in the brand and boost purchase intention (Lin & Chen, 2022; Taufique et al., 2024).

Durability stands out as a valued attribute, as it supports sustainability by promoting longer usage and reducing the frequency of purchase, thereby aligning with slow fashion ideals (Balasubramanian & Sheykhmaleki, 2024). Meanwhile, visual elements such as color, design, and fit are crucial to attracting young, trend-sensitive consumers (Mandarić et al., 2022). The literature also emphasizes that the impact of physical product attributes is not uniform across consumer segments—utilitarian buyers may prioritize functionality and quality, whereas fashion-conscious individuals seek novelty and design appeal. Several studies note a strong interaction between physical product attributes and Consumers green purchase behavior, often mediated by environmental concern, perceived product value, and lifestyle preferences (D'Souza et al., 2015b; Wiederhold & Martinez, 2018). Informed consumers are more willing to pay premium prices for green products when they perceive high value in terms of both environmental impact and product quality (Dangelico et al., 2021; Pranta et al., 2024). Overall, the review highlights that physical product attributes are not only important cues of sustainability but also strategic levers in shaping consumer behavior toward green apparel. Therefore, firms that prioritize product innovation, material

integrity, and visual appeal are better positioned to influence consumer choice and promote sustainable fashion.

❖ **Research Gap**

Despite growing literature on green apparel, limited research acknowledges the influence of physical product attributes on consumer buying decisions in the green apparel sector, few studies have empirically explored this relationship in the Indian context, particularly among youth females, who represent a significant and fashion-conscious consumer base (Taufique et al., 2024; Wiederhold & Martinez, 2018). While prior studies have separately addressed product features and consumer perception, the interrelationship between tangible attributes and psychological attitudes toward sustainable fashion remains underexplored.

Moreover, there is insufficient understanding of how specific product attributes—such as eco-friendly materials, durability, and certifications—affect attitudes and how these attitudes subsequently influence green apparel buying behavior. Particularly among youth consumers, who are both fashion-sensitive and environmentally aware, this interaction needs deeper empirical examination (Mandarić et al., 2022; Taufique et al., 2024). Therefore, this study aims to bridge this gap by examining the direct relationship between physical product attributes and green apparel buying behavior, focusing specifically on youth females, a demographic highly relevant to the fashion domain.

2.2.5 Attitude Toward Green Products and Buying Behavior

Attitude is defined as a person's overall evaluation of people, objects, or ideas, which influences their thoughts, feelings, and behaviors. It has various dimensions, such as affective responses (emotional reactions), cognitive beliefs (perceptions and thoughts), and behavioral tendencies. This multidimensional nature makes attitude a core concept in psychology, influencing a wide range of actions and decisions (Huajian, 2024; Nagadeepa & Glady Agnes, 2024a). According to the multicomponent model, attitudes are derived from three primary sources: affective responses, cognitive judgements, and behavioral information. This model describes how various internal components (such as emotions, beliefs, and experiences) interact to provide a coherent appraisal of an item or situation. The interaction of these components is crucial in understanding how attitudes influence behaviors, particularly consumer decision-making in various contexts like health or environmental behaviors (Frontiers Research Topic, 2024). In social psychology, attitudes are seen as key factors of individual responses to social stimuli. Attitudes are complex

because of their flexibility and applicability across a wide range of societal issues, including public health, technological adoption, and pro-environmental behavior. Because of their adaptability, attitudes are a versatile construct that has been extensively researched across different disciplines (Albarracin et al., 2024).

Attitude is an important psychological factor in predicting and influencing customer behavior, particularly in the context of environmentally friendly products like green apparel. It is defined as Consumers behavior in a positive or negative way toward a given object, behavior, or situation. Recent research has extensively explored how positive attitudes towards sustainability and environmental responsibility influence green apparel buying behavior. Recent studies demonstrate that a positive attitude towards sustainable fashion has a significant influence on buying intentions, specifically in the context of green apparel. For example, (Balasubramanian & Sheykhmaleki, 2024) revealed that consumers having positive attitude towards green apparel mostly indicate strong purchase intentions, motivated by their beliefs about the eco-friendly benefits and ethical production practices of such products. Similarly, (Rūtelionė & Bhutto, 2024a) found that attitude plays an important role in mediating the relationship between psychological benefits (such as self-expression and environmental benefits) and green apparel buying behavior among Generation Z consumers. Their study found that when young customers have a positive attitude towards sustainable clothes, it significantly increases their intention to purchase and eventually leads to higher adoption of green fashion products. Despite the strong correlation between positive attitudes and purchase intentions, a significant gap often exists between these attitudes and actual buying behavior. This disparity, known as the attitude-behavior gap, has been highlighted in multiple studies. For example, (Nagadeepa & Glady Agnes, 2024a) observed that while many consumers express positive attitudes towards sustainable fashion, factors such as high costs, limited availability, and perceived lower quantity prevent these attitudes from translating into actual purchases.

To bridge the attitude-behavior gap, firms should provide consumers with thorough information about the environmental and ethical benefits of green apparel. This can strengthen positive attitudes and encourage purchase behavior (Lin & Chen, 2022). Also, making green apparel more affordable and accessible can help reduce the gap between positive attitudes and actual purchase (Nagadeepa & Glady Agnes, 2024b). improving the visual appeal and quality of green apparel can help align consumer views with behavior, especially among fashion-conscious consumers who may perceive a trade-off between style

and sustainability (Rūtelionė & Bhutto, 2024a). Attitude based on purely symbolic benefits, such as status signaling, may not have the same effect. (Bakış & Kitapçı, 2023b) showed that while symbolic meanings can increase attitudes, they do not always convert into consistent buying behavior. They suggest that a balance of functional and symbolic benefits is important to strengthen the attitude-behavior link. Attitude has been extensively explored in green consumerism, where it serves as a vital element in shaping pro-environmental behavior. According to (Rasheed et al., 2024), having a positive attitude towards eco-friendly products significantly increases the likelihood of acquiring green items, especially clothes. This is particularly obvious in research that emphasize the importance of environmental concerns in encouraging green purchase decisions. Several studies on green clothes have found that attitude is a key factor of consumer choice.

According to (Han et al., 2010), a positive attitude towards eco-friendly clothing results from environmental awareness and ethical beliefs, which in turn influence purchasing intentions. These attitudes frequently stem from a Consumers perceived value of sustainable practices, such as reduced environmental impact and social responsibility (Chen & Chang, 2012b). Additionally, studies by (Niinimäki, 2010a) emphasized that the ethical and environmental values associated with green apparel appeal to Consumers emotions, making them more likely to buy these items. Attitude towards the environment has a positive influence on green consumer behavior (Taufique, 2022; Taufique et al., 2017;Dhir et al., 2021b).

Studies have shown that attitude influences buying intention for green clothes. The findings demonstrated that customer attitude has a substantial positive relationship with intentions to purchase green clothing and favorably influences green purchase intention (Henninger et al., 2016c; Kamalanon et al., 2022; Nguyen et al., 2019). Many studies on Green Consumer Behavior found that environmental attitudes have a direct relationship with buying behavior (Bhuian et al., 2018). While attitudes have a significant impact on green clothing purchasing behavior, they are determined by a complex interplay of personal, societal, and situational factors. Hence, attitude has a positive association with green apparel buying behavior (Taufique, 2022; Taufique et al., 2024).

- **Discussion of Review of Literature**

Attitude is a key psychological determinant that significantly influences consumer decision-making, particularly in sustainable consumption contexts. According to the

multicomponent model, attitude comprises affective, cognitive, and behavioral components—each shaping a consumer's overall evaluation and response toward objects, behaviors, or ideas (Huajian, 2024; Frontiers Research Topic, 2024). This multidimensional nature makes attitude a crucial variable in understanding consumer behavior, including pro-environmental choices like green apparel consumption.

In the context of green apparel, attitude reflects Consumers positive or negative evaluations of sustainable fashion and is shaped by beliefs about environmental responsibility, ethical manufacturing, and personal values (Nagadeepa & Glady Agnes, 2024a; Albarracin et al., 2024). A growing body of research has consistently demonstrated that positive attitudes towards eco-friendly products lead to stronger purchase intentions (Balasubramanian & Sheykhmaleki, 2024; Rasheed et al., 2024). Consumers who value sustainability often consider green apparel as an extension of their ethical self-concept and are therefore more inclined to engage in green purchase behavior (Han et al., 2010; Chen & Chang, 2012b). Studies have highlighted the influence of psychological benefits such as self-expression and environmental concern in shaping favourable attitudes toward green apparel. These positive attitudes, in turn, act as mediators that drive purchase intention and adoption, especially among youth consumers (Rūtelionė & Bhutto, 2024a; Taufique, 2022).

Attitudes influenced by both functional (e.g., durability, comfort) and symbolic (e.g., self-identity, social status) motivations are more likely to be converted into purchase behavior when products satisfy both dimensions effectively (Taufique et al., 2024). Thus, the literature affirms that attitude is a fundamental factor in shaping green apparel buying behavior. A positive attitude toward sustainable fashion increases the likelihood of adoption, particularly when reinforced by congruent product attributes and supportive external conditions. Understanding how attitude influences buying behavior provides valuable insight into consumer psychology and sustainable marketing strategies.

- **Research Gap**

Although prior studies have extensively examined the role of attitude in green consumerism, most have emphasized its direct impact on purchase intention without thoroughly investigating its actual translation into buying behavior—especially in the context of green apparel (Taufique et al., 2024; Dhir et al., 2021b). Furthermore, limited research explores the attitude of female youth consumers in Tier-II Indian cities, a demographic increasingly relevant in shaping future sustainable consumption patterns.

Most studies focus on broader consumer groups or Western contexts, leaving a gap in understanding localized behavior and cultural influences that shape attitude formation and expression in emerging economies.

Additionally, while attitude is often studied in isolation, there is a scarcity of integrative research examining how attitudes are shaped by other determinants (e.g., physical product attributes) and how these variables work together to influence green apparel buying behavior. Hence, the present study aims to bridge this gap by investigating the relationship between attitude and green apparel buying behavior among female youth, thereby offering deeper insight into how psychological evaluations convert into sustainable actions.

2.2.6 Environmental Concern and Eco-Friendly Purchase Decisions

Environmental concern is a multidimensional construct that reflects people's awareness, attitudes, and behavioral intentions regarding environmental issues. It combines cognitive, affective, and behavioral components, making it an important predictor of pro-environmental behavior, including sustainable buying patterns such as green apparel purchases. A recent study by (Oliveira et al., 2023) describes environmental concern as an individual's awareness of environmental problems and their willingness to support efforts to reduce these problems through conscious behavior and policy advocacy. This approach emphasizes not just the cognitive recognition of environmental challenges but also the affective and behavioral motives that drive actions, such as purchasing sustainable products. According to a review by (Cruz & Manata, 2020), environmental concern is defined as a worldwide assessment of the environment that is impacted by values and attitudes towards nature. This conceptualization is consistent with the multicomponent model of attitudes, in which environmental concern is derived from beliefs, emotions, and norms related to environmental protection. The study emphasizes that environmental concern has an important role in predicting environmentally responsible behaviors, such as green apparel consumption. The most recent research by (Acosta-Ponce et al., 2024), defines environmental concern as a predictor of environmentally sustainable behaviors, such as buying eco-friendly apparel or supporting green policies. Researchers emphasize that measuring environmental concern requires analyzing not only general attitudes but also specific behavioral intentions and actions (for example, recycling, reducing waste, or favoring green apparel). Recent studies highlight the strong relationship between environmental concern and green apparel buying behavior, indicating that customers who

are more conscious of environmental issues are significantly more likely to buy sustainable clothes.

It influences green apparel buying behavior by shaping Consumers beliefs, attitudes, and ultimately their intentions and behaviors (Acosta-Ponce et al., 2024; Cruz & Manata, 2020). Environmental concern is widely recognized as a primary predictor of green buying behavior. According to (Liu et al., 2024a), the study discovered that environmental incidents, such as pollution disasters, increase environmental consciousness and lead to higher green apparel purchases among this demographic. (Balasubramanian & Sheykhmaleki, 2024) consumers pay more for green apparel as they value its eco-friendly qualities, such as organic materials and a sustainable production process. Environmental awareness and knowledge act as mediators between environmental concern and green apparel buying behavior. (Lin & Chen, 2022) argue that while environmental concern is the initial motivator, it is environmental knowledge that allows consumers to distinguish between truly sustainable items and greenwashing. As consumers become more aware, they are more inclined to act on their environmental concerns by purchasing authentic green apparel. (Farzin et al., 2023) showed that consumers who believe their activities have an impact on the environment are more inclined to exhibit their environmental concern by buying green apparel. This belief strengthens the relationship between concern and behavior, resulting in more consistent adoption of sustainable fashion.

(Lin & Chen, 2022) discovered that younger generations (for example, Generation Z and Millennials) have a stronger relationship between environmental concern and green apparel buying behavior than older generations. This difference is attributed to generational variations in environmental attitudes and the willingness to integrate sustainability into lifestyle choices. (Liu et al., 2024a) suggest that brands should work on improving the perceived quality and aesthetic appeal of green apparel to align customer attitudes with buying behavior. Social norms and peer pressure also play an important role in converting environmental concern into actual purchases. When sustainable fashion is perceived as socially acceptable, people who are concerned about the environment are more likely to purchase green apparel to conform to these norms. (Balasubramanian & Sheykhmaleki, 2024) emphasized that social acceptability and peer approval can enhance the impact of environmental concern, particularly among younger customers who are more responsive to social cues. As per the research by (Sadiq et al., 2020; Kamalanon et al., 2022),

environmental concern is a key factor in determining Consumers pro-environmental activities.

In this study by (Kumar et al., 2022) the researchers forecast the eco-friendly clothes purchase intention of educated Indian youths. As a result, environmental concern is shown to have an indirect effect on purchase intention via the three core TPB factors and personal moral standards. The study by (Wu Yingying & Islam Mayedul, 2022) investigates the link between customers' online apparel shopping behaviors and their pre-existing concern about the apparel industry's negative impact. The study shows no association between customers' online purchase behaviors and their current levels of environmental concern. According to the study by (Rizkalla et al., 2022) environmental concerns have no direct impact on the intention to buy green apparel. Instead, it has an indirect impact on purchasing intention via attitude. (Dangelico et al., 2021; Rasheed et al., 2024) stated that higher the environmental concern, the higher the buying satisfaction and the higher the green purchasing behavior.

Environmental concern often plays a key mediator role in the relationship between various psychological and contextual factors and green apparel buying behavior. In the context of sustainable fashion, environmental concern acts as an intermediary mechanism that translates abstract environmental values or external stimuli (for example, exposure to green marketing) into concrete purchase intentions and behaviors. Studies frequently illustrate that environmental concern mediates the relationship between broader environmental values (for example, biospheric values) and green apparel buying behavior. For example, (Liu et al., 2024a) investigated how environmental concern connects Generation Z's overall environmental values to their intentions to purchase green apparel. Research shows that individuals with strong environmental values are more likely to be concerned about the environment, leading to higher interest in purchasing green apparel. Similarly, (Lin & Chen, 2022) discovered that those who hold strong pro-environmental attitudes, environmental concern acts as a key mediator, transforming these attitudes into actionable purchasing intentions. Environmental knowledge is defined as a thorough awareness of environmental issues, which often increases Consumers level of environmental concern, which influences their buying decisions. In this context, environmental concern serves as a mediator by converting knowledge into intention and action. For example, (Balasubramanian & Sheykhmaleki, 2024) found that individuals with strong environmental knowledge are more concerned about the environment, leading to a preference for green apparel over

conventional options. This research implies that simply educating customers may not be enough; rather, enhancing their concern is what drives behavior change. (Farzin et al., 2023) investigated how social variables, such as peer approval and community norms, lead to increased environmental concern, which strengthens green buying intentions. A study indicated that when individuals perceive that their peers prioritize environmental sustainability, they are more likely to by green apparel. This means that social norms are internalized through increased concern for the environment, which eventually shapes behavior. Marketing communications, particularly those emphasizing the environmental impact of fashion, can increase Consumers environmental concern, which in turn influences their buying behavior.

According to the studies by (Corboș et al., 2024; Lin & Chen, 2022), when consumers see commercials highlighting the eco-friendly attributes of green apparel, their environmental concern grows. Overall, environmental concern is a key driver of green apparel buying behavior, but its impact is influenced by several factors. It also serves as a key mediator between different antecedents and green apparel buying behavior. It transforms abstract environmental values and contextual factors into concrete purchasing behaviors, making it an important target for interventions aimed at promoting sustainable fashion consumption. While high environmental concern often leads to a greater willingness to purchase green apparel, barriers such as high costs, perceived lack of quality, and limited product availability often prevent these attitudes from translating into actual behavior. Addressing these barriers and improving alignment between consumer values and product attributes can increase the link between environmental concerns and green clothes purchasing behavior, promoting more sustainable fashion consumption. As a result, the more consumers are concerned about the environment, the more there will be green buying behavior (Balasubramanian & Sheykhmaleki, 2024; Dangelico et al., 2021).

- **Discussion of Review of Literature**

Environmental concern has emerged as a pivotal construct in predicting pro-environmental behaviors, particularly in the domain of green apparel consumption. It encompasses a multidimensional framework that integrates cognitive awareness, affective sensitivity, and behavioral intention toward environmental preservation (Oliveira et al., 2023; Cruz & Manata, 2020). Researchers stated that environmental concern acts as both a direct driver and an intervening variable influencing green purchasing decisions. It influences green

apparel buying behavior by shaping Consumers awareness and emotional responses to environmental issues. Individuals who are deeply concerned about ecological degradation often express their values through sustainable consumption, including a preference for eco-friendly clothing (Acosta-Ponce et al., 2024; Liu et al., 2024a). It has been noted that consumers with higher environmental concern are more likely to purchase green apparel, perceiving it as a reflection of their commitment to sustainability and ethical responsibility (Balasubramanian & Sheykhmaleki, 2024). Some researchers indicate that environmental concern operates not only as a direct determinant of buying behavior but also as a mediator between antecedents like fashion consciousness, variety-seeking behavior, consumer innovativeness, and green apparel buying behavior (Lin & Chen, 2022; Farzin et al., 2023). For instance, individuals with higher environmental knowledge are often more environmentally concerned, which translates into stronger behavioral intentions to purchase green apparel (Sadiq et al., 2020; Rizkalla et al., 2022).

Environmental concern is also found to mediate the relationship between personal psychological traits and green buying behavior. For example, female youth, who are frequently exposed to environmental discourse through education and media, exhibit higher levels of environmental concern and are more likely to adopt sustainable apparel (Liu et al., 2024a; Kumar et al., 2022). Marketing efforts and media campaigns that emphasize sustainability are also effective in fostering environmental concern, thereby influencing Consumers attitudes and subsequent behaviors (Corboș et al., 2024). However, the effectiveness of environmental concern in influencing green apparel buying behavior depends on mediating variables, including individual traits (like variety seeking), situational contexts, and perceived behavioral control.

Therefore, environmental concern plays a dual role—it is both a direct influencer and a mediating construct that enhances the predictive power of other variables such as variety-seeking behavior. The literature affirms that this relationship is particularly significant among youth consumers who are more likely to internalize sustainable values and reflect them in their clothing choices (Lin & Chen, 2022; Liu et al., 2024a).

- **Research Gap**

Despite extensive research on environmental concern and green apparel buying behavior, significant gaps remain in understanding the mediating role of environmental concern between fashion consciousness, variety-seeking behavior, consumer innovativeness, and

green apparel buying behavior, particularly among youth females in emerging economies like India (Liu et al., 2024a; Khare, 2023c). Furthermore, studies that explore indirect pathways, where environmental concern acts as a mediator between internal consumer traits (like novelty-seeking or variety-seeking behavior) and green purchasing behavior, are rare (Tryphena & Aram, 2023; Rasheed et al., 2024). The few that exist have not focused specifically on youth female demographics, who are both highly fashion-conscious and socially responsive to environmental issues (Liu et al., 2024c; Abbas et al., 2024).

Additionally, research in the Indian context, particularly among female youth from Tier-II cities, remains underexplored (Khare, 2023c; Taufique & Vaithianathan, 2018). This demographic represents a unique consumer segment due to their increasing exposure to sustainability narratives and growing purchasing power, but is largely overlooked in current academic literature (Nguyen et al., 2019; Shen & Saijo, 2008). Therefore, the current study seeks to address these gaps by examining the direct and indirect effects of fashion consciousness, variety-seeking behavior, and consumer innovativeness on green apparel buying behavior through environmental concern, focusing specifically on female youth. This will offer deeper insight into the psychological and behavioral mechanisms that drive sustainable consumption in a fast-evolving fashion market.

2.2.7 Green Apparel Buying Behavior

Buying behavior refers to the decisions and behaviors that people make while purchasing products or services. It includes a variety of psychological, social, and personal factors that influence consumer behavior. In the context of apparel, buying behavior refers to how people choose, purchase, use, and dispose of clothing. (Schiffman & Kanuk, 2007) describe consumer buying behavior as “the actions and decision-making processes of people who buy goods and services for personal consumption”. When it comes to green apparel, variables such as environmental consciousness, sustainability awareness, societal impact, and personal values all influence buying decisions. (Connell, 2010b) discovered that Consumers desire to buy green apparel is frequently influenced by their level of environmental concern, their impression of the clothing’s quality, and the influence of social norms. According to a study by (Rūtelionė & Bhutto, 2024b), green apparel buying behavior is defined as the outcome of Consumers efforts to choose eco-friendly clothing. This definition includes carbon footprint reduction, sustainable production, and the use of organic or recycled materials. The study also underlines that green apparel buying behavior

is influenced by both utilitarian (functional) and hedonic (emotional) benefits, resulting in a complex decision-making process that encompasses multiple dimensions of consumer motivation. (Dhir et al., 2021a) defined it as a behavior impacted by external stimuli (example: eco-labels or green marketing), which subsequently affect internal psychological states (example: satisfaction with labelling and desire for eco-friendly products), leading to purchase intentions and behavior. This study reveals that green apparel buying behavior is not only a direct response to environmental concern, but is also shaped by how effectively eco-friendly attributes are communicated to consumers. (Balasubramanian & Sheykhmaleki, 2024) define green apparel buying behavior as a subset of broader pro-environmental behaviors in which consumers intentionally choose to buy clothing that promotes environmental sustainability. This behavior is seen as an expression of Consumers commitment to reducing their environmental impact through responsible consumption.

Green apparel buying behavior refers to the purchasing decisions and patterns that consumers make while selecting eco-friendly apparel. The increase in environmental consciousness, along with a growing preference for sustainability, has caused a shift in the fashion industry, driving many brands to incorporate green practices into their manufacturing and marketing strategies. Green apparel encompasses clothing items made with ecologically friendly procedures, such as organic materials, sustainable manufacturing processes, eco-friendly dyes, and fair labor practices. (Balasubramanian & Sheykhmaleki, 2024) suggest that green apparel is designed to reduce environmental effects while also promoting the well-being of supply chain workers and communities. Given the fashion industry's role in pollution and resource depletion, there is shift towards sustainable development. According to recent studies, customers' interest in green clothes is increasing, driven by concerns about climate change, pollution, and ethical considerations. (Liu et al., 2024a) discovered that Generation Z prefers green clothes to show their dedication to environmental sustainability. This generational shift emphasizes the need for a better knowledge of the psychological, social, and situational factors that drive green apparel buying behavior. Few studies highlight the factors influencing green apparel buying behavior. This environmental concern is a critical driver of green consumption behaviors, including apparel purchases. According to (Lin & Chen, 2022; Solaiman & Rana, 2023), individuals who are concerned about the environment are more inclined to buy green apparel since it aligns with their values and promotes sustainability. (Balasubramanian &

Sheykhmaleki, 2024) claim that environmental concern is a significant motivator for consumers who prioritize sustainable attributes, such as organic cotton or recycled polyester, when making apparel choices. (Liu et al., 2024b) thus, increasing the impact of environmental concern on buying behavior requires addressing these barriers through strategies such as improved product availability and competitive pricing.

Attitude is another factor influencing green apparel buying behavior. It is a psychological construct that expresses a person's favorable or unfavorable perception of a specific object or behavior. Environmental concern, perceived product quality, and social standards all influence Consumers attitude towards green apparel. According to the research by (Lin & Chen, 2022), a positive attitude towards green apparel significantly predicts buying intentions. Consumers who view green apparel as fashionable, high-quality, and environmentally friendly are more likely to express strong buying intentions. Nonetheless, the persistence of the attitude-behavior gap is a major challenge. While many consumers have a positive attitude towards sustainable fashion, only a small percentage purchase green clothing. This gap can be attributed to factors such as the higher cost of green products, perceived compromises in styles, and a lack of clear information regarding the benefits of green apparel (Farzin et al., 2023). Perceived Consumer Effectiveness (PCE) is an effective predictor of green apparel buying behavior because it enhances Consumers sense of control and responsibility. According to research by (Liu et al., 2024a), consumers with high PCE are more likely to transfer their environmental concerns into actual buying behavior. (Farzin et al., 2023) revealed that PCE mediates the relationship between environmental concern and green apparel buying behavior, implying that improving Consumers perceptions of effectiveness can strengthen the link between concern and behavior. Social influence, such as social pressure, family expectations, and societal norms, plays an important role in shaping green apparel buying behavior. According to the research by (Huang et al., 2024; Lin & Chen, 2022), social norms have a key role in the adoption of green clothes, especially among younger consumers who value peer approval. When sustainable fashion is perceived as socially desirable, individuals are more likely to engage in green apparel buying to conform to these norms (Do & Do, 2024; Yang et al., 2024b). Furthermore, the rise of social media has increased the power of social influence on green apparel buying behavior, with influencers shaping consumer attitudes and encouraging green buying behavior (Abbas et al., 2024; Farzin et al., 2023).

Many research studies have shown that green apparel buying behavior has been positioned as a dependent variable, influenced by a variety of independent variables, such as environmental concern, attitudes, social norms, perceived consumer effectiveness, and more. This approach allows researchers to understand how different psychological, social, and contextual factors contribute to shaping Consumers intentions and decisions to purchase eco-friendly fashion. Several research studies have found that environmental concern significantly influences green apparel buying behavior. For example, (Lin & Chen, 2022; Rasheed et al., 2024) employed environmental concern as an independent variable and discovered that it positively influences buyers' intention to purchase sustainable apparel. The study examined green apparel buying behavior by analyzing customers' intentions and actual patterns. (Balasubramanian & Sheykhmaleki, 2024) investigated how younger Consumers growing concern towards the environment drives their buying behavior for green apparel, proving the impact of environmental values on actual buying decisions. Attitude towards green apparel is often investigated as an independent variable that influences the dependent variable, green apparel buying behavior. For example, in the studies conducted by the researchers (Khare, 2023c; Rūtelionė & Bhutto, 2024c), positive attitude towards green apparel was found to be a significant predictor of purchase intentions and behaviors among Generation Z consumers. The researchers analyzed self-reported data on recent purchases of eco-friendly apparel. This demonstrates how attitude influences the adoption of sustainable fashion. In various studies, perceived consumer effectiveness influences green apparel buying behavior by enhancing the likelihood that consumers will choose environmentally friendly options. Researchers (Solaiman & Rana, 2023; Tryphena & Aram, 2023) indicated that green apparel buying behavior is influenced by PCE levels. Researchers (Lin et al., 2023; Xiao et al., 2023) investigated how social norms influence Consumers sustainable choices and found that when sustainable fashion is perceived as socially desirable, green apparel buying behavior increases. Here, green apparel consumption acted as the dependent variable that varied based on social norms and influences.

Researchers (Corboș et al., 2024; Liu et al., 2024a) showed that when customers were exposed to green marketing messages, their level of environmental awareness increased, resulting in higher green apparel purchases. Thus, green apparel buying behavior acts as the dependent variable, influenced by exposure to green marketing strategies and subsequent changes in environmental concern. Specific product attributes, such as quality,

durability, style, and eco-certifications, have been tested as independent variables affecting green apparel buying behavior. (Farzin et al., 2023) investigated how these characteristics influence Consumers likelihood of choosing sustainable apparel over traditional options. The dependent variable, green apparel buying behavior, was examined using Consumers self-reported preferences and actual purchasing decisions when presented with varying product features. Hence, green apparel buying behavior is influenced by various factors, including environmental concern, attitudes, fashion consciousness, and variety seeking behavior. By positioning green apparel buying behavior as a dependent variable, the impact of these predictors can be determined on sustainable consumption.

Section 3: Influence of Demographic Variables on Green Apparel Buying

Understanding green buying behavior is crucial in today's market environment, where sustainable consumption is increasingly becoming a priority for both consumers and companies. The increased awareness of environmental issues has increased demand for eco-friendly products, and marketers must understand the demographics that drive green apparel purchasing behavior. Demographic variables such as age, gender, income, and education have a significant impact on green purchasing habits and provide insights into which consumer segments are more likely to adopt sustainable behaviors. Recent studies have demonstrated that demographic factors are key determinants in shaping attitudes, preferences, and behaviors related to green consumption (Nguyen et al., 2019). By analyzing these variables, researchers and marketers can develop effective segmentation methods for promoting green products to the right target audiences. This literature review investigates the impact of age, gender, wealth, and education on green purchasing decisions, using the most recent research to highlight current trends and provide a thorough understanding of how these factors interact.

2.3.1 Impact of Age on Green Buying Behavior

Age is one of the most significant demographic factors impacting green apparel buying behavior. Different age groups show varying levels of environmental concern, willingness to pay for environmentally friendly products, and engagement in sustainable consumption behaviors. Several recent studies have explored the role of age in shaping green consumer behavior, with a specific emphasis on generational differences between younger and older consumers. Younger generations, particularly millennials and Generation Z, have been found to have stronger environmental values and a greater propensity to engage in green

buying behavior than older generations (Bhalla et al., 2023). This tendency is often attributed to the greater exposure of younger consumers to environmental education, social media, and global sustainability movements. (Liu et al., 2024c) conducted a study on green apparel buying behavior of Generation Z and revealed that Gen Z purchase eco-friendly products and supports sustainable brands. Researchers attribute this to their higher environmental awareness and social media influence, which encourages pro-environmental attitudes. In this study, the researchers (Sobuj et al., 2021) examined the factors influencing green apparel buying behavior among young consumers and found that younger people are more inclined to adopt green apparel than older adults. The study concludes that age-related differences in green buying behavior are driven by differences in lifestyle, environmental knowledge, and perceived social norms. When it comes to green products, older generations prioritize health benefits over environmental concerns (D'Souza et al., 2007). While they may engage in green consumption, their motivations are often driven by personal well-being rather than environmental sustainability.

Age influences not only the likelihood of buying green but also the underlying motivations and hurdles. (Hwang & Kim, 2018) found that younger customers regard green products as trendy and socially responsible, but older consumers prioritize product quality and durability. Younger age groups are also more influenced by social media and peer opinions, which can either encourage or discourage individuals from using environmentally friendly items. Barriers to green consumption also differ by age. While younger consumers may have budgetary constraints, older consumers may lack trust in green items since they are less conversant with sustainability concepts. Understanding these hurdles is essential for developing targeted marketing strategies that address age-specific concerns.

2.3.2 Gender and Green Buying Behavior

Gender disparities have been extensively investigated in the context of green consumer behavior. Several studies have shown that gender has a substantial impact on green apparel purchasing preferences, with women generally demonstrating stronger environmental awareness and a higher propensity to purchase eco-friendly products than men. These differences can be attributed to varying values, motives, and socialization patterns between males and females (Zelezny et al., 2000). Furthermore, gender differences in perceptions of green products and marketing messages influence the effectiveness of sustainability initiatives targeting male and female consumers. (Zelezny et al., 2000) across cultural

contexts, women are more likely to engage in eco-friendly behavior such as recycling, purchasing organic clothes, and reducing waste. The researchers explain these gender differences to socialization processes that emphasize care and responsibility in women's upbringing. (K. Lee, 2009) examined gender differences in green buying behavior among adolescents and found that female adolescents are more likely to support green products and are more influenced by environmental advertising appeals. According to the study, female customers are more likely to respond positively to green marketing messages that emphasize the social and ethical aspects of sustainability. The literature identifies several factors that drive the higher eco-consciousness among female consumers. Women's concerns about health, safety, and family welfare have a significant impact on their green consumption decisions.

(Laroche et al., 2001) discovered that women see green products as safer and healthier for their families, motivating them to prefer eco-friendly alternatives. Furthermore, women's engagement in household shopping decisions frequently extends to choosing green products that reflect their values of caring and protection. The researchers found that women are more likely to pay a premium for eco-friendly products because they believe they are safer for their family. The study also highlights that women's pro-environmental behavior is related to their roles as primary caregivers and their concern for future generations (Laroche et al., 2001). The researchers (Luchs & Mooradian, 2012) investigated the impact of gender in sustainable consumption and discovered that women's higher empathy levels and stronger community orientation lead them to prioritize the welfare of others, including the environment. In contrast, males are more influenced by status-oriented motivations. Marketers targeting female consumers often use emotional appeals, emphasizing the social and health benefits of using green apparel. (Sudbury-Riley & Kohlbacher, 2016), stated women are more likely to respond positively to green marketing messages that emphasize the ethical and altruistic aspects of sustainability. In contrast, marketing strategies aimed at male consumers tend to emphasize product performance and status benefits, as males are generally more interested in product functionality. (Sudbury-Riley & Kohlbacher, 2016) suggest that gender-specific marketing techniques are required for the effective promotion of green products. Their research on Japanese and British customers found that women are more likely to be affected by advertising that emphasizes social responsibility and community well-being, whereas males respond better to messages focusing on technological innovation and quality.

Recently, researchers have begun to investigate how gender norms and expectations influence green buying decisions in more complex ways. For example, (Brough et al., 2016) proposed the “Green-feminine Stereotype”, which says that men may avoid buying green products because they link eco-friendly behavior with femininity. This stereotype may discourage males from engaging in green consumerism unless the product or marketing effort emphasize masculine attributes. The researchers found that men are less inclined to buy eco-friendly products if they believe they contradict with their self-image. However, this barrier can be overcome by adopting “masculine” packaging and promoting green products as rugged or high-tech, which align more closely with traditional male identities (Brough et al., 2016).

2.3.3 Income and Green Buying Behavior

Income is another important demographic factor influencing green buying decisions. Consumers financial capacity has a direct impact on their ability to purchase eco-friendly items, which are often more expensive than conventional alternatives. According to research by (Moser, 2016), higher-income consumers are more likely to buy green products, as they can afford the higher prices and often perceive these products as superior in quality. Studies found that customers with higher disposable income are more willing to pay a premium price for green products, as they identify them with quality, health benefits, and environmental protection (Nguyen et al., 2018a). In contrast, lower-income consumers may prioritize affordability and convenience over sustainability; they mostly prefer conventional apparel over green ones, though they have a positive attitude towards environmental conservation. The researchers in their study found that income was found to be a strong predictor of green apparel buying behavior among Vietnamese consumers. The study found that high-income consumers are more inclined to perceive green products and align them with their values, whereas low-income consumers cited cost as the main barrier to buying eco-friendly items (Nguyen et al., 2018a).

In the study by (Diamantopoulos et al., 2003b), researchers suggest that income influences both the ability to purchase green products with a higher status, viewing them as symbols of ethical consumption and social responsibility. Income-related differences in green consumption vary among cultures. In developing countries, high-income consumers are more likely to prioritize green consumption as part of their lifestyle. Researchers investigated the effect of income on green consumption and found that high-income

consumers were skeptical of the authenticity of green product claims. This skepticism limited their eagerness to pay for environmentally friendly items, highlighting the need for transparent marketing and certification (Khan & Kirmani, 2015).

2.3.4 Education and Green Buying Behavior

Education is a significant predictor of green buying behavior, impacting customers' environmental knowledge, attitudes, and decision-making processes. Higher levels of education are often related to increased knowledge of environmental issues, a stronger sense of social responsibility, and a greater likelihood of adopting sustainable buying patterns (Luo & Deng, 2008). Consumers who are educated are more aware of the long-term benefits of green apparel, analyze eco-labels, and perceive sustainable choices as an essential part of their lifestyle. Educational attainment has a significant impact on Consumers awareness and understanding of environmental issues, impacting their green buying behavior. According to research, consumers with high education levels have greater knowledge of the environmental impact of their purchases and are more proactive in seeking out information about sustainable consumption (Kaufmann et al., 2012). Education improves Consumers critical thinking skills, allowing them to evaluate the credibility of green claims and differentiate between genuinely green products and greenwashing tactics. A study on consumers revealed that educated consumers are more knowledgeable about environmental issues and more likely to trust eco-labels. This improved environmental awareness leads to a higher likelihood of choosing green products, as educated consumers view these choices as a way to express their ethical and environmental beliefs (Kaufmann et al., 2012). Similarly, (Lin & Huang, 2012) investigated the impact of education on Consumers green buying behavior and discovered that those with college or higher-level education have stronger pro-environmental attitudes and a greater willingness to pay for green products. The researchers attribute these findings to education's role in increasing environmental literacy and promoting sustainable values.

Education has a significant impact on green buying behavior, including trust in green products and certifications. Educated consumers are more discerning, scrutinizing product labels, certifications, and environmental claims more closely. According to studies, consumers with greater levels of education are more inclined to believe third-party certifications and eco-labels because they have a deeper understanding of the standards and regulatory systems behind such labels (Aman, 2011). This trust leads to a greater possibility

of choosing certified green products. (Ayu et al., 2019) examined the impact of education on Consumers trust in green product labels and discovered that educated consumers were more likely to believe in the authenticity of eco-labels and certifications. The researchers suggest that education provides consumers with the cognitive tools needed to critically evaluate environmental claims and make informed purchasing decisions. (Taufique & Vaithianathan, 2018) expanded on this research by investigating the role of education in increasing eco-label literacy among Indian consumers. They discovered that customers with higher education levels were better able to interpret eco-labels and were less likely to be misled by greenwashing. This literacy, in turn, increased their trust in green product choices. Educational attainment not only influences green buying behavior, but also encourages more sustainable lifestyle choices. Consumers with higher levels of education are far more inclined to engage in a range of pro-environmental behaviors, including energy saving, waste reduction, and sustainable transportation. This relationship is attributed to education's role in fostering civic responsibility and a commitment to sustainability (Liere & Dunlap, 1980). The researchers (Liere & Dunlap, 1980) conducted one of the earliest studies linking education and environmental concern, discovering that higher education levels are associated with increased support for environmental policies and participation in conservation activities. The researchers argued that education fosters environmental ethics, making customers more likely to choose green products and sustainable practices. More recently, (J. Shen & Saijo, 2008) investigated the relationship between education and environmental concern among Chinese consumers and discovered that higher education levels are associated with a greater willingness to adopt sustainable lifestyles, such as using public transportation and reducing water consumption. According to the study, education not only raises environmental awareness but also fosters a long-term commitment to sustainability.

2.3.5 Integrated Impact of Demographics on Green Buying Behavior

While age, gender, income, and education all independently influence green buying decisions, their combined effect provides a more holistic understanding of consumer behavior. Recent research has emphasized the importance of examining the interaction effects of these demographic characteristics, as they frequently interact to shape Consumers green buying patterns in complex ways (Nguyen et al., 2018b). The interaction between age, gender, income, and education generates diverse consumer segments with distinct green buying behavior. For example, a high-income, educated woman is likely to approach

green consumption differently from a low-income, educated male or a younger, less-educated woman. These differences arise because demographic factors influence not just attitudes and knowledge, but also access to resources, motivations, and perceived barriers (Joshi & Rahman, 2015). In the study conducted by (Joshi & Rahman, 2015), the researchers did a meta-analysis of 53 studies on green buying behavior and discovered that demographic factors interact to produce various patterns of green buying. For example, high-income, well-educated men and women view green products as lifestyle choices that reflect their values and social status, whereas low-income consumers prioritize price and fundamental necessities. (Nguyen et al., 2018b) investigated the role of education and income in determining green buying intentions and found that education enhances the favorable influence of income on green buying behavior. That is, high-income consumers with lower education levels are not as interested in buying green products as high-income consumers who have higher education levels, implying that education increases the perceived value of sustainable buying. Hence, understanding how age, gender, income, and education affect green purchasing behavior is critical for establishing tailored measures to encourage sustainable consumption. Each of these aspects has a distinct effect in determining customers' attitudes, motivations, and behaviors, and their combined effect can provide deeper insights into consumer segmentation.

❖ **Discussion on the Moderating Role of Age in Green Apparel Buying Behavior**

Understanding how demographic variables influence green buying behavior is essential for segmenting consumers and designing targeted sustainability strategies. Among these variables, age plays a particularly significant role in shaping attitudes toward environmental issues and the resulting buying behaviors. The reviewed literature emphasizes that youth consumers, particularly Millennials and Generation Z, are generally more environmentally conscious, socially connected, and responsive to sustainability appeals in marketing (Bhalla et al., 2023; Liu et al., 2024c). They tend to associate green apparel with trendy, ethical, and identity-expressive choices, often influenced by peer behavior and social media platforms (Sobuj et al., 2021; Hwang & Kim, 2018). This group also shows greater sensitivity to environmental messages and eco-labels, thus exhibiting stronger intentions and behaviors toward green consumption.

In contrast, older consumers often exhibit green purchasing behaviors driven more by personal well-being and product quality than by environmental sustainability (D'Souza et al., 2007). Their motivations are often utilitarian, and they may be less influenced by green

marketing due to lower familiarity with environmental terminology and digital sources of information. Additionally, they may exhibit scepticism or a lack of trust in the authenticity of green claims or may not prioritize eco-friendly choices over cost and performance. Moreover, barriers and motivations differ across age cohorts. Younger consumers may be highly motivated but restricted by budgetary constraints, whereas older consumers may have the financial means but lack the awareness or environmental literacy to act accordingly (Hwang & Kim, 2018). This implies that age not only influences the strength of environmental concern but may also shape how this concern is translated into behavior, particularly green apparel buying.

These observations suggest that age may play a moderating role between environmental concern and green apparel buying behavior. While environmental concern generally leads to higher green apparel purchasing, the strength of this relationship may differ depending on the consumer's age. Younger consumers may exhibit a stronger alignment between their concern and action due to peer influence, identity signalling, and digital engagement. In contrast, older consumers may show a weaker connection, potentially due to a focus on traditional product attributes or low responsiveness to green appeals. Therefore, the role of age as a moderator is crucial for understanding the variability in green apparel purchasing across demographic segments. This relationship has practical implications for marketers, policymakers, and sustainability advocates, as it indicates that age-specific strategies may be necessary to strengthen the environmental concern–behavior link across generational lines.

- **Research Gap**

While extensive research has been conducted on the influence of environmental concern and other psychological and social factors on green apparel buying behavior, the moderating role of demographic variables, especially age, remains underexplored. Prior studies (e.g., Liu et al., 2024c; Sobuj et al., 2021) have shown that age independently affects green buying behavior, and others (e.g., Lin & Chen, 2022) have confirmed environmental concern as a significant predictor of sustainable apparel consumption. However, few empirical studies have specifically examined how age moderates the relationship between environmental concern and green apparel buying behavior.

Most existing models treat age as an independent variable or control variable, thereby overlooking its potential interactive effects. This creates a conceptual and empirical gap,

especially in developing economies like India, where generational differences in environmental awareness, lifestyle, and digital exposure are pronounced. Additionally, cross-sectional comparisons between age groups are rarely tested statistically through moderation analysis, which is essential to understand whether the strength or direction of the environmental concern–behavior relationship varies by age. Thus, this study seeks to fill this gap by investigating the moderating effect of age on the relationship between environmental concern and green apparel buying behavior. The findings are expected to contribute to both theoretical advancement in sustainable consumer behavior literature and practical segmentation strategies for green marketing in apparel.

Section 4: Contextual Review – Youth, Gender, and Region

This section provides context-specific insights on consumer behavior relevant to youth buying behavior, gender and region.

2.4.1 Youth Buying Behavior

Understanding what motivates youth consumption behavior is a crucial focus in consumer research, given the unique characteristics and significant purchasing power of this demographic. Youth consumers, typically defined as individuals between 15 and 29 years of age, are frequent early adopters of new ideas, influenced by a wide range of social, cultural, and psychological variables. Trends, peer influence, and media all have a significant impact on the attitudes, preferences, and purchasing decisions of young people. Trends influence young consumption by instilling a sense of community and identity among social groups. Youth customers are often attuned to the current fashion trends and are driven to conform to express their identity and achieve social acceptance. Recent research demonstrates that trends can strongly impact youth customers' perceptions of product value and desirability, often driving them to adopt specific brands or styles (Kim et al., 2018; Pentina et al., 2018). In the research (Pentina et al., 2018), it was found that youth are more inclined to engage in trend-driven consumption when they believe a product is popular among their peers. According to their findings, the desire to keep up with current fashion trends is closely tied to self-identity and social acceptance, making youth customers especially responsive to things that are considered stylish or "in style". (Kim et al., 2018) investigated how fashion trends influence the buying behavior of youth women. The study discovered that youth females are drawn to fast fashion brands due to their ability to quickly replicate emerging trends at affordable prices. This trend adoption behavior is often driven

by a desire to project a fashionable and socially desirable image, which is reinforced by the visibility of trends on social media platforms. Peer influence remains a significant driver of youth consumption. Young people often go to their peers for advice on what products to purchase and which brand to support. This is particularly evident in social contexts, where trends can spread rapidly through word-of-mouth or social media platforms. A study found that the digital world has made youngsters more susceptible to peer recommendations, as they frequently share and receive product information through social media (Global Youth Trends, 2024; Lixin, 2024).

The current generation of youth, often referred to as digital natives, is significantly influenced by media exposure. According to research, young consumers are adept at using social media to gather information about products, which influences their buying decisions (Lixin, 2024). For example, a larger proportion of youth report that they are influenced by advertising and endorsements from social media influencers. Furthermore, research has indicated that news consumption among youth consumers is influenced by their media environment, including access to various platforms and parental regulations (Klopfenstein et al., 2024). Young customers prefer local brands to foreign ones, displaying national pride and trust in domestic products. This tendency is backed by the abundance of information available online, which enables consumers to make informed judgements based on quality rather than brand origin. The shift to local companies reflects broader socioeconomic developments as youth navigate their identities in a globalized world (Lixin, 2024). Health consciousness is another important factor influencing youth consumption patterns. Millennials and Generation Z are increasingly prioritizing wellness-related products, including fitness apps, supplements, and sustainable food options. This trend is driven by a desire for overall well-being and reflects a broader societal shift towards health awareness. The rise in mental health issues among youth has also led to increased interest in products that support emotional well-being (Global Youth Trends, 2024).

The fashion industry has increasingly faced scrutiny for its environmental and social impact, resulting in a growing demand for sustainable practices and products. This shift has significantly influenced young Consumers perspectives, who are often at the forefront of social and environmental change. Environmental awareness is an important aspect in shaping young Consumers attitudes towards sustainable fashion. Many studies have found that youth are more environmentally conscious than previous generations and are increasingly prioritizing sustainability in their consumption decisions (Hill & Lee, 2012;

Mcneill & Moore, 2015a). In the study, (Hill & Lee, 2012) investigated the effect of environmental concern in shaping young Consumers fashion behavior. Their study found that youth with higher levels of environmental concern were more likely to seek out information about sustainable fashion and express positive attitudes towards brands with eco-friendly practices. However, these attitudes did not always turn into actual purchases due to perceived higher costs and limited availability of sustainable options. (Mcneill & Moore, 2015a) investigated the sustainability attitudes of young New Zealand consumers, discovering a high level of environmental knowledge. The researchers found that while youth were willing to support sustainable fashion, practical constraints such as price, style, and accessibility sometimes put them off. The study emphasizes the need for sustainable fashion brands to align their offerings with the aesthetic preferences and budgets of young consumers.

Young fashion consumers are increasingly concerned with ethical issues such as labor standards, animal welfare, and social justice. Young people are more likely to choose brands that align with their ethical values and avoid those associated with exploitative activities (Joung, 2014). This demographic often views fashion as a form of activism, using their purchasing power to support brands that promote social and environmental causes (Goworek et al., 2012). The researchers investigated the ethical attitudes of young UK fashion consumers and found that ethical considerations were a significant determinant of fashion choices. The study revealed that youth were more likely to engage with brands that demonstrated transparency in their supply chains and showed commitment to ethical standards. However, the researchers emphasized that the efficiency of ethical marketing was determined by the visibility of the brand's standards and the extent to which these practices were effectively communicated to young consumers (Goworek et al., 2012). A study (Joung, 2014) investigated the relationship between ethical consumption and sustainable fashion choices. Stated consumers who place a high value on ethical consumption are more likely to engage in sustainable fashion behavior, such as purchasing second-hand clothing or supporting brands that use fair trade practices.

However, while young consumers show a positive attitude towards sustainable fashion, there often remains a gap between their attitude and actual buying behavior, known as the "attitude-behavior gap" (Carrington et al., 2010). This gap is particularly evident in fashion, where young consumers may express a preference for sustainable products but continue to buy fast fashion due to factors such as cost, convenience, and peer influence. (Carrington

et al., 2010) investigated the factors that contribute to the attitude-behavior gap and discovered that while young consumers are motivated by environmental concerns, they are often constrained by situational factors such as budgetary limitations and the appeal of fast fashion's convenience. The authors suggest that brands need to address these barriers by making sustainable fashion more accessible and affordable. (Shen et al., 2012b) investigated Chinese youth's sustainable fashion choices and discovered that the gap between attitudes and behavior was influenced by a lack of trust in green claims, limited availability of sustainable trends, and peer pressure to conform to fast fashion trends. The researchers emphasized the need for sustainable fashion brands to build trust and providing products that fulfil the aesthetic and functional needs of young consumers.

Therefore, focusing on female youth is particularly important for studying green apparel buying behavior because this demographic is known for its increased interest in sustainability, fashion, and social responsibility. Youth females, particularly those in the millennial and Generation Z cohorts, are highly influenced by social media, peer pressure, and worldwide trends, making them key drivers of change in the fashion industry. (Mcneill & Moore, 2015) argued that younger consumers, particularly females, are more inclined to engage with brands that prioritize sustainability and ethical practices. They are also more inclined to prefer eco-friendly products over traditional ones due to their increased awareness of environmental issues. This demographic has enormous influence since their shopping habits shape broader consumer trends. Furthermore, (S. K. Jain & Kaur, 2004) found that females, particularly those in younger age groups, are more likely to engage in socially responsible consumption behaviors. They are more inclined to seek out the brands that share their ethical values, making them a critical group to study in the context of green apparel.

Moreover, environmental concern, social media influence, and personal values are the main motivational factors that shape female youth's green apparel buying behavior. Their rising knowledge of fashion's environmental impact. Social platforms are normalizing sustainable buying, building a strong desire to align their choices with personal beliefs, and all contribute to an increase in demand for sustainable fashion options. However, practical barriers such as price and availability continue to hinder wider adoption, emphasizing the importance of fashion brands to align their sustainable offers with the interests and budgets of young female consumers. Understanding these motives is crucial for developing

effective marketing strategies and supporting environmentally friendly fashion practices among this influential demographic.

2.4.2 Gender Specific Studies on Consumer Behavior

The global rise in environmental consciousness has led to an increased interest in understanding female Consumers green buying behavior. Studies indicated that females are more likely to prefer sustainable products than males, which is often driven by a stronger feeling of environmental responsibility, social awareness, and health concerns (Nguyen et al., 2018b). Many studies have found that women exhibit greater concern about environmental issues and are more likely to transfer these concerns into actual purchasing behavior than men. (Henninger et al., 2016b) investigated the impact of environmental concerns on women's sustainable choices. The study found that women who are truly worried about the environment are more likely to seek out sustainable fashion businesses and are willing to pay a higher price for eco-friendly items. The study emphasized that this concern is not limited to apparel but also includes cosmetics and household items. A study by (Dewi & Syauki, 2023) examined female Consumers green awareness regarding eco-friendly products. The findings suggested that female consumers are more concerned about environmental issues, with a considerable interest in green products across various categories, including food, fashion, and household items. The research by (Zhao et al., 2021) highlighted that women seem to have a more positive attitude towards green consumption than men. The findings stated that women are more likely to buy green products and engage in pro-environmental behaviors. The research also analyzed difficulties faced by both genders while participating in green consumption and provided marketing suggestions tailored to address these differences. (Maciej Serda et al., 2013) focused on women customers' attitude towards green marketing, found a significant relationship between age, education level, and preferences for sustainable products.

The study found that consumers, particularly women, become more aware of environmental issues, and they have a greater preference for organic and eco-friendly products. This trend provides opportunities for brands to attract environmentally conscious female consumers. An investigation into the factors affecting female Consumers desire to purchase green products found that attitude towards sustainability, perceived behavioral control, and subjective norms have a significant impact on their buying decisions. Research shows that increasing knowledge and resolving misconceptions about green products could improve

buying rates among women (Mobrezi & Khoshtinat, 2016). A broader analysis revealed that younger female consumers (Millennials and Generation Z) are particularly motivated by environmental concern. They prefer brands that emphasizes both environmental responsibilities and ethical practices. The growing trend towards health-conscious and sustainable living is reshaping their shopping patterns, with many willing to pay a premium price for products that align with their values.

Research has consistently highlighted significant differences between male and female consumers green buying behavior. These differences are influenced by various factors such as environmental concern, social standards, and risk perceptions. Interestingly, while females show stronger intentions to buy green products, men frequently have higher levels of environmental awareness. According to research, men are more concerned about environmental issues in specific regions, which may influence their shopping behavior (Zhao et al., 2021). Furthermore, a study discovered that women are frequently less risk-averse and more educated about green items than men, resulting in a higher consistency between their ideals and actual shopping behavior (Essiz et al., 2023). This shows that while women may prioritize suitability in their buying decisions, men's expertise may drive them to evaluate the practical implications of their purchases more thoroughly. Gender influences the "green gap", the difference between consumers expressed environmental values and their actual buying behavior. Females tend to overcome this gap more efficiently than males because they have lower risk aversion and better subjective knowledge about green products (Essiz et al., 2023). This gap emphasizes the difficulties both genders face in translating their environmental concern into consistent buying decisions.

According to research, parenthood influences green buying behavior differently for men and women. Mothers are often observed to be more willing to make sustainable decisions compared to fathers. This is probably because mothers prioritize providing a sustainable environment to their children. However, the presence of children can also complicate buying decisions. Financial constraints may limit the ability of both genders to buy green products (Migheli, 2021). Cultural contexts have a significant impact on gender differences in green consumption. For example, studies conducted in various countries have shown that while females tend to have greener behavior, these tendencies might vary depending on local cultural attitudes regarding gender roles and environmental responsibility (Dewi & Syauki, 2023; Fan & Joffre, 2020). In some regions, the expected social roles may reduce gender inequalities in green buying behavior.

Research focusing on female youth in India reveals a growing awareness and interest in sustainable products, although challenges remain. A study by (V & Babu, 2020) investigated female consumers attitudes towards green marketing in India. The research discovered that while awareness of green products such as organic food is relatively low, there is a notable shift in mindset among females, who are increasingly preferring eco-friendly options. The study highlighted that factors such as age, educational qualification, and employment status all have a significant impact on their preferences and satisfaction levels regarding green products. Despite low public awareness about global environmental challenges, female growing consciousness presents opportunities for firms targeting this group to promote sustainable practices effectively. Therefore, female youth in India are increasingly recognizing the importance of green products, driven by changing attitudes towards environmental issues and influenced by social dynamics. However, barriers such as limited awareness and cultural factors still pose challenges to widespread adoption. Targeted educational initiatives and the use of social media can enhance understanding and acceptance of green products among this demographic, paving the way for more sustainable consumer behavior in the future (Dewi & Syauki, 2023; Fan & Joffre, 2020).

2.4.3 Regional Context – Uttar Pradesh

Uttar Pradesh (UP), located in northern India, is the country's most populous state and an important region for understanding consumer behavior due to its diverse demographic profile, economic differences, and rich cultural heritage. With over 200 million people, Uttar Pradesh accounts for approximately 16.5% of India's total population (Census of India, 2011b). The state's unique regional context, including its complex socioeconomic environment, rural-urban divide, and cultural traditions, plays an important part in shaping the actions of its residents, with their consumption patterns. Uttar Pradesh's population is highly diverse in terms of age, gender, and educational attainment. According to the latest Census data, the youth population (15-29 years) comprises approximately 27% of the total population, making young people a significant demographic group in the state (Census of India, 2011a). This youthful demographic provides an important lens for analyzing emerging consumer trends and the adoption of new consumption patterns, such as sustainable and green products. The gender ratio in Uttar Pradesh remains skewed, with 912 females for every 1,000 males, reflecting broader gender disparities in terms of access to resources and opportunities (Registrar General & Census Commissioner, 2011). Such gender disparities can influence buying decisions and the degree to which females engage

in new consumer trends. Uttar Pradesh has a literacy rate of 67.7%, which is lower than the national average of 74%, indicating educational differences that may have an impact on awareness and adoption of sustainable products (Census of India, 2011b). Urban areas have much higher literacy rates than rural regions, contributing to differences in consumer behavior across the state.

Uttar Pradesh has strong economic disparities, with significant differences in income, employment, and standards of living between urban and rural areas. According to the (Reserve Bank of India, 2020), the state's per capita income is significantly lower than the national average, highlighting the economic challenges faced by its residents. The state's economy is primarily agricultural, with around 60% of the people employed in agriculture and related activities (Planning Commission Report, 2013). This rural economic dependence reduces disposable income and purchasing power, making it difficult for rural consumers to adopt premium-priced green products. The urban-rural gap has a significant impact on green buying behavior in Uttar Pradesh. Urban consumers have better access to knowledge about sustainable products and are more aware of global fashion trends that promote eco-friendliness. Rural consumers, on the other hand, frequently lack access to different options and may prioritize short-term economic concerns about long-term sustainability. According to research, urban youth are more likely to engage in sustainable fashion initiatives through social media platforms, which serve as channels for information dissemination and community engagement. Cultural factors also influence green apparel buying behavior in Uttar Pradesh. Traditional values and societal standards can either encourage or discourage sustainable consumption habits. In many cases, women are viewed as the key decision-makers for household purchases, which can lead to a higher emphasis on environmentally friendly options when they become available. However, cultural influences might lead to conformity with traditional buying behavior if sustainable options are perceived as niche or elitist. (Kaushal et al., 2021) found that environmental awareness plays an important role in influencing green buying behavior among consumers in Uttar Pradesh. The researchers discovered that attitude towards sustainability, subjective norms, and perceived behavioral control all have a significant impact on buying intentions for eco-friendly products. Highlighting the fact that these factors and actual purchasing behavior are positively associated, suggesting that raising environmental awareness can increase the likelihood of consumers opting for green apparel.

Therefore, the regional context of Uttar Pradesh has a significant impact on consumer behavior, particularly in terms of sustainable and green products. The state's diverse demographic profile, economic disparities, and deeply ingrained cultural norms contribute to a complex consuming environment. While urban youth are more receptive to green products due to higher income, education, and exposure to global trends, rural consumers are more conservative, focusing on cost and functionality. Effective strategies for promoting sustainable consumption in Uttar Pradesh must consider these regional differences, leveraging cultural values and boosting accessibility to bridge the rural-urban gap.

Section 5: Research Gap and Conceptual Framework

This section highlights the research gaps and introduces the study's research model.

2.5.1 Research Gap

In recent years, the significance of sustainable consumption and eco-friendly apparel choices has received growing attention from researchers and marketers, and green apparel buying behavior has emerged as a critical area of academic and industry interest (Dhir et al., 2021a; Connell, 2010b; Rūtelionė & Bhutto, 2024b). While multiple studies have explored green buying behavior across different demographics and geographies (Lin & Chen, 2022; Solaiman & Rana, 2023; Balasubramanian & Sheykhmaleki, 2024), several critical gaps remain, particularly in understanding the green apparel buying behavior of youth females in the Indian context, especially in Tier-II cities of Uttar Pradesh.

Firstly, physical product attributes—including fabric quality, durability, style, and eco-labels—have been shown to influence sustainable purchase decisions (Farzin et al., 2023; Liu et al., 2024b). Yet, limited studies have explored how these tangible features shape consumer attitudes, and in turn, how attitude impacts green apparel buying behavior, especially in developing economies (Khare, 2023c; Farzin et al., 2023). Thus, there is a need to investigate how product-level attributes interact with psychological constructs like attitude to drive sustainable fashion choices among youth female consumers.

Secondly, research on psychographic drivers such as fashion consciousness, variety-seeking behavior, and consumer innovativeness remains fragmented in the context of green apparel. Although these variables have been studied independently (Shokeen et al., 2022a; Do & Do, 2024), their indirect impact on green apparel buying behavior through

environmental concern remains underexplored. While environmental concern is a key driver of sustainable consumption (Solaiman & Rana, 2023; Rasheed et al., 2024), its mediating role in linking psychographic traits to green apparel behavior has not been thoroughly examined, especially among environmentally aware yet fashion-conscious Indian youth.

Thirdly, demographic variables such as age, gender, income, and education have been acknowledged as key moderators in shaping green buying decisions (Nguyen et al., 2018a; Sudbury-Riley & Kohlbacher, 2016). However, the moderating effect of age on the relationship between environmental concern and green apparel buying behavior has not been sufficiently studied in the Indian context. Research shows that Generation Z and younger consumers are more inclined toward sustainable fashion due to heightened environmental awareness and peer influence (Liu et al., 2024c; Bhalla et al., 2023), but age-wise segmentation within youth consumers (e.g., ages 15–19 vs. 20–25) remains largely unexplored in Tier-II cities.

Furthermore, most previous studies have been conducted in developed countries or urban centers, with limited research focusing on Tier-II cities of India, where youth females are increasingly exposed to sustainability narratives through education, media, and changing consumer lifestyles (Taufique & Vaithianathan, 2018; Khare, 2023c). This segment offers a unique blend of environmental awareness, fashion consciousness, and evolving consumption patterns—yet remains largely unexplored in empirical academic literature.

Therefore, this study aims to address the following key research gaps:

- The limited understanding of the relationship between physical product attributes and consumer attitude, and their combined influence on green apparel buying behavior.
- The lack of empirical evidence on the indirect effect of fashion consciousness, variety-seeking behavior, and consumer innovativeness on green apparel buying behavior, mediated by environmental concern.
- The underexplored moderating effect of age in the relationship between environmental concern and green apparel buying behavior, especially among youth females in Tier-II cities of Uttar Pradesh.

By addressing these gaps, this study aims to contribute meaningful insights into sustainable consumer behavior in a demographically significant and contextually under-researched segment in India.

2.5.2 Research Model

On the basis of the literature and the above-mentioned a research gap, this section presents research model of Green Apparel Buying Behavior with its antecedents.

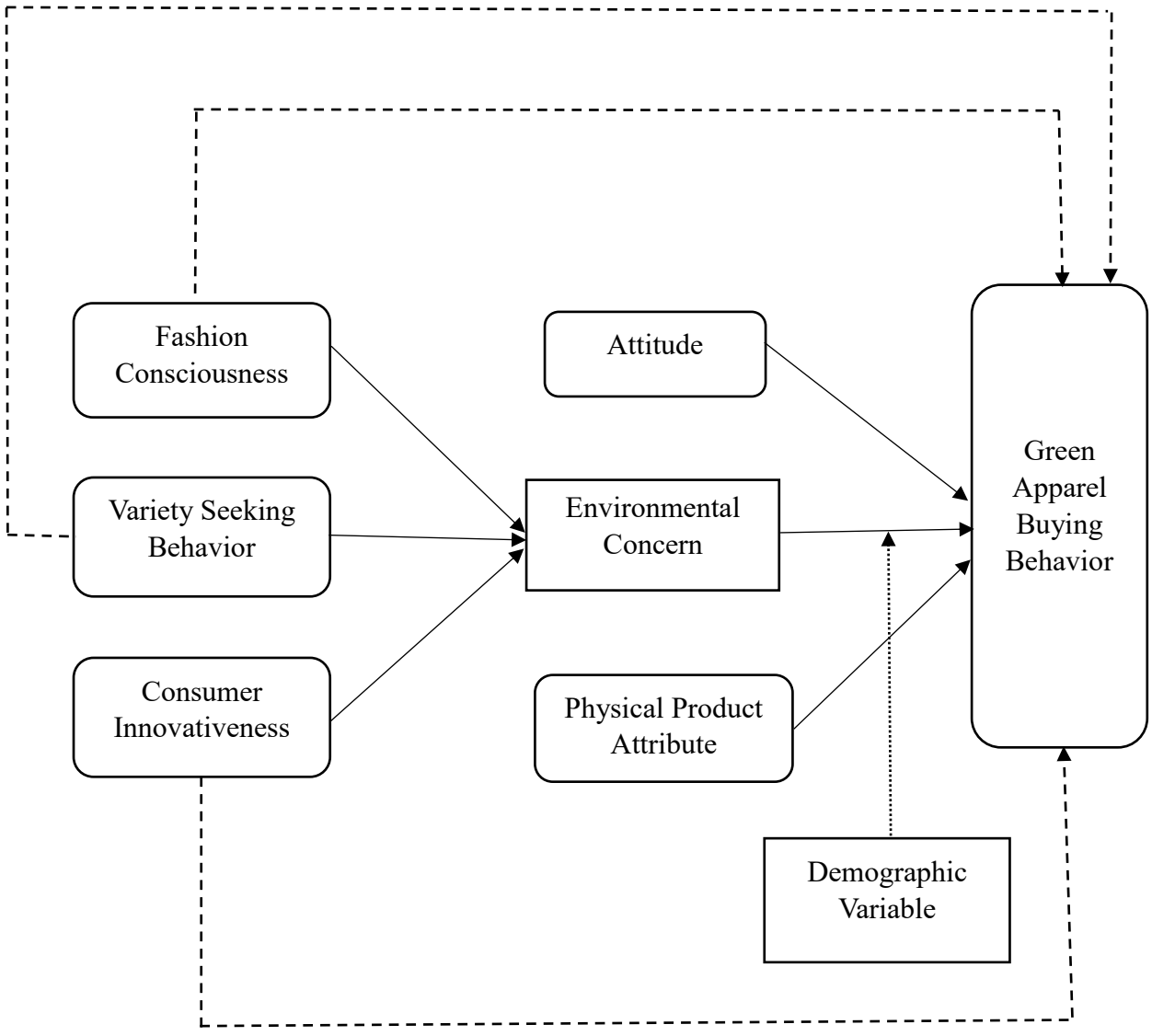


Figure 2.1: Research Model of Green Apparel Buying Behavior

Independent Variables: Fashion Consciousness, Consumer Innovativeness, Variety Seeking Behavior, Attitude, Physical Product Attributes

Dependent Variable: Green Apparel Buying Behavior

Mediating Variable: Environmental Concern

Moderating Variable: Demographic Variable

2.6 Summary

To conclude, the literature on Green Apparel Buying Behavior and its antecedents shows that consumers are seeing the value of adding green products in their consumption habits. The studies reviewed highlight the benefits of green apparel buying behavior for both consumers and the environment. However, consumers are not much aware of green apparel buying behavior. From the extensive literature review, a research gap was explored in the chapter. This review points out the need for more research in these areas and sets the foundation for the next chapters of the thesis, which will explore these issues further and suggest new directions for research on green apparel buying behavior.

CHAPTER – 3

RESEARCH METHODOLOGY

Research methodology is the layout of how the research is carried out. It defines the techniques or procedures that are used to identify and analyze the information regarding a specific research topic. This chapter explains the methodology and framework adopted for carrying out this research. The chapter starts with problem identification, followed by the need of the study, research objectives, and scope of the study. The research design explains the important variables used for the study, along with the methodology applied for sampling. Further, the development of the questionnaire, data collection, and pilot study has been elaborated. At last, SEM models based on respondents' responses have been described.

3.1 Problem Identification

The apparel industry is one of the most significant contributors to environmental degradation. The production process includes extensive water consumption, chemical pollution and the use of non-biodegradable materials, all of which are causing serious environmental impacts. As consumers are becoming more conscious of these issues, there is a great demand for environmentally friendly clothes, known as "Green Apparel". However, the adoption of such clothes among consumers, particularly youth females in India is still being explored (Sneha & Sudha, 2022)

In Uttar Pradesh, a state with diverse cultural influences and economic situations, youth females purchasing behavior of female youth for green clothes is influenced by several factors, including socioeconomic level, education, and cultural perceptions of sustainability. Despite increased knowledge of environmental issues, there is still minimal scientific research on the specific motives and barriers that this population faces when purchasing green apparel. Previous research shows that, while many consumers express a desire for sustainable clothes, actual purchase behavior frequently does not coincide with these intentions due to factors such as increased costs, restricted availability, and lack of information (Sneha & Sudha, 2022; Singh & Pathak, 2021).

The literature review contributed to gaining insight and clarity on the research issue. A research problem is said to be rewarding when there is a gap between the actual and desired outcomes. The literature provided considerable evidence of green apparel buying behavior

for fashion consciousness, variety seeking behavior, consumer innovativeness, Physical product attributes, attitude toward green apparel, environmental concern attributes, and on the decision of the consumers residing in Tier-II cities of Uttar Pradesh to buy green apparel. The literature review suggested that little work has been done in India on this issue. This motivated the current research study which aims to help fashion apparel brand marketers to understand the effect of the awareness and consumption of green apparel, to develop a positive attitude towards green apparel to study the factors that influence buying behavior, to develop favorable attributes of green apparel that have an effect on the buying decision of the consumer of green apparel in Tier-II cities of Uttar Pradesh.

Awareness and consumption of green apparel resulting from self-care and concern for the environment were observed to vary in the decision to purchase green apparel. The most significant variables included environmental concern, followed by sustainable commitment, indicating that men were ecologically conscious, committed, and concerned (D'Souza et al., 2015a). Consumer attitudes and behaviors were found to be the most constant predictors of willingness to pay for green products (Biswas & Roy, 2016).

The primary objective of this research is to empirically analyze the buying behavior of youth females towards green apparel in Tier-II cities of Uttar Pradesh, by focusing on their awareness, perceptions, attitude, motivations, and barriers. This study intends to give helpful information for marketers, politicians, and educators on how to effectively promote sustainable fashion among young consumers. By addressing these concerns, the study will contribute to the broader understanding of consumer behavior in the context of sustainable fashion, particularly in a region where traditional customs and modern consumerism intersect.

3.2 Need of the Study

With growing worldwide concern about environmental degradation and climate change, there is an urgent need to better understand consumer behavior with respect to sustainable practices. The garment sector contributes heavily to pollution and waste, thus it's critical to investigate how consumers, particularly youth females, react to green apparel options. According to research, while environmental awareness is increasing, it does not always convert into purchasing behavior, exposing a key gap in understanding the motives and challenges driving green clothes purchases among this demographic (Dhir et al., 2021; Khan et al., 2023).

Youth females represent the largest consumer group in the apparel sector. Their shopping decisions are frequently impacted by societal trends, peer pressure, and personal values. Understanding their purchasing habits for green garments is critical for marketers and legislators seeking to promote sustainable fashion. The preferences and attitudes of this generation can provide insights into future trends in consumer behavior and sustainable practices in the clothing sector (Liu et al., 2024).

Uttar Pradesh, as one of the most populous states in India, has a distinct cultural and economic background that influences consumer behavior. The region's different socioeconomic conditions, as well as varying levels of sustainability education and awareness, demand a targeted study into how these aspects influence green apparel purchasing behavior. This study will address the gap in the literature related to this geographic area, offering localized insights that can inspire focused marketing strategies and educational activities (Dhir et al., 2021; Sneha & Sudha, 2022).

The study contributes to the existing body of knowledge about consumer behavior in the context of sustainable fashion. By focusing on a specific population of youth females in Uttar Pradesh, it provides empirical data that helps us better understand the factors that influence green apparel purchase decisions. The findings can serve as the basis for future studies in this field, addressing the highlighted gaps in the literature about green consumerism in emerging markets (Dhir et al., 2021).

This study intends to encourage more sustainable consumption patterns among youth females by emphasizing the importance of green clothes and the factors that influence their buying. As this demographic becomes more aware of their environmental impact, promoting green garments has the potential to alter consumer behavior in favor of sustainability in the fashion industry. This is consistent with global efforts to reduce the ecological footprint of the apparel industry and encourage ethical purchasing (Dhir, Sadiq, et al., 2021a; Sneha & Sudha, 2022; Liu et al., 2024a).

3.3 Objectives of the Study

The key research objectives of the present study are:

1. To investigate the relationship between physical product attributes and attitude on green apparel buying behavior.

2. To examine the direct and indirect impact of fashion consciousness, variety seeking behavior and consumer innovativeness through environmental concern on green apparel buying behavior among youth females.
3. To investigate the moderating effect of demographic variable (age) between environmental concern and green apparel buying behavior.

3.4 Scope of the Study

The study focuses on Uttar Pradesh, one of India's most populous states. This region has a distinct cultural and socioeconomic background that shapes consumer behavior. By focusing on one area, the researchers aim to gather localized insights that may differ from findings in other regions of India or around the world. The primary demographic of interest is youth females, defined as individuals aged between 15 to 29 years. This demographic is important because they frequently determine fashion trends and are becoming more aware of environmental issues. Understanding their buying patterns can help forecast future trends in sustainable fashion consumption. The study will explore various factors that may influence the green apparel buying behavior of youth females, including fashion consciousness, variety seeking behavior, consumer innovativeness, attitude, and environmental concern. The findings of this study will contribute to the existing literature on green consumer behavior, particularly in emerging economies like India. It aims to fill the gap between consumer intentions and actual purchase behavior, which is frequently marked by a high intention-behavior gap. The study will provide marketers, retailers, and policymakers with actionable insights to effectively promote green apparel among youth females. Understanding the motives and constraints faced by such individuals allows stakeholders to develop targeted initiatives to increase the adoption of sustainable fashion techniques. The scope of this study is comprehensive, addressing various factors impacting green apparel purchasing behavior among youth females in Uttar Pradesh. It intends to provide useful insights that will inform both academic research and practical implementations in the field of sustainable fashion.

3.5 Research Model

On the basis of the literature and the above-mentioned research gap, this section presents a research model (conceptual framework) of Green Apparel Buying Behavior with its antecedents.

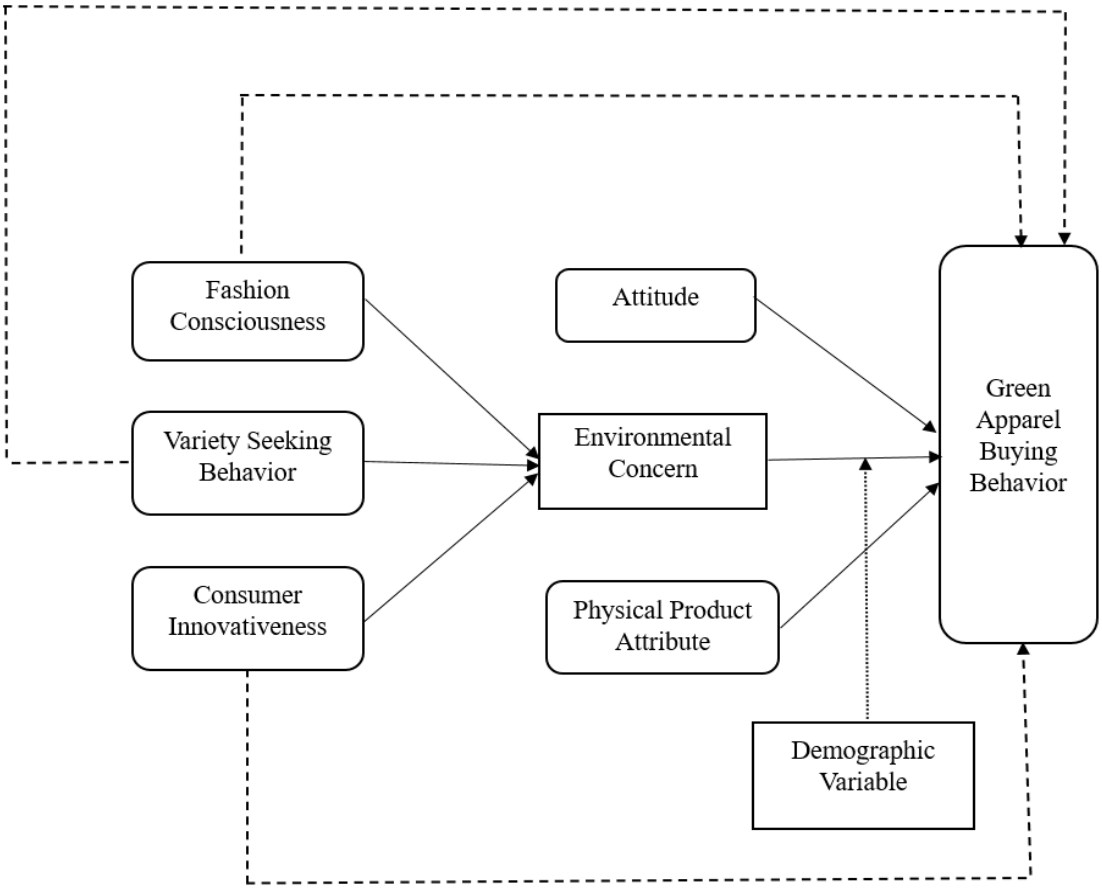


Figure 3.1: Research Model of Green Apparel Buying Behavior

Independent Variables: Fashion Consciousness, Consumer Innovativeness, Variety Seeking Behavior, Attitude, Physical Product Attributes

Dependent Variable: Green Apparel Buying Behavior

Mediating Variable: Environmental Concern

Moderating Variable: Demographic Variable

3.6 Research Design

Research design is a framework of methodologies and techniques adopted by a researcher to efficiently address the research problem. It offers insights on "how" to do research using a particular method. Every researcher has a list of research questions that must be evaluated; this can be accomplished through research design. A sketch of how research should be conducted can be created using research design (Khanday & Khanam, 2023). The plan represents the overall layout or program of study. It is the program that guides the

investigator through the process of collecting, analyzing, and interpreting observations. It outlines a systematic approach for the research to follow. There are three types of research design: Exploratory research design, Descriptive research design and Causal research design (Experimental).

A descriptive design has been proposed for this study. A descriptive study is defined as "the research is concerned with finding out what, where, or how much" (Cooper and Schindler, 2003). This research design is related to the specification of the problem and its solution in a more detailed and meaningful way. It aims to obtain information to systematically define a problem, situation or phenomenon. Specifically, the descriptive research design helps in answering six W's: who, what, when, where, why and way of the research.

Who – Who should be considered for this research? – This study is related to the green apparel buying behavior among Youth Females, so youth females who purchase green apparel are considered for this research.

What – What information should be obtained from the respondents? – Respondent's demographics, items related to the constructs in the context of the title and research objectives are collected from the respondents.

When – When should the information to be obtained? – The responses collected from the respondents as per their convenience in the year 2024.

Where – Where should the respondents be contacted to collect the required information? – The study was conducted in Tier-II cities – Meerut, Ghaziabad, Aligarh, Agra, Bareilly, Lucknow, Kanpur, Allahabad, Gorakhpur, and Varanasi of Uttar Pradesh. The sample is collected from the stores that have availability of green apparel in these cities.

Why – Why is the information being collected from the sample? – It provides valuable insights that will inform marketers, policymakers, and educators about how to effectively promote sustainable fashion among youth.

Way – In which way is the information to be collected? – A structured questionnaire is used to collect the information.

Thus, this study adopts a quantitative, cross-sectional, and descriptive research design to investigate the green apparel buying behavior among youth females in Uttar Pradesh. A survey method was employed to collect primary data through a structured questionnaire.

This design is suitable for examining relationships between variables such as physical product attributes, attitudes, environmental concern, and demographic factors. The study aims to measure behavioral tendencies at a specific point in time and derive generalizable findings.

3.7 Sampling Designing Process

Sampling design is a key component of conducting high-quality research. It is the process of selecting the sample for estimating the population characteristics. The steps involved in sampling design include defining the population, determining the sample size, selecting the sampling technique, creating the sampling frame, collecting the data, and analyzing the data.

Sampling design process involves five steps:

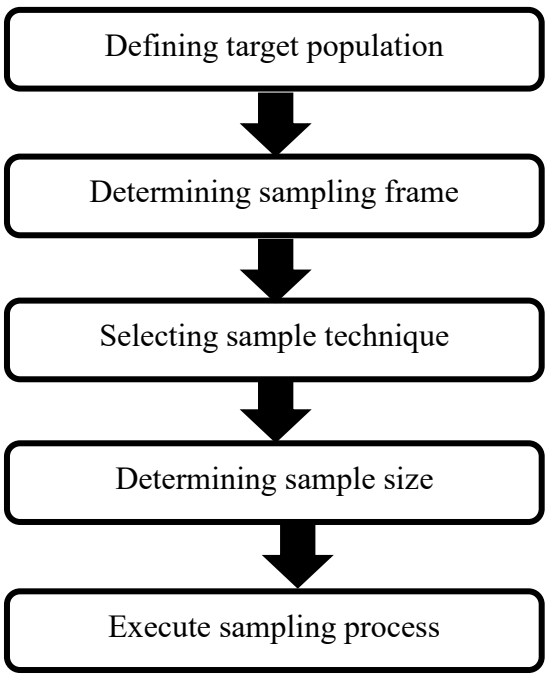


Figure 3.2: Sampling Design Process

The description of the sampling design process is as follows:

3.7.1 Target Population

The target population is referred to as "the entire group about which information is desired and a conclusion is made". Female shoppers of UP will be considered as the target

population for the present study. The studies laid emphasis on females as they are more fashion-prone than men.

3.7.2 Sampling Frame

Sampling frame, also known as "Sample frame" or "Survey frame", is the actual collection of units. It is the researcher's list for identifying the population of interest. It is a collection of components that a researcher can apply to draw a sample from the population. Since the objectives of the research are to understand youth females green apparel buying behavior, for the sampling frame, Tier-II cities of Uttar Pradesh were taken into consideration. The comprehensive list of Tier-II cities was taken into consideration from government sources to select the cities. From the list of cities, ten cities were selected representing Tier-II cities in different geographical locations (*Maps of India*, 2019). The names of ten Tier-II cities are Meerut, Ghaziabad, Aligarh, Agra, Bareilly, Lucknow, Kanpur, Allahabad, Gorakhpur, and Varanasi. The selection of Tier-II cities is based on geographical location. The selection of ten Tier-II cities in Uttar Pradesh was guided by their strategic importance in terms of urban consumer behavior, market growth potential, and socio-economic diversity. Tier-II cities represent a rapidly growing segment of urban India, marked by increasing disposable incomes, exposure to digital and social media, and evolving fashion consciousness among youth (KPMG, 2021). These cities offer a representative landscape of emerging consumption patterns, particularly in the context of green and sustainable apparel, which is central to the objectives of the present research. Moreover, Tier-II cities in Uttar Pradesh—such as Meerut, Gorakhpur, Moradabad, Bareilly, Aligarh, Agra, Gorakhpur, Allahabad (Prayagraj), Lucknow and Kanpur—are undergoing rapid urbanization and are targeted by retail and apparel brands for expansion due to growing aspirational consumer segments (EY India, 2020). These cities exhibit a blend of traditional values and modern consumer outlooks, making them ideal for analyzing green apparel buying behavior among youth females. Further, the stores are selected on the basis of the availability of green apparel.

3.7.3 Sample Unit

The sampling unit for this research will be youth female shoppers. The sample will be comprised of youth female shoppers of the age group 15-29 years (*Youth_in_India_2022*, 2022).

3.7.4 Sample Size Determination

Sample size is the number of observations or individuals included in a research study to represent a population. Choosing an appropriate sample size is important for accurate study findings that directly relate to population values. It is essential to determine the sample size correctly. An optimum sample size achieves the required levels of flexibility, reliability, representativeness and efficiency.

According to the census 2011, the total population of Uttar Pradesh = 199,812,341

Male population = 104,480,510

Female population = 95,331,831

The sample size was determined using a standard formula for a finite population, based on the principles of proportion estimation in statistics.

Formula for calculating sample size:-

$$n = Z^2 * (p) * \frac{1-p}{e^2}$$

Where:

n = required sample size (before adjustment)

Z = Z-value for a 95% confidence level = 1.96

p = estimated population proportion = 0.5 (for maximum variability)

e = margin of error = 0.05

$$n = (1.96)^2 * (0.5) * \frac{1-0.5}{(0.05)^2}$$

$$n = 384.16$$

Given the large size of the target population (N = 95,331,831), the sample size is further adjusted using the finite population correction (FPC) formula:

$$nadjusted = \frac{n}{1 + (n - \frac{1}{N})}$$

$$nadjusted = \frac{384.16}{1 + (384.16 - \frac{1}{95{,}331{,}831})}$$

$$nadjusted \approx 384$$

Since the population size is very large (over 95 million), the finite population correction has minimal effect. However, to enhance the reliability and robustness of the statistical analysis and to account for non-response and sampling error, the final sample size was increased to 500 respondents, which is acceptable and exceeds the threshold recommended by (Krejcie & Morgan, 1970) for large populations and conforms to accepted norms in social science research. Also, as per (Sarstedt et al., 2021), about 200-500 respondents are sufficient to represent the entire population in management studies. Malhotra suggests that a minimum sample of 200 respondents is often necessary for studies aimed at addressing significant problems effectively (Malhotra & David, 2007; Malhotra, 2004). Thus, for the present study, a sample of 500 respondents has been collected from the ten Tier-II cities of Uttar Pradesh, and a sample of 50 respondents has been selected from each city for data collection. Hence, the proposed sample size of the study is 500.

3.7.5 Sampling Technique

The multistage sampling technique has been used for the data collection. The selection of Tier-II cities has been done on the basis of different geographical locations. The stores have been selected on the basis of the availability of green apparel. The youth female shoppers have been selected on the basis of purposive sampling, also known as judgement, subjective or selective sampling (Mohammad et al., 2020). This sampling technique depends on researchers' personal judgment when selecting respondents from the given population for the study. The respondents have been randomly contacted while they visited the mall for shopping. They were asked if they were familiar with "green apparel," and only those respondents who were aware of green apparel and bought green apparel were requested to help in the research (Khare & Kautish, 2022).

3.7.6 Execution of Sampling Process

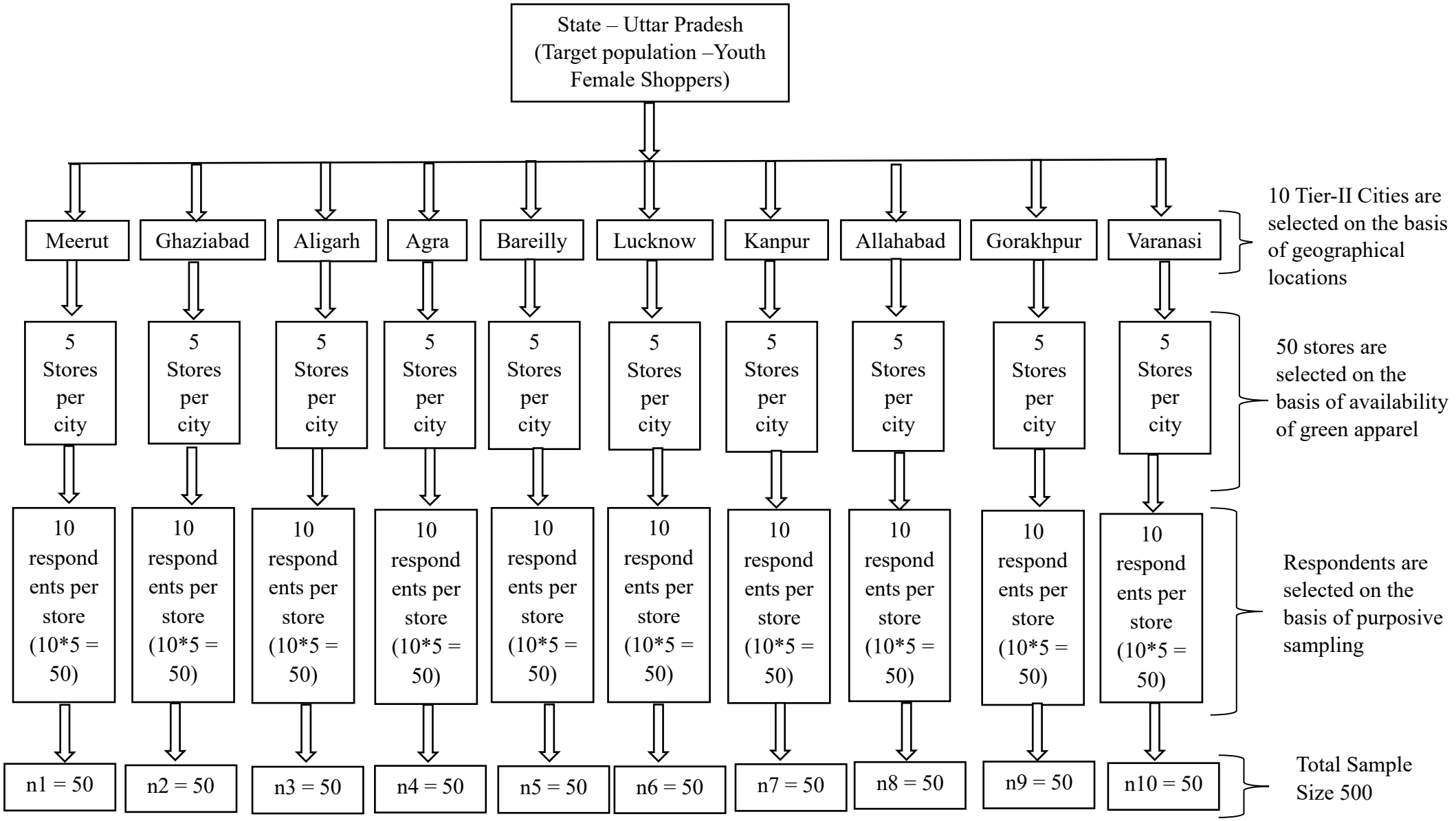


Figure 3.3: Execution of the Sampling Process

The execution of the sampling process is based on the various steps involved in the sampling design process in relation to the target population, sampling frame, sampling technique and sample size. The data is collected from January 2024 to June 2024 by using a self-administered questionnaire.

3.7.7 Demographic Profile of Respondents

Table 3.1 represents the demographic profile of the respondents. The percentage of respondents taken from the Ten Tier-II cities of Uttar Pradesh has been described below. Each of the cities had an equal number of respondents that formed the total sample. Thus, out of the total sample size of 500 respondents, 50 respondents were taken from each of the selected Tier-II cities.

Table 3.1: Demographic Profile of Respondents

Demographic	Statement	Frequency	Percentage (%)
Age	15 – 19	133	26.6
	20 – 24	177	35.4
	25 – 29	190	38
Marital Status	Married	164	32.8
	Unmarried	336	67.2
Occupation	Student	226	45.2
	Private job	145	29
	Government Job	30	6
	Self Employed/Business	99	19.8
Education Qualification	10^{th}	64	12.8
	12^{th}	102	20.4
	Under Graduate	124	24.8
	Post Graduate	127	25.4
	Doctorate	33	6.6
	Other	50	10

Locations	Meerut	50	10
	Ghaziabad	50	10
	Aligarh	50	10
	Agra	50	10
	Bareilly	50	10
	Lucknow	50	10
	Kanpur	50	10
	Allahabad	50	10
	Gorakhpur	50	10
	Varanasi	50	10
Monthly Income (INR)	<20,000	152	30.4
	20,001 – 40,000	133	26.6
	40,001 – 60,000	109	21.8
	60,001 – 80,000	60	12
	>80,001	46	9.2
Please specify the duration of usage of the Green Apparel	0 – 6 months	98	19.6
	6 months – 1 year	140	28
	1 year – 2 years	101	20.2
	2 years and above	161	32.2

3.7.7.1 Age

Table 3.1 presents the demographic characteristics of the respondents' age in the selected Tier-II cities. All the respondents were above 15 years of age. The respondents were further categorized into three age subgroups. These groups were 15-19 years, 20-24 years, and 25-29 years. In the age group 15-19 years, 133 respondents, forming 26.6%, purchased green apparel. In the age group 20-24 years, 177 respondents, forming 35.4%, buy green apparel. In the age group 25-29 years, 190 respondents, forming 38%, buy green apparel from the Tier-II cities of Uttar Pradesh. Hence, the maximum percentage of respondents was from the age group 25-29 years, i.e. 38%,

followed by 35.4% in the age group 20-24 years, and 26.6% in the age group 15-19 years.

3.7.7.2 Marital Status

Distribution of respondents as per marital status is given in Table 3.1. The number and percentage of respondents based on their marital status in the Tier-II cities have been discussed. The below figure shows that 336 respondents were unmarried, forming 67.2% of the sample, and 164 respondents were married, forming 32.8% of the sample from the Tier-II cities.

3.7.7.3 Occupation

Occupation of respondents has been shown in Table 3.1. Out of 500 respondents, 226 respondents were students, forming 45.2%, 145 respondents were doing private jobs, forming 29%, 99 respondents were self-employed or into business, forming 19.8% and 30 respondents were doing government jobs, forming 6% respectively. Hence, the maximum number of respondents were students, i.e. 45.2%, followed by 29% of respondents doing a private job.

3.7.7.4 Education Qualification

Table 3.1 shows the data related to the educational qualification of the respondents. The qualification of respondents has been categorized into five groups, i.e. 10th, 12th, undergraduate, postgraduate, self-employed/business, and other. It was observed that the majority of respondents who participated in the survey have done or are doing post-graduation, i.e. 127 respondents forming 25.4 % respectively.

3.7.7.5 Locations

Data related to locations has been shown in Table 3.1. Tier-II cities of Uttar Pradesh have been taken for collecting responses from the respondents. The Tier-II cities, namely Meerut, Ghaziabad, Aligarh, Agra, Bareilly, Lucknow, Kanpur, Allahabad, Gorakhpur and Varanasi, have been taken into consideration. 50 respondents from each city have been taken, forming 10% of the sample from each city.

3.7.7.6 Monthly Income

Monthly income of the respondents across the five categories of income of the total sample of 500 respondents has been shown in the Table 3.1 where 30.4% of the respondents earned less than Rs. 20,000 monthly, 26.6% of the respondents earned between Rs. 20,001 – 40,000 monthly, 21.8% of the respondents earned between Rs. 40,001 – 60,000 monthly, 12% of the respondents earned between Rs. 60,001 – 80,000 monthly and 9.2% of the respondents earned more than Rs. 80,001 monthly.

3.7.7.7 The Duration of Usage of the Green Apparel

Distribution of the respondents as per the duration of usage of the Green Apparel has been shown in Table 3.1. 32.2% of the respondents were using green apparel for 2 years or above, 28% of the respondents were using green apparel from 6 months to 1 year, 20.2% of the respondents were using green apparel from 1 year to 2 years, and 19.6% of the respondents were using green apparel from 0-6 months.

3.7.8 Measurement and Instrument

A self-administered and closed-ended questionnaire was used to collect the primary data for this study. The questionnaire comprises the items of fashion consciousness, variety seeking behavior, consumer innovativeness, physical product attributes, attitude, environmental concern, and green apparel buying behavior. Likert scale has been used and the respondents were requested to rate the statements on a five-point Likert scale from one (1) to five (5), anchored with 1 = 'strongly disagree' to 5 = 'strongly agree', which is supposed to be an interval scale.

Questionnaire design: The questionnaire is divided into two sections. The first section gathered the youth female shoppers' demographic information, and the second section was employed to obtain information regarding the research objectives.

According to (N. K. Malhotra, 2019), Likert scale can be conceptualized as "the widely used rating scale that requires the respondents to indicate the degree of agreement with each of a series of statements about the particular variable". The five-point Likert scale, where 1 = strongly disagree to 5 = strongly agree, is broadly employed in the area of

marketing and business research. The questionnaire is divided into two parts, as shown in Table 3.2.

Table 3.2: Summary of Research Instrumentation

	Part A	**Part B**
	Demographic Profile	**Antecedents of Green Apparel Buying Behavior**
Number of Questions	8	42
Scale of Measurement	Nominal	Interval Scale
Type of Scale	Multiple Choice Questions	Likert Scale

The questionnaire is divided into two parts. Part A is to examine the demographic profile of youth female shoppers, including age, marital status, education, occupation, location, income, green apparel brands they use and the duration of usage of the green apparel. Part B consists of 42 multi-item scaled questions related to fashion consciousness, variety seeking behavior, consumer innovativeness, physical product attributes, attitude, environmental concern, and green apparel buying behavior.

3.8 PILOT STUDY

A pilot study, also known as a feasibility study, is a small-scale preliminary study performed before the main research to check the feasibility or improve the research design. For a pilot study, a common guideline suggests that the sample size should be approximately 10% of the sample size projected for the larger main study. Alternatively, some literature recommends a minimum of 30 to 50 participants to ensure adequate feasibility assessment and data reliability (Whitehead et al., 2016). The sample of 50 participants was recommended for the pretesting of the questionnaire. Thus, the researcher's suggestions are very important for the appropriate questionnaire, so the researcher requested the respondents to give their suggestions if any modification is required in the questionnaire. The suggestions helped the researcher to clear the different kinds of doubts as follows:

1. Time taken to fill the questionnaire.
2. Identification of uncertain questions.
3. Identification of the difficulty level of the questionnaire.
4. Identification of objections to any particular question.
5. Recognition to add something to the questionnaire.

3.9 Validity and Reliability Testing of the Constructs

3.9.1 Validity

Validity refers to a measure's accuracy, particularly whether it measures what it is supposed to measure (Kimberlin & Winterstein, 2008; Leung, 2015). Measurement error is not generally zero, so we can speculate that research does not take place in a perfect situation. One of the prerequisites to evaluate a multi-item scale in research is to ensure accuracy and its application in order to ensure that there is no measurement error. Thus, to measure the accuracy of the measurement instrument, it is necessary that the validity and reliability of constructs have been properly examined. However, the content validity of the instrument has been verified by an expert in the concerned area in order to examine whether the scale items effectively cover the whole construct or not. When conducting a research study, the results might seem to be accurate but may have some errors. Thus, an essential point to be noted is that precautionary measures should be used to reduce the possibility of errors while conducting the research. Moreover, coding of the data was done with numbers in order to lessen errors while entering data into the computer. The easy and brief schedule was planned so that the questions were easy to understand and avoid errors as well.

For validating the content, the questionnaire was given to 9 experts in the concerned area and suggestions given by them were incorporated into the final draft of the questionnaire as well as administered to 50 females for face validity.

3.9.2 Reliability

Reliability refers to the consistency of a measure. It has been done to find out the degree to which an instrument produces constant results in repeated measurements. The reliability can be checked by measuring Cronbach's alpha (α) based on the averaging of all possible split-half coefficients that result from different splitting of scale items

through advanced software. Although Cronbach's alpha greater than 0.7 (α>0.7) has been widely used as the standard for adequate reliability (Cheung et al., 2024). More importantly, Cronbach's alpha (α) value reflects the internal consistency for various constructs of the instrument, calculated by using the statistical SPSS 25. Cronbach's alpha (α) values range from 0.6 to 0.9 for all the constructs. Hence, the reliability of constructs used in the questionnaire has been tested and can be used for further analysis. In a nutshell, all kinds of validity and reliability have been duly compiled to ensure the correctness of measurement scales.

Table 3.3: Reliability Analysis of the Instrument

Construct	Scale Item(s)	Cronbach's alpha (α)
Fashion consciousness	FC1: During shopping, I like to spend more time choosing the latest green apparel.	**0.899***
	FC2: Most probably, I am having more than one of the newest style green apparel.	
	FC3: I enjoy purchasing new and attractive green apparel.	
	FC4: I always keep myself up-to-date with the latest fashion trends in green apparel.	
	FC5: Green apparel is trendy.	
	FC6: Fashionable and attractive clothing is necessary for me.	
Variety Seeking Behavior	VSB1: While shopping, I found myself spending lot of time in checking out new green apparel.	**0.865***
	VSB2: I like to visit places where I will get information about new green apparel.	

	VSB3: I am continually seeking new designs in green apparel.	
	VSB4: I switch to another green apparel brand if it doesn't meet my expectations.	
	VSB5: I frequently look for new green apparel brands.	
	VSB6: I like to experience novelty in green apparel.	
Physical Product Attributes	PPA1: Green apparel is more comfortable than conventional apparel.	**0.901***
	PPA2: I buy green apparel that has less weight and is easy to carry.	
	PPA3: Green apparel is made of good quality fabric.	
	PPA4: Green apparel fits in size and shape.	
	PPA5: While purchasing green apparel, I look for the latest design.	
	PPA6: Green apparel is made from recycled material.	
Consumer Innovativeness	CI1: I usually buy new green apparel before other people know it exists.	**0.906***
	CI2: I would like to be the first to buy green apparel.	

	CI3: I am eager to buy green apparel as soon as they are available in stores.	
	CI4: I eagerly wait for the launch of trendy green apparel.	
	CI5: I often visit the store to see if new green apparel is out.	
	CI6: I need to become the first person to purchase new green apparel.	
Attitude	A1: I think it is very necessary to go for green apparel.	**0.913***
	A2: Buying green apparel makes me satisfied and happy.	
	A3: I am in favor of buying green apparel.	
	A4: I think choosing green apparel instead of conventional apparel is a good idea.	
	A5: Using green apparel is beneficial for me.	
	A6: Buying green apparel will help in saving nature and resources.	
Environmental Concern	EC1: Being an environmentally concerned person, I think purchasing green apparel is a wise idea.	**0.893***
	EC2: I believe green apparel will help in the preservation of nature and wildlife.	

	EC3: Using green apparel will help in reducing the wasteful use of natural resources.	
	EC4: By purchasing green apparel, we are protecting our environment.	
	EC5: I buy green apparel as protecting the environment is my major concern.	
	EC6: I think using green apparel is the major change required to save the natural environment.	
Green Apparel Buying Behavior	GABB1: I buy apparel made of organically grown natural fiber.	**0.894***
	GABB2: I purchase apparel with eco-labels and eco-packaging.	
	GABB3: I buy apparel made from recycled material.	
	GABB4: I prefer to buy green apparel with low impact or no dye processing.	
	GABB5: I buy green apparel even if they are more expensive than conventional apparel.	
	GABB6: I prefer buying green apparel as they are environmentally friendly.	

(*Acceptable range of Cronbach's Alpha)

(Henseler & Chin, 2010) stated that the internal consistency reliability of latent variables in PLS is underestimated by the Cronbach's Alpha value, which is the reason that composite reliability is considered a more suitable measure. As in the PLS analysis,

the composite reliability measure can also be used to confirm internal consistency. The composite reliability has been shown in Chapter 4. The value of composite reliability above 0.8 or 0.9 indicates satisfactory, whereas a value less than 0.6 indicates an adequate reliability (Henseler & Chin, 2010).

3.10 Summary of Reliability and Validity Process

Considering the above explanation, the content validity, face validity and reliability tests were carried out in detail. The results of reliability and validity tests are satisfactory. To be more specific, the results of these three processes have been summarized in one table. Table 3.4 summarized the reliability and validity process for the present study.

Table 3.4: Summary of Reliability and Validity Process

Process	Details
1. Content Validity Is the concept measured adequately, concerning the past research or the concerned expert's point of view?	Expertise in the area of Retail Marketing and Consumer Behavior.
2. Face Validity Does the sample validate only understandable and clear items?	A sample of 50 Youth Female shoppers has been taken.
3. Reliability How does a measuring instrument measure a concept?	Using Cronbach's Alpha>0.7 (George & Mallery, 2011).

3.11 SOURCES OF DATA

This study utilized both primary and secondary data to achieve a comprehensive understanding of green apparel buying behavior among youth females in Uttar Pradesh.

❖ **Primary Data**

Primary data refers to original data collected directly from respondents specifically for this research. In this study, primary data were gathered through a structured questionnaire administered to youth females aged 15 to 29 years across various regions of Uttar Pradesh. The questionnaire was designed to capture detailed information on respondents' attitudes, perceptions, environmental concern, fashion involvement, and actual green apparel purchasing behavior.

❖ **Secondary Data**

Secondary data refers to existing information that was collected by other researchers or organizations for purposes other than the current study. For this research, secondary data were obtained from peer-reviewed journals, government publications, industry reports, databases, and previous academic studies relevant to sustainable fashion, consumer behavior, and green marketing. These sources were instrumental in constructing the theoretical framework, identifying research gaps, and supporting the literature review.

❖ **Comparison and Rationale**

While both types of data were used, primary data served as the principal source for statistical analysis and hypothesis testing. It offered direct insights from the target population, enabling an empirical investigation of the relationships among variables such as physical product attributes, attitude, fashion consciousness, variety seeking behavior, consumer innovativeness, environmental concern, and green apparel buying behavior. Secondary data, on the other hand, complemented the primary data by providing context, validating constructs, and ensuring theoretical alignment.

3.12 ANALYSIS TECHNIQUE

Data analysis is the process of analyzing, cleaning, transforming, and modelling data with the objective of discovering useful information, drawing conclusions, and enhancing decision-making. It involves applying various statistical and computational techniques to interpret and derive insights from large datasets. It is not just the end of the research process; rather, it is intended to create information that will assist the

researcher in dealing with the research problem. Data analysis techniques are essential in research as they allow researchers to draw meaningful insights from data sets to support their hypothesis or research objectives. The acquired data was analyzed in order to meet the study's objectives. The data was analyzed using an appropriate statistical method, and the results were interpreted. Advanced Multivariate data analysis techniques like Structural Equation Modelling (SEM) have been used with the help of Smart PLS 4 software to achieve the objectives of the present study and to test the hypothesis. The data was analyzed using Smart PLS 4 and the Statistical Package for the Social Sciences (SPSS 25) software.

At last, hypotheses testing has been conducted in order to determine whether the hypothesis that have been made in accordance with the review of existing literature were accepted or rejected. The analysis of data was interpreted to obtain the relevant information regarding the antecedents and outcome of Green Apparel Buying Behavior among youth female shoppers. However, for a better understanding of the characteristics of each variable, descriptive analysis was used to illustrate frequencies, demographic analysis and the mean of each variable.

3.13 HYPOTHESIS FORMULATION

A hypothesis is an unproven proposition for a decision problem that can be empirically evaluated using data collected during research. It is often used to justify phenomena or relationships between variables (Hair et al., 2019). The null hypothesis (H0) states no difference or effect (N. K. Malhotra, 2020). The alternative hypothesis states that there is a difference between two or more variables. It's represented by H_a or H_1. The hypotheses were formulated to be tested in the study to find the significant effect of variables under study on the green apparel buying behavior of youth female shoppers living in the selected Tier-II cities of Uttar Pradesh. Here, Ho represents the Null Hypothesis, and Ha represents the Alternative Hypothesis. The alternative hypothesis was developed based on the study objectives. The hypotheses framed in the study are as follows:

The first two hypotheses (Ha1 and Ha2) are framed to measure the impact of physical product attributes and attitude on green apparel buying behavior, expressed as -

Ha1: There is a significant effect of Physical Product Attributes on Green Apparel Buying Behavior.

Ha2: There is a significant effect of Attitude on Green Apparel Buying Behavior.

The next set of hypotheses (Ha3, Ha4 and Ha5) are framed to measure the mediating effect of Environmental Concern between Fashion Consciousness, Variety Seeking Behavior, Consumer Innovativeness and Green Apparel Buying Behavior are expressed as -

Ha3: Environmental Concern plays the role of mediator between Fashion Consciousness and Green Apparel Buying Behavior.

Ha4: Environmental Concern plays the role of mediator between Variety Seeking Behavior and Green Apparel Buying Behavior.

Ha5: Environmental Concern plays the role of mediator between Consumer Innovativeness and Green Apparel Buying Behavior.

The last hypothesis (Ha6) is framed to measure the moderating effect of Age between Environmental Concern and Green Apparel Buying Behavior is expressed as –

Ha6: Age plays a role as a moderator between Environmental Concern and Green Apparel Buying Behavior.

CHAPTER – 4

DATA ANALYSIS AND INTERPRETATION

This chapter consists of data analysis and interpretation of the results. The data analysis has been done by using appropriate statistical tests with the help of statistical tools such as Smart PLS 4 and SPSS 25. In the data analysis, to check whether the proposed hypotheses are supported or not, data needs to be analyzed appropriately. Therefore, the data analysis is done to examine whether the research objectives are achieved or not. Thus, appropriate statistical techniques are used to make sure that all the framed hypotheses are considerably supported and also have a symbolic association with each other's variables. However, this chapter deals primarily with validating the model by using more advanced statistical techniques and tools.

4.1 Descriptive Statistics

Descriptive statistics are employed to summarize and describe the main characteristics of the dataset, including the central tendency (mean) and dispersion (standard deviation) for each item related to the constructs under study. A total of 500 valid responses were analyzed to understand the demographic and psychographic profiles of youth females in Tier-II cities of Uttar Pradesh concerning green apparel buying behavior.

Table 4.1: Descriptive Statistics

Items	N	Minimum	Maximum	Mean	Std. Deviation
FC1	500	1	5	4.19	.988
FC2	500	1	5	3.97	.883
FC3	500	1	5	4.01	.936
FC4	500	1	5	4.04	.929
FC5	500	1	5	4.12	.919
FC6	500	1	5	4.11	.959
VSB1	500	1	5	3.84	1.192

VSB2	500	1	5	3.87	.934
VSB3	500	1	5	3.99	.950
VSB4	500	1	5	4.02	.892
VSB5	500	1	5	4.06	1.006
VSB6	500	1	5	4.17	.945
PPA1	500	1	5	3.93	1.185
PPA2	500	1	5	3.93	.858
PP3	500	1	5	4.10	.904
PPA4	500	1	5	4.15	.893
PPA5	500	1	5	4.23	.870
PPA6	500	1	5	4.20	.903
CI1	500	1	5	3.90	1.162
CI2	500	1	5	3.93	.890
CI3	500	1	5	3.89	.958
CI4	500	1	5	4.00	.903
CI5	500	1	5	3.99	1.011
CI6	500	1	5	4.05	1.056
A1	500	1	5	3.98	1.185
A2	500	1	5	3.98	.947
A3	500	1	5	4.12	.904
A4	500	1	5	4.17	.849
A5	500	1	5	4.19	.892
A6	500	1	5	4.23	.879
EC1	500	1	5	4.00	1.162
EC2	500	1	5	4.01	.827
EC3	500	1	5	4.20	.875
EC4	500	1	5	4.20	.873

EC5	500	1	5	4.15	.897
EC6	500	1	5	4.26	.883
GABB1	500	1	5	4.02	1.158
GABB2	500	1	5	4.00	.917
GABB3	500	1	5	4.08	.904
GABB4	500	1	5	4.16	.830
GABB5	500	1	5	4.14	.924
GABB6	500	1	5	4.35	.875
Age	500	1	3	2.11	.796
Valid N (listwise)	500				

❖ **Interpretation of Descriptive Statistics**

1. **Fashion Consciousness (FC)**

The mean scores for the items measuring fashion consciousness (FC1 to FC6) ranged from 3.97 to 4.19, with standard deviations between 0.883 and 0.988. These high mean values reflect a strong awareness and interest in fashion trends among the respondents, and the relatively low standard deviations suggest consistency in responses.

2. **Variety Seeking Behavior (VSB)**

For variety seeking behavior (VSB1 to VSB6), the mean values ranged from 3.84 to 4.17. The highest variability was observed in item VSB1 (SD = 1.192), indicating that while many respondents prefer variety in clothing, opinions vary to some extent. Overall, the findings suggest a positive inclination toward trying different fashion styles and options.

3. **Physical Product Attributes (PPA)**

The items assessing the importance of physical product attributes (PPA1 to PPA6) yielded mean scores between 3.93 and 4.23, indicating that tangible

features such as design, fabric, and color are important considerations in the purchase of green apparel. The standard deviations (0.858 to 1.185) indicate moderate variability in responses.

4. **Consumer Innovativeness (CI)**

Consumer innovativeness (CI1 to CI6) had mean scores ranging from 3.89 to 4.05, suggesting that respondents demonstrate a reasonably innovative approach toward apparel consumption. Standard deviations ranged from 0.890 to 1.162, indicating a moderate level of variability in their willingness to try new products or brands.

5. **Attitude (A)**

The attitude construct (A1 to A6) showed high mean scores (3.98 to 4.23), with low standard deviations (0.849 to 1.185), suggesting that respondents generally possess a favorable attitude towards purchasing green apparel. This reflects positive personal evaluations and beliefs about eco-friendly clothing.

6. **Environmental Concern (EC)**

Items EC1 to EC6, measuring environmental concern, recorded mean scores between 4.00 and 4.26. These high values signify that the youth respondents are environmentally conscious and consider ecological factors in their apparel-buying decisions. The low standard deviations (0.827 to 1.162) indicate consistent environmental concern across the sample.

7. **Green Apparel Buying Behavior (GABB)**

The green apparel buying behavior construct (GABB1 to GABB6) revealed the highest mean scores, ranging from 4.00 to 4.35. This suggests a strong tendency among respondents to engage in sustainable fashion practices. The standard deviations (0.830 to 1.158) imply that most respondents frequently purchase or intend to purchase green apparel.

8. Demographic Variable Age

The age of the respondents was categorized and coded from 1 to 3. The mean age score was 2.11 with a standard deviation of 0.796, indicating that the majority of participants belonged to the middle age category (i.e. 20–24 years, coded as 1 = 15–19, 2 = 20–24, 3 = 25–29).

❖ **Summary**

The descriptive analysis reveals that the target sample — youth females in Tier-II cities of Uttar Pradesh — is highly fashion-conscious, environmentally aware, and exhibits a strong preference for green apparel. The constructs measured display high mean scores with acceptable levels of variation, providing a solid foundation for further inferential analysis, such as structural equation mode ling to test hypotheses.

Table 4.2: Descriptive Statistics Summary

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Fashion Consciousness (FC1–FC6)	500	1	5	4.07–4.19	~0.88–0.99
Variety Seeking Behavior (VSB1–VSB6)	500	1	5	3.84–4.17	~0.89–1.19
Physical Product Attributes (PPA1–PPA6)	500	1	5	3.93–4.23	~0.86–1.18
Consumer Innovativeness (CI1–CI6)	500	1	5	3.89–4.05	~0.89–1.16
Attitude (A1–A6)	500	1	5	3.98–4.23	~0.85–1.18
Environmental Concern (EC1–EC6)	500	1	5	4.00–4.26	~0.82–1.16
Green Apparel Buying Behavior	500	1	5	4.00–4.35	~0.83–1.16

(GABB1–GABB6)					
Age	500	1	3	2.11	0.796

4.2 STRUCTURAL EQUATION MODELING – PARTIAL LEAST SQUARES (PLS)

Structured Equation Modeling is a method that aims to show the relationship between multiple factors. It is divided into two components:

1. Measurement Model
2. Structural Model

The measuring model, also known as the outer model, allows researchers to employ several variables for a single dependent or independent variable. The structural model, also known as the inner model, is a path model that connects the independent variables to the dependent variables (Jr. et al., 2018).

Similarly, Structural Equation Modeling consists of numerous statistical methods that allow the assessment of a causal hypothetical networking of relationships associated with latent construct notions, each explained by the number of indicators (Esposito Vinzi et al., 2010). SEM determines the variables associated with each construct, and then loadings areanalyzed. Cross loadings should be avoided if variables are connected to the construct (Jr.et al., 2018). Furthermore, in Structural Equation Modelling, there are normally two usefulmethodologies in the area of consumer behavior and marketing:

1. Covariance-based Structural Equation Modeling (SEM)
2. Partial Least Squares based Structural Equation Modeling (SEM)

Both of the mentioned data analysis methodologies are recognized as second-generation approaches (Gefen et al., 2000). The covariance-based technique (SEM) uses model fit to compare research models and also to support the theory that offers the best modelfit. In a summary, the results included residuals and indices indicating how closely the suggested model fits the data versus the best-fitting covariance structural model. However, the covariance-based technique (SEM) minimizes the difference among the covariances predicted by the hypothetical model (Chin, 2015; Jr. et al.,

2018). As a result, CB (SEM) focuses solely on explanations and appropriate theory testing techniques (Chin & Newsted, 1999).

Partial Least Squares (SEM) is a route modeling technique that reveals the intricate multivariate relationships between the exogenous and endogenous variables (Esposito Vinzi et al., 2010). Partial Least Squares (SEM) method, like the "Ordinary Least Squares Multiple Regression technique" (OLS), is meant to provide explanations based on variance. Thus, this technique places a greater focus on prediction alone (Chin & Newsted, 1999; Jr.et al., 2018). The PLS (SEM) technique predicts parameters to reduce residual error in dependent variables, whereas the CB (SEM) technique determines the variance of all observable variables (Gefen et al., 2000). While partial least squares (PLS) can be used to confirm theories, it can also provide recommendations for further testing of the model andidentify correlations between variables (Chin, 2015). Smart PLS software is required for PLS (SEM) applications, whereas AMOS software is needed for CB (SEM) approaches. Even though there are minimal variations between both methodologies, namely PLS (SEM) and CB (SEM), the underlying requirement for assessing the structural model is similar (Jr. et al., 2018). The researcher used Smart PLS to study both measurement and structural modeling. Thus, compared to the Covariance-based (SEM) technique, the PLS (SEM) technique has become increasingly popular for structural analysis. The partial leastsquares (SEM) technique might be seen as the most popular technique, especially in marketing studies and for examining various customer motivations (Albers, 2014; Sarstedt et al., 2021b). These are the steps to be followed to perform Smart PLS SEM: Import data file in the software (CSV format) > Create model (PLS) > Click Calculate > Select PLS SEM algorithm > Select 'Factor' > Start Calculation.

Based on the literature review, the current study focuses on the antecedents of the Green Apparel Buying Behavior. The proposed determinants of Green Apparel Buying Behaviorhave been studied using both direct and indirect methods to understand their relationship. The indirect impact of the antecedents Fashion Consciousness, Variety Seeking Behavior, and Consumer Innovativeness have been shown by the mediator Environmental Concern on Green Apparel Buying Behavior among youth female shopper. The validity and reliability of latent constructs are examined. Before analyzing

the structural model, a two-step SEM analysis is performed, which includes measuring the model and fitting it to ensure the quality of the suggested model. The analysis of the objectives is discussed below.

Objective 1: To investigate the relationship between physical product attributes and attitude on green apparel buying behavior

H1a: Physical Product Attributes have a significant effect on Green Apparel Buying Behavior.

H1b: Attitude has a significant effect on Green Apparel Buying Behavior.

I. Content and Face Validity (Reliability Statistics)

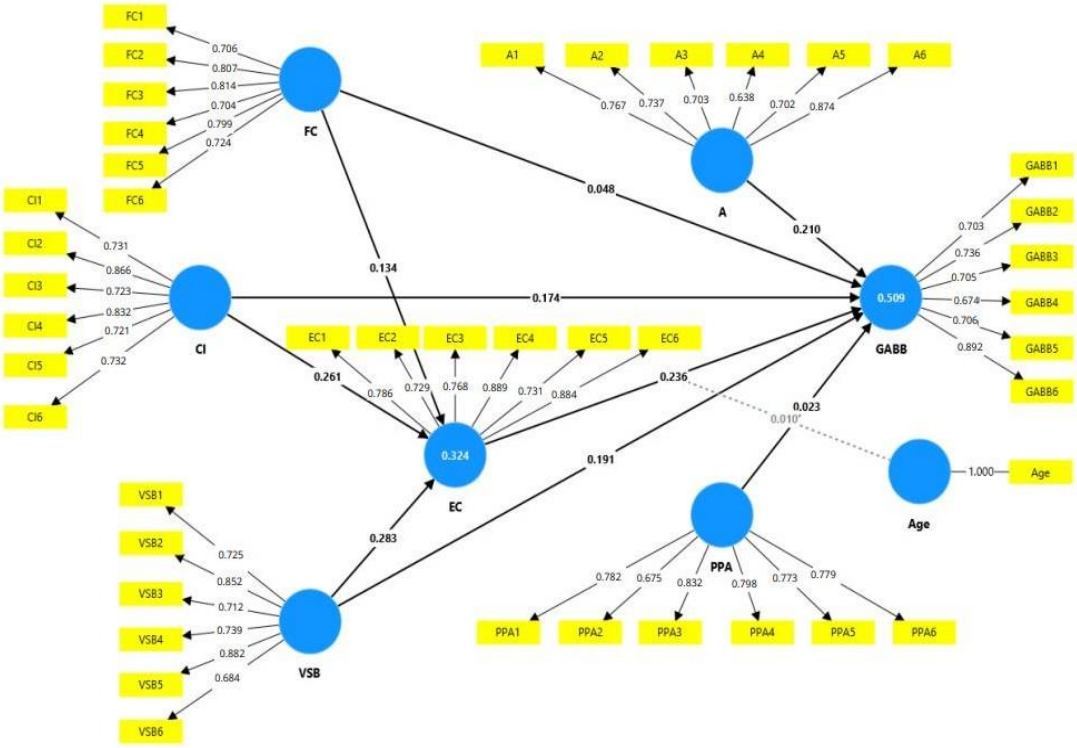
Cronbach's Alpha test and Composite Reliability tests are done on 50 questionnaires, representing 10% of the sample size, to ensure data reliability and validity. Data was collected using a self-structured questionnaire. After data collection for the pilot study, Cronbach's Alpha test is performed through SPSS software as shown in Table 4.3.

Table 4.3: Reliability of the Constructs

Serial No.	Constructs	Total No. of items included	Cronbach's Alpha	Scale Type	Consistency
1.	Physical Product Attributes	6	0.901	5-point Likert Scale	Excellent
2.	Attitude	6	0.913	5-point Likert Scale	Excellent
3.	Fashion Consciousness	6	0.899	5-point Likert Scale	Good
4.	Consumer Innovativeness	6	0.906	5-point Likert Scale	Excellent
5.	Variety Seeking Behavior	6	0.865	5-point Likert Scale	Good
6.	Environmental Concern	6	0.893	5-point Likert Scale	Good

7.	Green Apparel Buying Behavior	6	0.894	5-point Likert Scale	Good

Source: Overall reliability of all variables from SPSS software



Source: Computed from Smart PLS

Figure 4.1: Measurement Model

a. Outer Loadings

An outer loading represents the reflective outer model (arrows from latent variable to indicators), indicating whether each factor loads on its parent construct. They determine an item's absolute contribution to the given construct. The outer loadings of each component on its parent construct should be more than 0.70 (Sarstedt et al., 2021b). In this study, the results of factor loadings depict a good fit. Factor loadings values above 0.5 are considered acceptable, and values less than 0.5 need to be discarded (Chin, 2015). The factor loadings represent a basic correlation between a factor and its indicators. The higher the loading, the greater the importance of the factor. Ideally, factor loadings should be greater than 0.6. But in the case of the larger sample, factor loadings above 0.4 or 0.5 are acceptable. From Table 4.4, it can be observed that almost

all the factors are above 0.6, which is good. It means the data fits the model. The factor loading of physical product attributes, attitude and green apparel buying behavior range between 0.67-0.83, 0.63-0.87 and 0.67-0.89, respectively. The results of factor loadings are presented in the table below.

Table 4.4: Factor loadings , VIF, Composite Reliability, Cronbach's Alpha, AverageVariance Extracted (AVE)

Constructs	Indicators	Outer Loadings	VIF	Cronbach's Alpha	Composite Reliability	AVE
Physical Product Attributes	PPA 1	0.782	1.342	0.760	0.833	0.654
	PPA2	0.675	1.413			
	PPA3	0.832	1.292			
	PPA4	0.798	1.447			
	PPA5	0.773	1.388			
	PPA6	0.779	1.395			
Attitude	A1	0.767	1.331	0.777	0.843	0.773
	A2	0.737	1.577			
	A3	0.703	1.478			
	A4	0.638	1.403			
	A5	0.702	1.416			
	A6	0.874	1.427			
Fashion Consciousness	FC1	0.706	1.225	0.744	0.822	0.737
	FC2	0.807	1.401			
	FC3	0.814	1.270			
	FC4	0.704	1.531			
	FC5	0.799	1.344			
	FC6	0.724	1.381			
Consumer Innovativeness	CI1	0.731	1.306	0.753	0.829	0.548
	CI2	0.866	1.375			
	CI3	0.723	1.273			

	CI4	0.832	1.356			
	CI5	0.721	1.517			
	CI6	0.732	1.531			
Variety Seeking Behavior	VSB1	0.725	1.248	0.747	0.826	0.542
	VSB2	0.852	1.304			
	VSB3	0.712	1.312			
	VSB4	0.739	1.427			
	VSB5	0.882	1.453			
	VSB6	0.684	1.523			
Environmental Concern	EC1	0.786	1.415	0.791	0.851	0.678
	EC2	0.729	1.551			
	EC3	0.768	1.399			
	EC4	0.889	1.605			
	EC5	0.731	1.491			
	EC6	0.884	1.469			
Green Apparel Buying Behavior	GABB1	0.703	1.445	0.796	0.854	0.794
	GABB2	0.736	1.592			
	GABB3	0.705	1.472			
	GABB4	0.674	1.450			
	GABB5	0.706	1.469			

	GABB6	0.892	1.456			

Source: Computed from Smart PLS

b. Construct Reliability

The final step in determining the construct validity is construct reliability. It is a statistical tool used to evaluate the consistency of measurements in a PLS-SEM model. It is part of a broader evaluation of a measurement model, which also includes convergent validity and discriminant validity. Higher values usually indicate higher levels of reliability. A value of 0.70 or higher is generally considered to indicate acceptable reliability. Some studies indicate that reliability values between 0.60 and 0.70 are acceptable in exploratory research, while values between 0.70 and 0.90 range from satisfactory to good (Sarstedt et al., 2021b). Table 4.2 shows the reliability results for the various constructs. An acceptable AVE is 0.50 or greater. As a result, Average Variance Expected (AVE) and Composite Reliability were greater than or equal to 0.60 and 0.70, respectively.

c. Convergent Validity

Convergent validity refers to how well a construct explains the variation among its elements. The average variance extracted (AVE) for all items on a construct is used to assess its convergent validity. An acceptable AVE is 0.50 or higher, indicating that the construct explains at least 50% of the variance of its items (Hair et al., 2019). An Average Variance Expected (AVE) value is higher than or close to 0.50 and 0.70, respectively. Thus, AVE values are greater than 0.50 for all the constructs, so convergent validity was approved to provide the utilization of the factor. Hence, all variables used in the construct are reliable, which indicates strong reliability.

d. Discriminant Validity

Discriminant validity refers to the degree to which constructs in a model differ from each other. It is an important step in analyzing relationships between constructs (Hair et al., 2019). It is a measure of the construct's uniqueness. The discriminant authenticity of the construct can be assessed in many ways. When the shared variance inside a construct (AVE)exceeds the shared variance between constructs, discriminant validity is

demonstrated. The Heterotrait-Monotrait (HTMT) correlation ratio is a required approach. HTMT is a moderntechnique for assessing the discriminant validity of PLS structural equation models, whichis an important part of model evaluation. Table 4.5 shows the discriminant validity of the constructs. The discriminant values are less than the threshold value of 0.85 and 0.90, which demonstrates proper discriminant validity (Franke & Sarstedt, 2019). Hence, the result meets the satisfactory condition of discriminant validity.

Table 4.5: Discriminant Validity

	A	CI	EC	FC	GABB	PP	VSB
A							
CI	0.718						
EC	0.795	0.628					
FC	0.514	0.577	0.519				
GABB	0.757	0.722	0.741	0.549			
PP	0.658	0.684	0.674	0.708	0.631		
VSB	0.701	0.795	0.661	0.754	0.755	0.82	

Source: Computed from Smart PLS

e. Multicollinearity

Multicollinearity occurs when two or more other independent variables are highly correlated, indicating that one or more independent variables can be estimated linearly using one or more independent variables. The Smart PLS application is used to test for multicollinearity and evaluate variance inflation factors (VIF). Collinearity among formative indicators is often assessed using the variance inflation factor (VIF). VIF values of 5 or above indicate significant collinearity between indicators of formatively measured constructs. Ideally, VIF values should be close to 3 or lower (Hair et al., 2019). However, the VIF value mentioned should be less than 3, which can be considered as an indication of collinearity. Table 4.2 shows the multicollinearity values for physical product attributes, attitude and green apparel buying behavior; all the values are less than 3, indicating that the data has no collinearity issues.

II. ASSESSMENT OF STRUCTURAL MODEL (INNER MODEL)

The structural model is a component of a structural equation modeling (SEM) framework used to investigate complex relationships between variables. A structural model consists of exogenous variables that affect other constructs and endogenous constructs thatare influenced by other variables. The structural model in PLS-SEM includes:

Exogenous variables: Variables that affect other constructs.

Endogenous constructs: Variables that are affected by other constructs.

Mediators: Endogenous construct that affects other endogenous constructs.

The structural model presented for evaluation in Figure 4.2, states that Green apparel buying behavior is the endogenous variable. Physical product attributes and attitude are the exogenous variables. The analysis includes testing the coefficient of determination (R^2) and the structural model path coefficient. The examination was carried out to study the relationship between physical product attributes and attitude on green apparel buying behavior. Hypothesis was tested by running a bootstrapping procedure with a re-sample of 5000, as suggested by (Sarstedt et al., 2021b).

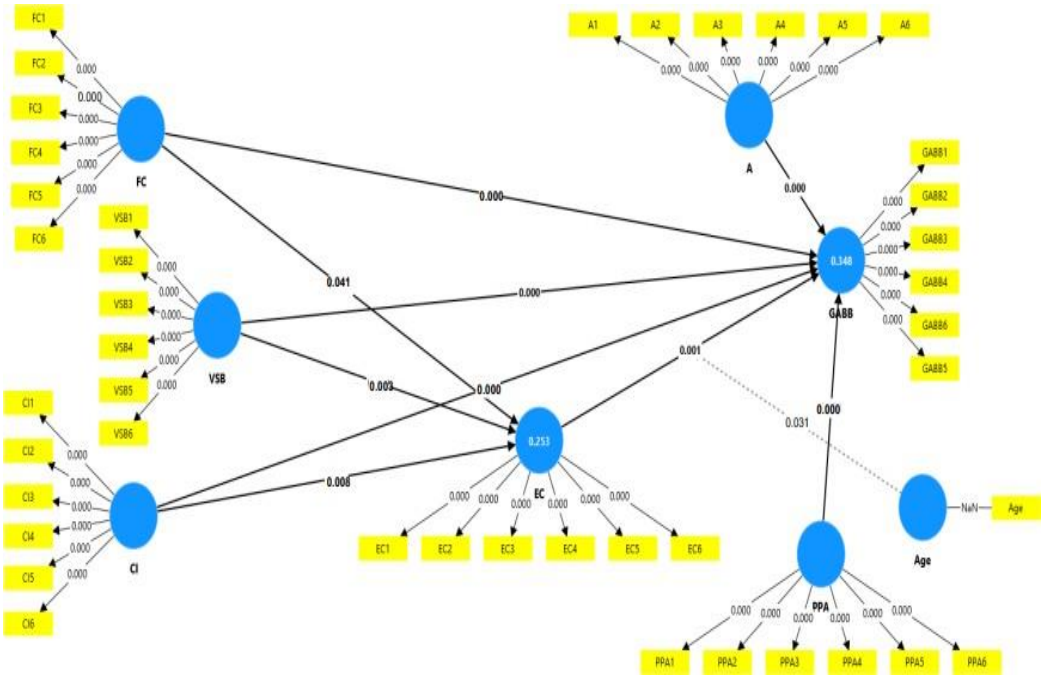


Figure 4.2: Structural Model

Table 4.6: PATH COEFFICIENTS

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
A -> GABB	0.210	0.218	0.057	3.776	0.000
PPA -> GABB	0.023	0.021	0.048	2.736	0.000

Source: Computed from Smart PLS

III. Hypothesis Testing

In the PLS-SEM context, hypothesis testing is done by calculating the P value for each path coefficient, where the P value may be one-tailed or two-tailed depending on the researcher's prior knowledge about the direction of the path and the sign of its associated coefficient (Kock, 2016).

The proposed hypotheses are offered as two alternative hypotheses (Ha1 and Ha2) to measure the effect of physical product attributes (PPA) and attitude (A) on green apparel buying behavior (GABB).

Ha1: Physical Product Attributes have a significant positive effect on green apparel buying behavior.

The hypothesis evaluates that physical product attributes have a significant positive effect on green apparel buying behavior. The results revealed that physical product attributes (ß = 0.023, t = 2.736, P > 0.05) have a significant impact on green apparel buying behavior. Hence, Ha1 is supported.

Ha2: Attitude has a significant positive effect on green apparel buying behavior.

The hypothesis evaluates that attitude has significant positive impact on green apparel buying behavior. The results revealed that attitude (ß = 0.210, t = 3.776, P < 0.05) have a significant impact on green apparel buying behavior. Hence, Ha2 is supported.

Table 4.7: SUMMARY OF HYPOTHESIS TESTING

Hypothesis Tested		P Value	Hypothesis Accepted/ Rejected
Ha1	Attitude has significant positive effect on green apparel buying behavior.	0.000	Accepted
Ha2	Physical Product Attributes has a significant positive effect on green apparel buying behavior.	0.000	Accepted

❖ **Comprehensive Interpretation of Results**

A comprehensive interpretation of the results on the relationship between physical product attributes and attitude on green apparel buying behavior is discussed below. This interpretation includes theoretical reasoning, contextual analysis, and comparison with existing literature. The analysis revealed a significant positive relationship between physical product attributes (such as design, quality, color, comfort, and durability) and green apparel buying behavior. Additionally, consumer attitude was found to have a strong relationship with green apparel buying behavior.

1. **Physical Product Attributes → Green Apparel Buying Behavior**

This relationship suggests that tangible product features—which traditionally influence consumer preference in fashion—are equally important in the context of green apparel. Youth consumers, particularly females, are unlikely to compromise on aesthetics, comfort, or durability even when purchasing eco-friendly clothing.

❖ **Reasoning**

According to Consumer Value Theory (Sheth et al., 1991) and Means-End Chain Theory (Gutman, 1982), consumers often make purchase decisions based on how

product attributes help them achieve desired consequences (e.g., looking fashionable, feeling comfortable) and fulfil personal values (e.g., environmental consciousness). If green apparel does not look or feel good, even environmentally aware consumers may avoid it.

❖ **Literature Support**

The studies by (Chan & Wong, 2012) and (Joy et al., 2012c), show that product aesthetics and quality are non-negotiable attributes, even for ethical consumers. It highlights that green cannot replace style — it must complement it.

2. Attitude → Green Apparel Buying Behavior

A positive consumer attitude toward green apparel was found to significantly influence purchase behavior. Attitude encompasses environmental beliefs, awareness of sustainability issues, and emotional evaluation of eco-fashion.

❖ **Reasoning**

Grounded in the Theory of Planned Behavior (TPB) by (Ajzen, 1991), attitude is one of the strongest predictors of intention and behavior. When consumers believe in the importance of sustainability, and view green apparel as a way to express their values, they are more likely to engage in ethical consumption.

❖ **Literature Support**

This is consistent with studies by (Vermeir & Verbeke, 2008) and (Biswas & Roy, 2015b), who argued that favorable attitudes toward sustainability enhance ethical consumption, especially among educated youth.

3. Interaction Between Product Attributes and Attitude

The study also suggests that attitude acts as a bridge—product attributes alone may not drive behavior unless they align with or reinforce a consumer's positive attitude toward sustainability. For instance, a well-designed green product may still fail in the market if consumers do not perceive sustainability as important.

- **Reasoning**

This reflects a dual-pathway model by (Strack & Deutsch, 2004), where both rational evaluation (product features) and emotional/ethical evaluation (attitude) must align to influence green buying behavior. The combination of functional satisfaction and value alignment makes the decision stronger and more consistent.

- **Literature Support**

Research by (Thøgersen, 2014) and (P. Kumar & Ghodeswar, 2015) supports this interaction, suggesting that attitude amplifies the effect of product appeal on purchase intention, especially in ethical markets like sustainable fashion.

- **Contextual Insight (Uttar Pradesh, Youth Females)**

Among youth females in Uttar Pradesh, the interplay between style and sustainability is particularly significant. This demographic is increasingly exposed to social media trends, brand influencers, and global fashion ideals, making product attractiveness a key factor. However, a growing awareness of environmental issues—often through education and peer influence—means that attitudes toward sustainability are strengthening.

This dual influence explains why both attitude and product attributes matter: young women want to look good and feel good about what they buy.

4.3 MEDIATION EFFECTS ON PLS PATH MODELS

Baron and Kenny's (1986) criteria for measuring the mediation effect have been cited in about 131475 journal articles and are expected to gain popularity over time (X. Zhao et al., 2010). Three tests are required to determine if an exogenous (independent) variable has an impact on the endogenous (dependent) variable through a mediating (intervening) variable. It is essential to understand that to assess the mediation effect, three conditions must be met. In the first condition, the independent variable should show the direct effect of the dependent variable without the mediation effect, whereas in the second condition, the independent variable must show the dependent variable through the mediation effect.

In the final or third condition, both the direct influence of independent on dependent and the indirect effect through the mediator must be examined. (Baron & Kenny, 1986) suggestions for interpreting the mediation effect are as follows:

1. Mediation is effective when there is an indirect effect without a direct effect. However, the level of mediation should be assessed by the amount of indirect effect rather than the absence of direct effect.
2. There is no need for a significant impact to be mediated in the second condition; instead, determine mediation based on the indirect effect assumed to be significant.

Moreover, the PLS-SEM uses the bootstrap test to test for mediation effects, as previously mentioned.

Objective 2: To examine the direct and indirect effects of fashion consciousness, variety seeking behavior and consumer innovativeness through environmental concern on green apparel buying behavior among female shoppers.

Ha3: Environmental Concern plays the role of a mediator between Fashion Consciousness and Green Apparel Buying Behavior.

Ha4: Environmental Concern plays the role of a mediator between Variety-Seeking Behavior and Green Apparel Buying Behavior.

Ha5: Environmental Concern plays the role of a mediator between Consumer Innovativeness and Green Apparel Buying Behavior.

In Smart PLS, the examination of the measurement model (MM) and structural equation modeling (SEM) is necessary. Measurement model assesses the reliability and validity of items with their parent construct, and the structural model assesses the hypothetical relationship between two parent constructs. Once the reliability and accuracy of the measurement construct have been established, further analysis can proceed. Further, the evaluation of the findings from the structural model is the next phase in which the constructs and predictive relationships are examined. The key results (i.e. Path coefficient and R^2) of the structural models were discussed. To determine the significance of path coefficients, bootstrapping is used. The minimum bootstrap sample

should be 5000. There should be an equivalent number of cases if there were valid observations in the original sample. 2.57 (significance level at 1%), 1.96 (significance level at 5%), and 1.65 (significance level at 10%).

There are requirements to be fulfilled before testing the mediation hypothesis as given by (Baron & Kenny, 1986). Baron and Kenny's causal step approach is widely recognized and cited (X. Zhao et al., 2010). Firstly, the Independent Variable (IV) and Dependent Variable (DV) must be correlated to establish mediation. Secondly, the Mediating Variable (MV) and Dependent Variable (DV) must be independently correlated, and the Independent Variable (IV) and Mediating Variable (MV) must have a strong correlation.

Table 4.8: Steps to Present Results of SEM-PLS

Evaluation of MM
Reflective MM
Composite Reliability (CR)
Convergent Validity (AVE)
Discriminant Validity (HTMT)
Evaluation of SM
Coefficient of Determination (R^2)
Predictive Relevance (Q^2)
f^2 effect size
q^2 effect size

Source: Computed from analysis

I. Path Coefficients

From Table 4.7, it can be computed that there is a significant relationship between FC, VSB and CI (IV) and GABB (DV) in the absence of EC (MV). So, the first condition is accomplished by SEM analysis, i.e. IV and DV must share a significant relationship (t-value > 1.96) and (P value < 0.05). There is a significant relationship between FC and GABB, VSB and GABB, and CI and GABB.

Table 4.9: PATH COEFFICIENTS

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
FC -> GABB	0.048	0.049	0.045	2.776	0.000
VSB -> GABB	0.191	0.192	0.057	3.348	0.000
CI -> GABB	0.174	0.176	0.056	3.159	0.000

Source: Computed from Smart PLS

In the Smart PLS path model, when using the mediating variable, the indirect effect needs to be insignificant. A significant indirect effect indicates that some of the direct effects are absorbed by the mediator. For instance, in a PLS path model without a mediating variable, a positive direct effect would become smaller after the inclusion of a mediating variable. The question is, how much does the mediating variable absorb? The Variance Accounted For (VAF) measures the amount of the indirect influence on total effects (DE+IE). As a result, we can determine how much of the dependent variable's variance is explained directly by the independent variable, as well as how much of the target construct's variance is explained indirectly through the mediating variable. If the VAF is less than 20%, no mediation occurs. If VAF is more than 20% but less than 80%, partial mediation occurs; if VAF is greater than 80%, complete mediation occurs.

In mediation analysis, direct effect, total effect and indirect effects are calculated to examine whether there is ‘no mediation’, ‘full mediation’, and ‘partial mediation’. Total effect is the sum of direct effect and indirect effect (Total Effect = Direct Effect + Indirect Effect). From Table 4.9, the total effect is computed by examining the relationship between the independent variables (FC, CI and VSB) and the dependent variable (GABB), which is 0.182, 0.474, and 0.435, respectively. From Table 4.10, the

specific indirect effects between FC, VSB, and CI are 0.134, 0.283, and 0.261, respectively.

To calculate the total effect,

Total Effect (TE) = Direct Effect (DE) + Indirect Effect (IE)

For FC,

Total Effect (TE) = Direct Effect (DE) + Indirect Effect (IE)

0.182 = 0.048 + 0.134

0.182 = 0.182

For VSB,

Total Effect (TE) = Direct Effect (DE) + Indirect Effect (IE)

0.474 = 0.191 + 0.283

0.474 = 0.474

For CI,

Total Effect (TE) = Direct Effect (DE) + Indirect Effect (IE)

0.435 = 0.174 + 0.261

0.435 = 0.435

II. Total Effects

Table 4.10: TOTAL EFFECT

	Original sample (O)	**Sample mean (M)**	**Standard deviation (STDEV)**	**T statistics (|O/STDEV|)**	**P values**
FC -> GABB	0.182	0.185	0.054	3.776	0.000
VSB -> GABB	0.474	0.473	0.057	8.348	0.000

CI -> GABB	0.435	0.433	0.061	8.955	0.000

Source: Computed from Smart PLS

III. Specific Indirect Effects

Table 4.11: SPECIFIC INDIRECT EFFECTS

	Original Sample (O)	**Sample mean (M)**	**Standard deviation (STDEV)**	**T statistics (|O/STDEV|)**	**P values**
FC -> EC -> GABB	0.134	0.140	0.053	2.545	0.041
VSB -> EC -> GABB	0.283	0.282	0.069	4.123	0.003
CI -> EC -> GABB	0.261	0.262	0.061	4.307	0.008

Source: Computed from Smart PLS

Total effect means the effect of IV on DV without any mediator. In our research, we proposethe impact of IV on DV through MV (Environmental Concern). Table 4.11 shows the mediating variable-specific indirect effects that FC influences EC and EC influences GABB($P < 0.05$), which means results are significant. Similarly, VSB influences EC and EC influences GABB ($P < 0.05$), which means the results are significant, and CI influences EC and EC influences GABB ($P < 0.05$), which means results are significant. The proposed hypothesis is accepted, highlighting the fact that FC, VSB and CI on GABB do pass through EC.

The next step is to calculate whether Environmental Concern partially or fully mediates the relationship between IV and DV. Full/Complete mediation is when the direct effect isinsignificant and the indirect effect is significant. Partial mediation is when the direct

effectis significant and the indirect effect is also significant. From Table 4.8 (the direct effectis significant, P value < 0.05), Table 4.10 (the specific indirect effect is also significant), which means FC, VSB and CI influence GABB through EC, and there exists partial mediation. The result highlights FC, VSB, and CI influences GABB not entirely through EC, but also FC, VSB and CI directly influence GABB.

IV. Hypotheses Testing

Mediation analysis was performed to assess the mediating role of Environmental Concern (MV) on the link between Fashion Consciousness, Variety Seeking Behavior and Consumer Innovativeness (IV) and Green Apparel Buying Behavior (DV). The results revealed that the total effect of FC on GABB is significant (ß = 0.182, t = 3.776, P < 0.05). With the inclusion of mediating variable EC, the impact of FC on GABB is also significant (ß = 0.048, t = 2.776, P < 0.05). The indirect effect of IV on DV through MV was found significant (ß = 0.134, t = 2.545, P < 0.05). Similarly, the total effect of VSB on GABB is significant (ß = 0.474, t = 8.348, P < 0.05). With the inclusion of mediating variable EC, the impact of VSB on GABB is also significant (ß = 0.191, t = 3.348, P < 0.05). The indirect effect of IV on DV through MV was found significant (ß = 0.823, t = 4.123, P < 0.05), and the total effect of CI on GABB is significant (ß = 0.435, t = 8.955, P < 0.05). With the inclusion of mediating variable EC, the impact of CI on GABB is also significant (ß = 0.174, t = 3.159, P < 0.05). The indirect effect of IV on DV through MV was found significant (ß = 0.261, t = 4.307, P < 0.05). This shows that the mediating variable (EC) partially mediates the relationship between the independent variables (FC, VSB, CI) and the dependent variable (GABB).

Table 4.12: Mediation Analysis

Total Effect			Direct Effect		Indirect Effect				
	Coefficient	**P value**	**Coefficient**	**P value**		**Coefficient**	**SD**	**T value**	**P value**
FC -> GABB	0.182	0.000	0.048	0.000	FC -> EC -> GABB	0.134	0.140	2.545	0.041
VSB -> GABB	0.474	0.000	0.191	0.000	VSB -> EC -> GABB	0.283	0.069	4.123	0.003
CI -> GABB	0.435	0.000	0.174	0.000	CI -> EC -> GABB	0.261	0.023	4.307	0.008

Source: Computed from Smart PLS

V. Model Fitness

The study fits the model fit test, also model fit test indicates that Standardized Root Mean Square Residual (SRMR) values are 0.072, which is less than 0.10 or 0.08 (Sarstedt et al., 2021). This demonstrates that the model is a good fit. The values for SRMR should be equal toor less than 0.08 to address the approximate fit of the model (Henseler & Chin, 2010).

Table 4.13: MODEL FIT

	Saturated model	Estimated model
SRMR	0.07	0.073
d_ULS	4.616	5.098
d_G	0.968	1.004
Chi-square	2842.546	2896.044
NFI	0.655	0.648

Source: Computed from Smart PLS

VI. Testing effect size (f^2)

Effect size f^2 assesses how strongly one exogenous construct contributes to explaining a certain endogenous construct in terms of R^2. Values between 0.02 - 0.15 reflect a weak effect; values between 0.15 – 0.35 reflect a moderate effect; values more than 0.35 reflect a strong effect (Cohen, 2013). Similarly, the effect size test results revealed that f^2 value of FC and EC is 0.018, the f^2 value of CI and EC is 0.066, and the f^2 value of VSB and EC is 0.065, showing the weak effect of EC on FC, CI and VSB. Similarly, the f^2 value of FC and GABB is 0.003, the f^2 value of CI and GABB is 0.037, the f^2 value of VSB and GABB is 0.034, the f^2 value of PPA and GABB is 0.001, the f^2 value of Attitude and GABB is 0.048, and the f^2 value of EC and GABB is 0.061, showing the weak effect of GABB on FC, CI, VSB, PPA, Attitude, and EC.

Table 4.14: f-square Values

	A	CI	EC	FC	GABB	PP	VSB
A					0.048		
CI			0.066		0.037		
EC					0.061		
FC			0.018		0.003		
GABB							
PP					0.001		
VSB			0.065		0.034		

Source: Computed from Smart PLS

VII. Predictive Relevance (Q^2)

When Q^2 values are greater than zero in a structural model, the path model's predictive relevance for a particular construct is shown. The values for predictive relevance (Q^2) reflect that values more than zero can be said to have sufficient predictive relevance. Further predictive relevance test (Q^2) results show that EC Q^2 value is 0.305, showing strong predictive relevance, and GABB Q^2 value is 0.444, showing strong predictive relevance. The authors suggest that the higher the Q^2 value, the higher the predictive relevance. The R^2, f^2, and Q^2 values must be greater than zero to appropriately evaluate the model fit using PLS-SEM (Berki-Kiss & Menrad, 2022).

❖ Comprehensive Interpretation of Results

A comprehensive interpretation of the direct and indirect effects of fashion consciousness, variety-seeking behavior, and consumer innovativeness on green apparel buying behavior among female shoppers, with environmental concern as a mediating variable, has been discussed below. This explanation includes the logic behind the relationships based on theory and relevant consumer behavior insights.

1. Direct Effects Interpretation:

a) Fashion Consciousness → Green Apparel Buying Behavior

Fashion-conscious female consumers are typically attuned to trends, style, and personal image. While fashion consciousness traditionally relates to fast fashion, recent trends show a growing alignment between fashion and sustainability (e.g., eco-chic or sustainable luxury). Therefore, when green apparel is positioned as fashionable, fashion-conscious consumers may directly engage with it.

Reasoning

Fashion no longer contradicts sustainability — instead, it complements it when green apparel is designed with aesthetics in mind (Joy et al., 2012c; Niinimäki, 2010).

b) Variety-Seeking Behavior → Green Apparel Buying Behavior

Variety-seekers crave newness and are often experimental in consumption. Green apparel lines that offer novelty in design, materials (e.g., hemp, bamboo), or eco-labels

appeal to this trait. Thus, these consumers may adopt green apparel for its distinctiveness and novel product experiences.

Reasoning

Green fashion can satisfy the desire for variety through innovation in design, eco-textiles, and brand uniqueness (Baumgartner & Steenkamp, 1996; P. Kumar & Ghodeswar, 2015).

c) Consumer Innovativeness → Green Apparel Buying Behavior

Innovative consumers are early adopters who seek out new, original, or cutting-edge products. Green apparel often represents innovation through sustainable materials, circular design, and ethical production. Therefore, consumer innovativeness positively influences the direct adoption of green apparel.

Reasoning

The novelty and forward-thinking values embedded in green apparel appeal to innovation-seeking individuals (Hirschman, 1980; Jaiswal & Kant, 2018).

2. **Indirect Effects via Environmental Concern (Mediation)**

a) Fashion Consciousness → Environmental Concern → Green Buying

Fashion-conscious consumers who are also aware of the environmental impacts of fast fashion may develop greater environmental concern, which then motivates green buying. This is a value shift driven by cognitive dissonance between looking good and doing good.

Reasoning

As awareness of fashion's ecological cost rises, fashion-conscious individuals may reconcile their values by choosing sustainable alternatives (Thøgersen, 2014; Vermeir & Verbeke, 2008).

b) Variety Seeking → Environmental Concern → Green Buying

Environmentally conscious variety seekers might see green apparel as a fresh, morally satisfying option, combining novelty with value-driven consumption. Thus,

environmental concern mediates and strengthens the effect of variety seeking on behavior.

Reasoning

These consumers are not just seeking variety for excitement, but also want their choices to align with personal ethics Lin & Huang, 2012b; Strack & Deutsch, 2004).

c) Consumer Innovativeness → Environmental Concern → Green Buying

Innovative consumers, upon learning about environmental issues, may become early adopters of sustainable fashion to align innovation with environmental values. Environmental concern thus enhances their motivation to try eco-products.

Reasoning

Innovation and sustainability are converging in fashion. Innovators may be more aware of green options and thus more environmentally conscious (Ajzen, 1991; Biswas & Roy, 2015).

Thus, the model suggests a dual-pathway effect: Direct influence through traits like fashion sense, curiosity, and innovation and Indirect influence through growing environmental concern, which amplifies or activates these traits toward sustainable behavior. This supports the Theory of Planned Behavior (Ajzen, 1991) and Consumer Value Theory (Sheth et al., 1991), which posit that attitudes and perceived values mediate the relationship between personality traits and actual behavior.

4.4 MODERATION EFFECTS ON PLS PATH MODELS

In PLS path modeling, a moderating effect occurs when a construct modifies the direct relationship between two other constructs.

Objective 3: To investigate the moderating effect of demographic variable (age) between environmental concern and green apparel buying behavior.

Ha6: Age plays a role as a moderator between environmental concern and green apparel buying behavior.

To achieve this objective, Slope Analysis has been performed using Smart PLS.

Slope analysis in Smart PLS is a method for examining the nature and direction of interaction effects. It is commonly used to represent the results of a moderator analysis in the form of a simple slope plot. Analyzing age as a moderator between environmental concern and green apparel buying behavior using Slope Analysis in Smart PLS can provide valuable insights.

I. Path Coefficients

From Table 4.13, it can be computed that there is a significant relationship between Age (Moderating Variable) and GABB (DV). The direct effect of Age on Green Apparel Buying Behavior (GABB) is positive and statistically significant (ß = 0.108, t = 3.746, P < 0.05). The results suggest that as Age increases, there is a significant increase in Green Apparel Buying Behavior (GABB). Older individuals are more likely to engage in green apparel buying behavior. Also, there is a significant relationship between EC (Mediating Variable) and GABB (DV). Environmental Concern (EC) has a strong and highly significant positive effect on GABB (ß = 0.236, t = 4.433, P < 0.05), indicating EC leads to a substantial increase in GABB. Individuals with higher environmental concern are significantly more likely to purchase green apparel. The effect size is substantial, meaning EC is a major determinant of green apparel buying behavior. The interaction effect of Age * EC → GABBis significant (ß = 0.010, t = 2.869, P < 0.05). The results indicate that age moderates the relationship between environmental concern and green apparel buying behavior, which varies by age.

Table 4.15: PATH COEFFICIENTS

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Age -> GABB	0.108	0.109	0.039	3.746	0.006
EC -> GABB	0.236	0.235	0.046	4.433	0.000

Age x EC -> GABB	0.010	0.009	0.051	2.869	0.031

Source: Computed from Smart PLS

II. Interpretations from the Graph

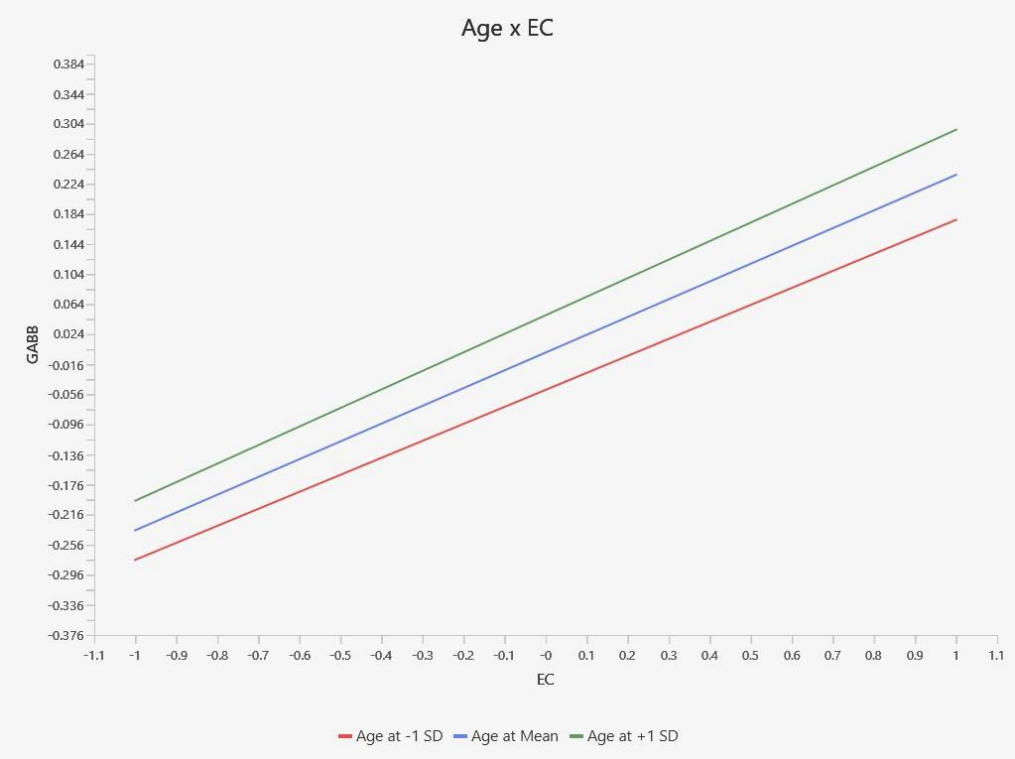
The graph shows three lines representing the interaction between Environmental Concernand GABB at different levels of age:

Red Line (Age at -1 SD): Shows the relationship between EC and GABB for individuals between the ages of 15 – 19 years. The slope is shallower, showing the weaker influence of EC on green apparel buying behavior.

Blue Line (Age at Mean): For individuals between the ages of 20 – 24 years, the slope is steeper than the red line, showing a stronger influence of EC on GABB.

Green Line (Age at +1 SD): For individuals between the ages of 25 – 29 years, the slope is the steepest, indicating that EC has the most significant impact on GABB.

All three lines are upward sloping, indicating that as Environmental Concern (EC) increases, Green Apparel Buying Behavior (GABB) increases regardless of age. However, the green line has the steepest slope, suggesting that individuals between the ages of 25 – 29 years show a stronger positive relationship between EC and GABB comparedto individuals between the ages of 15 – 19 years. In contrast, the red line has a flat slope, implying that the individuals between the ages of 15 – 19 years are less responsive to an increase in EC in terms of their GABB. Therefore, the difference in slopes indicates that Age moderates the relationship between EC and GABB. Specifically, individuals between the ages of 25 – 29 years are more likely to buy green apparel as their environmental concern increases, while individuals between the ages of 15 – 19 years show a weaker response.



Source: Computed from Smart PLS

Figure 4.3: Graph Showing Moderation Analysis

❖ **Comprehensive Interpretation of Results**

A comprehensive interpretation of the moderating effect of age (15–29 years) on the relationship between environmental concern and green apparel buying behavior, including an explanation of the interaction between variables and the reasoning behind it has been discussed below:

1. **Core Relationship: Environmental Concern → Green Apparel Buying Behavior**

Environmental concern reflects an individual's awareness of environmental issues and their willingness to act responsibly. Typically, higher concern translates into higher engagement in eco-friendly behaviors, such as buying green apparel.

Theoretical Support

Theory of Planned Behavior (Ajzen, 1991) — intention is shaped by attitude (e.g., environmental concern) and Value-Belief-Norm Theory (Stern, 2000) — personal norms and beliefs (like concern for the planet) drive pro-environmental behavior.

2. **Moderator: Age (15–29 years)**

While all respondents fall within the youth segment, age sub-groups within 15–29 years often exhibit different psychological and behavioral patterns, which can moderate the strength of the concern-behavior relationship.

❖ **Interpretation by Age Sub-Groups:**

Group 1: Teenagers (15–19 years)

- Environmental concern may exist, but it is still forming.
- Green apparel buying behavior may be limited by financial dependence, peer conformity, and lower perceived control.
- Influenced more by social identity and online trends than deeply internalized environmental values.

Reasoning

While they may express concern, actual behavior may not align due to a lack of autonomy or strong price sensitivity (Biswas & Roy, 2015b; Joy et al., 2012c)**.**

Group 2: Young Adults (20–24 years)

- Typically, college students or early professionals.
- Environmental concern is more cognitively mature and value-driven.
- Increased purchasing power and fashion consciousness.
- Green apparel is both a form of expression and ethical alignment.

Reasoning

This group is highly impressionable yet values-driven. They tend to act on their concern, especially when green options are aesthetically appealing and affordable (Kumar & Ghodeswar, 2015; Lin & Huang, 2012b).

Group 3: Adults (25–29 years)

- In early careers or the family stage.
- Environmental concern is often more internalized and stable.
- However, fashion and environmental priorities may compete with career or economic stress.
- Decision-making becomes pragmatic, so green apparel must be perceived as high value (e.g., durable, cost-effective).

Reasoning

Although concern is strong, action is contingent upon practical utility, quality, and return on investment (Lin & Niu, 2018; Thøgersen, 2014).

3. Moderation Analysis Explained

A moderating effect means that age influences the strength of the relationship between environmental concern and green apparel buying behavior.

- Among 20–24-year-olds, the relationship is strongest - environmental concern highly predicts green buying.
- Among 15–19-year-olds, the relationship is weaker — environmental concern does not always convert into action.
- Among 25–29-year-olds, the relationship is moderate — environmental concern influences behavior when combined with utility and affordability.

Hence, age (within 15–29 years) acts as a moderator in the relationship between environmental concern and green apparel buying behavior due to differences in

financial independence, value internalization, fashion orientation, and purchase autonomy.

4.5 Discussion

The results portray that the t-statistics of A -> GABB is greater than the minimum acceptable limit of 1.96, and the P value is less than 0.05 ($t = 3.776$, $P < 0.05$). The results are in support of hypothesis Ha1 i.e. there is a significant effect of attitude on green apparel buying behavior. Results about the impact of attitude on green apparel buying behavior (GABB) imitate the prior research findings while adding new information through analysis. The results obtained from the analysis stated that green apparel buying behavior is positively affected by attitude. In the previous studies, the findings revealed that consumer attitude is significantly positively associated with intentions to buy green apparel and positively influences green buying intention and also has a positive influence on green consumer behavior (Kamalanon et al., 2022b; Rausch & Kopplin, 2021). Therefore, the t-statistics of PPA -> GABB is also greater than the minimum acceptable limit of 1.96, and the P value is less than 0.05 ($t = 2.736$, $P < 0.05$). The results are in support of the hypothesis Ha2 i.e. there is a significant effect of physical product attributes on green apparel buying behavior. Results show that the impact of physical product attributes on green apparel buying behavior (GABB) imitates the prior research findings while adding new information through analysis. The results obtained from the analysis stated that green apparel buying behavior is positively affected by physical product attributes. In the previous studies, findings revealed that physical product attributes positively influence green apparel buying behavior (Carpenter & Moore, 2010; Lestari & Nita, 2021). Thus, on the basis of P values, the results of the study prove that physical product attributes and attitude have a significant impact on green apparel buying behavior and on the basis of mean value, attitude is having a greater impact on green apparel buying behavior than physical product attributes. Hence, hypotheses Ha1 and Ha2 are accepted.

Further, results found that the mediating variable Environmental Concern 'partially' mediates the relationship between fashion consciousness, variety seeking behavior and consumer innovativeness (Independent Variables) and green apparel buying behavior (Dependent Variable). This means FC, VSB and CI (Independent Variables) and GABB

(Dependent Variable) have a significant relationship with or without the presence of EC (Mediating Variable). These findings suggest that youth female shoppers buying green apparel as they are more fashion conscious, they are seeking variety in green apparel, and they tend to buy green apparel more often than others. They don't need to buy green apparel, mostly because they are concerned for the environment, but they will buy it as they will buy as they are more fashion-conscious. The importance of EC as an important MV, a study explores the green apparel buying behavior among youth females. Hence, hypothesis Ha3, Ha4, and Ha5 are accepted.

The result suggests that Age and Environmental Concern (EC) both have positive effects on Green Apparel Buying Behavior (GABB), but EC plays a much more substantial role. While Age moderates the relationship between Environmental Concern and GABB, with individuals between the ages of 25 – 29 years being more responsive to environmental concern. As age increases, their environmental concern has a stronger positive effect on their likelihood of buying green apparel. This interaction suggests that individuals between the age 25 – 29 years are more responsive to environmental concerns when it comes to their buying behavior. The significant interaction effect between age and EC shows that the relationship between EC and GABB changes depending on an individual's age. Hence, age is a significant moderating variable that amplifies the influence of environmental concern on green apparel buying behavior, with an increase in age, individuals are more likely to incorporate their environmental concerns into buying decisions. While younger individuals still engage in green buying behavior, their decisions are less influenced by environmental concern, and other factors may play a larger role. This moderation analysis contributes to a better understanding of how different age groups respond to environmental issues. Hence, hypothesis Ha6 is accepted.

Table 4.16: HYPOTHESES STATUS

Hypothesis	Relationship between variables	Accepted/ Rejected
Ha1	Physical Product Attributes have a significant effect on Green Apparel Buying Behavior.	Accepted
Ha2	Attitude has a significant effect on Green Apparel Buying Behavior.	Accepted
Ha3	Environmental Concern plays the role of a mediator between Fashion Consciousness and Green Apparel Buying Behavior.	Accepted
Ha4	Environmental Concern plays the role of a mediator between Variety Seeking Behavior and Green Apparel Buying Behavior.	Accepted
Ha5	Environmental Concern plays the role of a mediator between Consumer Innovativeness and Green Apparel Buying Behavior.	Accepted
Ha6	Age plays a role as a moderator between environmental concern and green apparel buying behavior.	Accepted

CHAPTER 5

FINDINGS, CONCLUSION AND SUGGESTIONS

The research considers the consumer-centric aspects, such as green apparel buying behavior among youth females by studying their opinions. To examine the buying behavior of youth females, it is necessary to study the relationship between factors affecting GABB. It is a study performed on youth females aged between 15 - 29 years in Tier-II cities of Uttar Pradesh. The study uses primary data sources. A sample of 500 youth female respondents was selected.

The study has been conducted through a well-designed instrument to obtain useful results and complete analysis. The instrument contains 42 statements, out of six statements of FC, six statements of CI, six statements of VSB, six statements of EC, six statements of PPA and six statements of Attitude. Hence, the structured questionnaire has been used to gather the primary data from youth females. To verify the authenticity of the questionnaire, reliability and internal consistency were checked. All scales and sub-scales produced internal consistency as per results from Cronbach's Alpha. The designed questionnaire has been further tested for reliability and validity through CVR and Pilot testing.

Based on data analysis performed in Chapter 4, focused on the consolidation and compilation of the results. This chapter provides a summary of findings on the basis of identified results and finally presents the conclusions. This chapter also discusses the limitations of the study and presents the agenda for future research.

The study has been conducted to achieve the following objectives:

1. To investigate the relationship between physical product attributes and attitude on green apparel buying behavior.
2. To examine the direct and indirect impact of fashion consciousness, variety seeking behavior and consumer innovativeness through environmental concern on green apparel buying behavior among female shoppers.
3. To investigate the moderating effect of demographic variable (age) between environmental concern and green apparel buying behavior.

GABB aims to achieve long-term goals, environmental care, a healthy lifestyle for consumers, and growth for businesses. It was felt necessary to perform the research on youth female consumers buying green apparel instead of conventional apparel for protecting the environment, or they are more fashion-conscious. The COVID-19 pandemic has made everyone realize how important it is to implement sustainable practices in our daily lives. Every business must implement sustainable activities and maintain them in the long run. These activities will not only help businesses but also benefit consumers and the environment.

5.1 Objective-wise : Results and Findings

5.1.1 Physical Product Attributes have a significant effect on Green Apparel Buying Behavior.

The hypothesis evaluates that physical product attributes have a significant positive effect on green apparel buying behavior. The results revealed that physical product attributes (ß = 0.023, t = 2.736, P > 0.05) have a significant impact on green apparel buying behavior.

The results obtained from the analysis stated that green apparel buying behavior is positively affected by physical product attributes. In the previous studies, findings revealed that physical product attributes positively influence green apparel buying behavior.

5.1.2 Attitude has a significant effect on Green Apparel Buying Behavior.

The hypothesis evaluates that attitude has a significant positive impact on green apparel buying behavior. The results revealed that attitude (ß = 0.0210, t = 3.776, P < 0.05) have a significant impact on green apparel buying behavior.

The results obtained from the analysis stated that green apparel buying behavior is positively affected by attitude. In the previous studies, the findings revealed that consumer attitude has a significant positive association with intentions to buy green apparel and positively influences green buying intention and also has a positive influence on green consumer behavior.

5.1.3 Environmental concern mediates the relationship between fashion consciousness and green apparel buying behavior.

In the research model, environmental concern is plays the role of a mediator between fashion consciousness and green apparel buying behavior. The study found a significant relationship between the three constructs (FC-EC-GABB).

It can be evaluated that environmental concern partially mediates the relationship between FC and GABB. Based on the mean values between the constructs, it was evaluated that the direct effect FC > GABB (0.048) is less than the indirect effect FC > EC > GABB (0.134), which signifies that EC is playing the role of a strong mediator.

The results indicate that the direct effect of fashion consciousness on green apparel buying behavior is weaker than the indirect effect through environmental concern as a mediator. This suggests that fashion consciousness has a direct influence on green apparel buying decisions of youth female consumers, but they buy green apparel as they are more concerned about the environment.

Although environmental concern partially mediates the relationship, it plays a significant role in explaining the overall effect of FC on GABB. Consumers who are highly fashion-conscious are more likely to buy green apparel primarily because of their fashion orientation, and also to a great extent due to their environmental concerns.

This indicates that promoting green apparel to fashion-conscious consumers might be more effective by emphasizing the style and trendlines of these products, but focusing solely on their environmental attributes will be much effective.

Hence, while EC plays the role of MV, it does not entirely explain the strong direct relationship between FC and GABB, but it partially mediates the relationship between FC and GABB.

5.1.4 Environmental concern mediates the relationship between variety-seeking behavior and green apparel buying behavior.

In the research model, environmental concern plays the role of a mediator between variety seeking behavior and green apparel buying behavior. The study found a significant relationship between the three constructs (VSB-EC-GABB).

It can be evaluated that environmental concern partially mediates the relationship between VSB and GABB. Based on the mean values between the constructs, it was evaluated that the direct effect VSB > GABB (0.191) is more than the indirect effect VSB > EC > GABB (0.283), which signifies that EC is playing the role of a strong mediator.

The results revealed that the direct effect of variety-seeking behavior on green apparel buying behavior is weaker than the indirect effect through environmental concern as a mediator. This suggests that variety seeking behavior has a direct influence on green apparel buying decisions of youth female consumers, which indicates that individuals who like exploring new and diverse products are more likely to buy green apparel as they are concerned about the environment.

Although EC partially mediates the relationship between VSB and GABB, its impact is relatively strong compared to the direct effect, indicating that it is the primary factor driving variety-seekers to choose green apparel. Youth females with a strong desire for variety may be encouraged to buy green apparel for its novelty, unique style, or different features, but they are more likely to buy green apparel as they have a strong commitment towards sustainability.

This implies that to attract variety-seeking consumers, marketers should emphasize the originality and diversity of green apparel collections, such as new designs, limited editions, or exclusive product lines, and focus more on eco-friendly attributes.

Hence, while EC plays a role of MV and impacts buying decisions to a greater extent, it does have a significant effect on the strong direct link between VSB and GABB, and it partially mediates the relationship between VSB and GABB.

5.1.5 Environmental concern mediates the relationship between consumer innovativeness and green apparel buying behavior.

In the research model, environmental concern plays the role of a mediator between consumer innovativeness and green apparel buying behavior. The study found a significant relationship between the three constructs (CI-EC-GABB).

It can be evaluated that environmental concern partially mediates the relationship between CI and GABB. Based on the mean values between the constructs, it was evaluated that the direct effect CI > GABB (0.174) is more than the indirect effect CI > EC > GABB (0.261), which signifies that EC is playing the role of a strong mediator.

The findings revealed that the direct effect of consumer innovativeness on green apparel buying behavior is weaker than the indirect effect through environmental concern as a mediator. This suggests that CI has a significant and direct influence on green apparel buying, indicating that consumers who are more open to new ideas and are eager to try new products are buying green apparel, but they are more likely to buy green apparel due to their environmental concerns.

Although EC partially mediates the relationship between CI and GABB, it has a maximum contribution in comparison to the direct effect. This suggests that environmental concern is the main reason for innovative youth female consumers who are attracted to green apparel. Also, they are likely to be drawn to green apparel because it symbolizes a new and cutting-edge fashion concept, which aligns with their preference for innovation and individuality.

This implies that strategies targeting innovative consumers should emphasize green apparel's innovative qualities, such as sustainable practices, creative designs, and unique material, also focusing on environmental benefits.

Hence, while EC plays the role of MV and has a significant influence on innovative consumers decisions, it does significantly affect the strong direct link between CI and GABB, and it partially mediates the relationship between CI and GABB.

5.1.6 Age plays a role as a moderator between environmental concern and green apparel buying behavior.

In the research model, age plays the role of a moderator between environmental concern and green apparel buying behavior. The study found a significant relationship between the three constructs (Age-EC-GABB).

The direct effect of Age on Green Apparel BuyingBehavior (GABB) is positive and statistically significant (ß = 0.108, t = 3.746, P < 0.05). Environmental Concern (EC)

has a strong and highly significant positiveeffect on GABB (ß = 0.236, t = 4.433, P < 0.05) indicating EC leads to a substantial increase in GABB. The interaction effect of Age * EC → GABB is significant (ß = 0.010, t = 2.869, P < 0.05).

Result suggests that Age and Environmental Concern (EC) both have positive effects on Green Apparel Buying Behavior (GABB), but EC plays a much more substantial role. While Age moderates the relationship between Environmental Concern and GABB, with individuals between the ages of 25 – 29 years being more responsive to environmental concern.

As age increases, their environmental concern has a stronger positive effect on their likelihood of buying green apparel. This interaction suggests that individuals between the ages of 25 – 29 years are more responsive to environmental concerns when it comes to their buying behavior. The significant interaction effect between age and EC shows that the relationship between EC and GABB changes depending on an individual's age.

Hence, age is a significant moderating variable that amplifies the influence of environmental concern on green apparel buying behavior, with an increase in age, individuals being more likely to incorporate their environmental concerns into buying decisions. While younger individuals still engage in green buying behavior, their decisions are less influenced by environmental concern, and other factors may play a larger role. This moderation analysis contributes to a better understanding of how different age groups respond to environmental issues.

5.2 Conclusion

The study "An Empirical Study on Green Apparel Buying Behavior Among Youth Females with Special Reference to Uttar Pradesh" provides in-depth insights into the factors influencing green apparel buying behavior among youth females in Tier-II cities of Uttar Pradesh. The research finding highlights several significant variables in determining green apparel buying behavior among youth females, including fashion consciousness, variety seeking behavior, consumer innovativeness, attitude and physical product attributes, with environmental concern as a mediator and demographic variable (age) as a moderator.

Moreover, the present study is varied out with three objectives. The first objective is related to assessing the relationship between physical product attributes and attitude on green apparel buying behavior. The second objective focuses on measuring the direct and indirect effect of fashion consciousness, variety seeking behavior, and consumer innovativeness through environmental concern (Mediator) on green apparel buying behavior. The third objective examines the moderating effects of demographic variable (age) between environmental concern and green apparel buying behavior.

To achieve the above objectives, an empirical study has been conducted. The data has been collected from youth female shoppers residing in Tier-II cities of Uttar Pradesh. Smart PLS has been used to validate the model by using SEM techniques. Besides this, certain questions have been framed to know the demographic profile of the youth female respondents. Then, the analysis has been done as per the descriptive statistics, reliability test, validity test, measurement model assessment, structural model assessment, testing of hypothesis, mediation testing and moderation testing. The descriptive statistics discussed the demographic profile of the youth female respondents. Consequently, the latent variables and the manifest variables were validated. The measurement model fulfilled the condition of one-dimensionality, Internal Reliability, Convergent Validity and Discriminant Validity measures. At the end, the hypothesized relationship among the latent constructs was determined with the help of the structural equation modelling technique. The mediation and moderation testing was executed in line with the mediation and moderation analysis proposed by (Baron & Kenny, 1986).

The study demonstrates that attitude and physical product attributes have a significant impact on green apparel buying behavior. On the basis of mean values, attitude has more impact on green apparel buying behavior than physical product attributes. This implies that youth female consumers attitude towards green apparel, including beliefs, perceptions, and overall disposition, have a greater impact on buying decisions than tangible product features like fabric quality, color, design, and durability. Similarly, fashion consciousness, variety seeking behavior and consumer innovativeness have a significant direct impact on green apparel buying behavior, implying that youth female consumers are strongly motivated by the style, novelty, and trendlines of eco-friendly

clothing options. Although environmental concern is an influencing factor, it does not totally mediate the relationship between fashion consciousness, variety seeking behavior, consumer innovativeness and green apparel buying behavior. This suggests that providing messages related to only sustainability is not sufficient for this demographic; instead, green apparel must be positioned as attractive and diversified to attract fashion-conscious youth.

Furthermore, consumer innovativeness emerges as a significant predictor of green apparel adoption. Innovative youth females often embrace green apparel as a forward-thinking and experimental decision, showing their eagerness to adopt new trends. However, their decisions are driven more by the novelty of the concept than by strong pro-environmental attitudes. Moreover, it was confirmed from the mediation analysis that the model is partially mediated. The study's findings suggest that while environmental concern serves as a partial mediator, it is not the primary motivator for green apparel buying behavior.

The study also reveals various demographic and psychographic factors that differentiate green apparel customers from non-buyers. For instance, youth females who are more aware of green apparel, global fashion trends, buy green apparel, and have a higher level of education are more likely to adopt green apparel. Furthermore, peer groups and social norms emerge as significant determinants, indicating that green apparel buying is not only influenced by individual decisions but also by the social context and perceived societal expectations.

The study contributes significantly to understanding youth female consumer behavior in the context of green apparel, particularly in the underexplored region of Uttar Pradesh, which represents a mix of traditional and modern values. The study highlights the importance of targeted marketing strategies that resonate with the specific preferences of youth females in this region, such as promoting green apparel through influencer marketing, fashion blogs, and social media campaigns that emphasize eco-friendly fashion as a status and style symbol. The study findings are useful for marketers and policymakers aiming to promote sustainable fashion among youth female consumers in Uttar Pradesh, who should focus on combining eco-friendly components with appealing fashion attributes. This includes emphasizing new designs, variety, and

aligning with current fashion trends to make green apparel more attractive. Hence, the study concludes that green apparel buying among youth females in Uttar Pradesh is significantly influenced by style, innovation, and the desire for variety, with environmental concerns playing a supporting but not fundamental role. Effective promotion techniques should therefore combine aesthetic appeal with sustainability, making green apparel not just an ethical choice but also a fashionable option for youth consumers.

5.3 Research Implications

The research study has several important implications for marketers, policymakers and researchers seeking to promote green apparel among youth females in Uttar Pradesh. Understanding the complex interplay of factors such as attitude, fashion consciousness, variety-seeking behavior, and consumer innovativeness provide useful insights for both the industry and academia.

5.3.1 Marketing Implications

The marketing implications of the present study are:

1. **Position Green Apparel as Fashionable and Trendy:** Given the high influence of fashion consciousness on green apparel buying, marketers should promote green apparel as stylish, chic, and in line with current fashion trends. To appeal fashion-conscious youth, emphasize sustainability while highlighting the aesthetic and trendy qualities of green apparel.
2. **Leverage Social Media and Influencers:** Youth female consumers in Uttar Pradesh are becoming more influenced by social media trends and influencer endorsements. Companies should work with local fashion influencers and celebrities who can position green apparel as both fashionable and ecologically conscious, hence increasing the product's appeal.
3. **Focus on Product Variety and Innovation:** With variety-seeking behavior at the forefront, brands should focus on expanding green apparel collections by offering a wide range of designs, colors, and creative styles. Limited-edition collections, new arrivals, and exclusive designs can generate excitement and appeal to consumers who value diversity.

4. **Emphasize Attitudinal Shifts:** The stronger impact of consumer attitude suggests that marketing initiatives should focus on fostering a positive attitude about green apparel by emphasizing its environmental benefits, social responsibility, and alignment with youth values. Using storytelling strategies that are relevant to personal beliefs and social causes can improve the emotional appeal of green apparel.
5. **Develop Unique Brand Positioning:** Brands should position themselves as leaders in sustainable fashion by incorporating ethical production, environmentally friendly materials, and transparent supply chains into their branding. This strategy would appeal to young consumers who are becoming more socially conscious and want to support firms that have authentic sustainability credentials.

5.3.2 Retail and Merchandising Implications

The retail and merchandising implications are:

1. **Create Green Fashion Zones:** Retailers may consider creating specialized green apparel zones in their stores that emphasize both sustainability and fashion. Placing green apparel among popular fashion items can enhance its visibility and integrate it into everyday fashion choices.
2. **Personalization and Customization:** Offering customization choices (for example, personalized eco-friendly patterns or DIY upcycling kits) can appeal to the innovativeness and originality of youth females, making green apparel a more engaging and attractive option.

5.3.3 Policy Implications

The policy implications are:

1. **Educational Campaigns to Enhance Environmental Awareness:** Since environmental concern is a partial mediator, targeted educational initiatives can help in enhancing the role of sustainability in buying decisions. Workshops, awareness campaigns, and sustainability seminars at colleges and universities can help in building a more favorable attitude towards green apparel.

2. **Incentives for Sustainable Fashion Startups:** Policymakers should provide tax benefits, subsidies, and grants to encourage local companies to innovate in the green apparel field. This would not only promote green fashion but also provide job opportunities for Uttar Pradesh's youth.
3. **Promoting Sustainable Consumption through Public Figures:** The government can work with well-known public personalities and social media influencers to spread the message of sustainable fashion. Using relatable figures can have a greater impact on youth and help in developing green apparel as a popular fashion choice.

5.3.4 Academic Implications

The academic implications are:

1. **Expanding Theoretical Frameworks:** The study contributes to the existing literature on consumer behavior and sustainability by examining the impact of psychographic variables (example, fashion consciousness, variety-seeking behavior) along with attitude and environmental concern. Future research can expand on this by investigating other psychological factors such as self-identity, peer influence, and lifestyle, in the context of green fashion consumption.
2. **Regional Considerations:** The focus on youth females in Uttar Pradesh emphasizes the region's distinct socio-cultural and economic aspects that influence green apparel consumption. Researchers can replicate the study in other states or rural areas to better understand regional differences and develop more targeted marketing and policy strategies.
3. **Incorporating Longitudinal Analysis:** Future research can use longitudinal data to investigate how attitude, fashion trends, and environmental awareness evolve, influencing green apparel buying behavior. This would provide a better knowledge of how consumer preferences shift in response to changing fashion trends and sustainability concerns.

Finally, this thesis provides valuable insights into the motivations, barriers, and drivers of green apparel buying behavior among youth females in Uttar Pradesh. Companies that link their product offers and marketing tactics with fashion motivations, variety

preferences, and sustainability values can effectively cater to this expanding market segment and contribute to the growth of sustainable fashion in India.

5.4 Recommendations of the Study

Based on the findings and implications of the study, the following recommendations are proposed for marketers, policymakers, and researchers to effectively promote and enhance green apparel buying behavior among youth females in Uttar Pradesh. These recommendations are focused on strategies for fostering a positive attitude, leveraging fashion consciousness, and increasing product appeal in this unique demographic segment.

5.4.1 For Marketers and Brands

The recommendations for marketers and brands are:

1. **Highlight Fashion and Aesthetic Appeal Alongside Sustainability**

Since fashion consciousness significantly influences green apparel buying behavior, marketers should design campaigns that emphasize both the style and sustainability of green clothing. Using catchy taglines, promoting eco-friendly collections at major fashion events, and aligning green apparel with current fashion trends can attract youth females who prioritize fashion.

2. **Develop Product Variety and Innovative Designs**

The influence of variety-seeking behavior, green apparel brands should launch different product lines featuring new styles, patterns, and seasonal collections. Providing choices that satisfy different tastes and preferences will increase product appeal and encourage repeat purchases.

3. **Create Brand Associations with Youth Identity**

Youth in Uttar Pradesh are inclined to respond to brands that reflect their identity and beliefs. Creating a brand identity that reflects youth values like individualism, social responsibility, and creativity can help improve the emotional connection with customers. Campaigns can highlight how green apparel choices reflect personal style and societal awareness.

4. **Utilize Digital Platforms and Influencer Marketing**

Using social media platforms (such as Instagram, YouTube, and Pinterest) and engaging with local influencers will help in promoting the green apparel. Influencer collaborations, fashion blogs, and digital storytelling techniques should be used to demonstrate how green apparel can be integrated into everyday fashion while aligning it with eco-friendly lifestyles.

5. **Focus on Consumer Education and Awareness**

To strengthen the role of environmental concern in promoting green apparel consumption, brands should invest in consumer education initiatives that emphasize the environmental benefits of green apparel. Using narratives about how sustainable fashion helps the environment can increase the perceived value of green products.

6. **Offer Customization and Personalization**

Providing opportunities for personalization, such as customized eco-friendly prints, or DIY styling kits, can increase the appeal of green apparel to youth consumers who value originality and individuality. This approach emphasizes their innovative nature while strengthening the emotional connection to the product.

7. **Promote Eco-Friendly Production Practices**

Highlighting the ethical and environmentally friendly production techniques (example: organic materials, water-saving technology, fair labor standards) behind green apparel can help to establish trust and authenticity. Using clear marketing messages about sustainability practices would strengthen the brand's commitment to environmental protection, making it more appealing to socially conscious youth.

5.4.2 For Retailers

The recommendations for retailers are:

1. **Enhance In-Store and Online Experiences**

Create specialized green apparel sections in physical stores and online shopping platforms, ensuring these sections are visually appealing and focusing on sustainability

with style. Interactive elements such as eco-friendly product stories, digital kiosks, and virtual try-on features can enhance the shopping experience.

2. **Organize Green Fashion Events**

Organize in-store events, workshops, and pop-up stores to promote eco-friendly fashion. Events such as sustainable style sessions, DIY workshops, and upcycling demos can attract youth females and create a community around sustainable fashion.

5.4.3 For Policymakers and NGOs

The recommendations for policymakers and NGOs are:

1. **Promote Sustainability Through Educational Institutions**

Collaborate with educational institutions to incorporate sustainability themes into the curriculum, encouraging youth females to adopt eco-friendly fashion choices from an early age. Workshops, awareness seminars, and campus activities focused on sustainable fashion can help to promote an eco-conscious consumer culture.

2. **Support Local Green Apparel Entrepreneurs**

Provide financial incentives, training, and mentorship to local startups and entrepreneurs working in sustainable fashion. This can help to build local green apparel firms in Uttar Pradesh, which will benefit both economic development and environmental sustainability.

3. **Develop Certifications and Eco-Labels**

Implement certification programs and eco-labeling procedures to verify the sustainability claims of apparel brands. This will help in building the consumer trust and make it easier for youth consumers to find authentic green apparel options.

4. **Promote Green Apparel as a Socially Desirable Choice**

Collaborate with public figures, celebrities, and social media influencers to promote green apparel as a socially responsible and desirable lifestyle choice. Incorporating sustainability into public campaigns can help build favorable social norms regarding green apparel buying.

5.4.4 For Researchers and Academic

The recommendations for researchers and academics are:

1. **Explore Regional Differences in Green Apparel Buying Behavior**

Conduct comparative research of youth females in Uttar Pradesh and other regions to understand how cultural, social and economic aspects influence green apparel buying. This can provide a deeper understanding of regional variations and help in developing location-specific strategies.

2. **Examine Longitudinal Shifts in Consumer Attitudes**

Future research explores long-term changes in youth female attitude towards green apparel, taking into consideration factors such as changing fashion trends, environmental events, and social movements. Longitudinal research studies can reveal trends in buying behavior over time.

3. **Investigating the Role of Peer Influence and Social Identity**

Since youth females are often influenced by peer groups and social norms, more studies should be conducted to investigate how peer influence, social identity, and group dynamics influence green apparel buying behavior, particularly in the context of youth subcultures and fashion communities.

Hence, these recommendations aim to increase the promotion, adoption, and acceptability of green apparel among youth females in Uttar Pradesh by addressing both psychological factors and practical considerations. By implementing these strategies, brands, retailers, policymakers, and researchers can contribute to the growth of sustainable fashion in the region, encouraging an eco-conscious buying culture that resonates with the changing values and expectations of youth female consumers.

5.5 Limitations of the Study

Like any research endeavor, this study has certain limitations that must be acknowledged. Understanding these limitations provides clarity on the scope of the findings and helps identify areas for future research improvement. The key limitations of the present study are as follows:

1. The study only included youth females from Uttar Pradesh, which may limit the generalizability of the findings to other regions. Consumer attitude and behavior may differ significantly in other parts of India due to cultural differences, economic conditions, and fashion preferences. As a result, the findings may not accurately represent the green apparel buying behavior of youth females in other states or countries.
2. The sample only includes youth female consumers, excluding other demographic groups such as male consumer, older adults, or consumers from different socio-economic backgrounds. Due to limited demographic focus, the findings are limited to youth females and do not represent the broader range of green apparel buying behavior.
3. The study is cross-sectional, capturing data at a single point in time. Other studies can use a longitudinal study to understand how green apparel buying behavior changes over time.
4. While the study considers the influence of physical product attributes on green apparel buying behavior, it does not go into specific product-related factors such as price sensitivity, quality perception, or perceived durability. These factors may have a significant impact on buying behavior and should be investigated further in future research.
5. The study focuses on individual factors such as attitude, fashion consciousness, and consumer innovativeness, but it does not take into account the role of peer influence, social norms, and family dynamics in shaping green apparel buying behavior. Since youth consumers are highly influenced by their social groups, including these variables may provide a more comprehensive view of green apparel adoption.
6. The sample includes youth female respondents from Tier-II cities. Future research can include respondents from Tier-III cities. As the sample is collected from malls, further respondents can be sourced from specific colleges, universities, or urban centers in future studies.

By acknowledging these limitations, the study sets the groundwork for future researchers to build on and address these gaps. Understanding the study's limitations

helps to contextualize its contributions and encourages further investigation of green apparel buying behavior across diverse consumer segments and regional contexts.

5.6 Scope for Future Research

The present research was carried out on youth female consumers living in Tier-II cities of Uttar Pradesh. The study identified the factors that influence the buying behavior of youth females in the selected Tier-II cities of Uttar Pradesh. Future research can focus on Tier-III cities of Uttar Pradesh. This study focuses on youth females; future research could explore other demographic groups, such as males, older adults, or individuals from different socio-economic backgrounds.

Future research could extend the scope to other regions in India or conduct cross-cultural studies to explore whether similar factors influence green apparel consumption in different cultural and economic contexts. Rural-urban comparisons would provide insights into regional variations in consumer behavior toward green apparel. Also, future research could examine the influence of digital platforms and social media on green apparel buying behavior.

BIBLIOGRAPHY

3DLOOK. (2023). *Sustainable Fashion Trends in 2024: Ideas for Apparel Retailers*. https://3dlook.ai/content-hub/sustainable-fashion-trends-to-watch-in-2024/

Abbas, Y., Javed, T., & Nasir, A. (2024). Effect of Social Norms and Psychological Factors on Consumer Green Buying Intentions: The Mediating Role of Personal Norms an Entrepreneurial Perspective. *Journal of Entrepreneurship and Business Venturing*, *4*(1), 192–216. https://doi.org/10.56536/JEBV.V4I1.85

Abraham-Murali, L., & Littrell, M. A. (1995). Consumers Conceptualization of Apparel Attributes. *Clothing and Textiles Research Journal*, *13*(2), 65–74. https://doi.org/10.1177/0887302X9501300201;WGROUP:STRING:PUBLICATION

Acosta-Ponce, W., Kazim, S., Jaheer Mukthar, K. P., Villanueva-Calderón, J., Ramirez, E. H., & Singh, J. K. (2024). A Study on the Impact of Green Branding on Consumer Buying Behaviour with Respect to the Purchase of Apparel. *Studies in Systems, Decision and Control*, *515*, 639–654. https://doi.org/10.1007/978-3-031-48479-7_54

Adidas Group. (2021). *"Sustainability Strategy."* https://www.adidas-group.com/en/

Agrawal, S., & Pandey, A. C. (2024). Impulse Buying Intentions of Gen Z's Consumers From Hedonic Shopping Perspective for Apparels. *Apex Journal of Business and Management*, *2*(2), 139–149. https://doi.org/10.61274/apxc.2024.v02i01.011

Al Kurdi, B., Nuseir, M. T., Alshurideh, M. T., Alzoubi, H. M., AlHamad, A., & Hamadneh, S. (2024). The Impact of Social Media Marketing on Online Buying Behavior via the Mediating Role of Customer Perception: Evidence from the Abu Dhabi Retail Industry. *Studies in Big Data*, *117*, 431–449. https://doi.org/10.1007/978-3-031-31801-6_26

Alanadoly, A., & Salem, S. (2022). Fashion involvement, opinion-seeking and product variety as stimulators for fashion e-commerce: an investigated model based on S-O-R model. *Asia Pacific Journal of Marketing and Logistics*, *34*(10), 2410–2434. https://doi.org/10.1108/APJML-06-2021-0447/FULL/XML

Albarracin, D., Zanna, M. P., Johnson, B. T., & Tarcan Kumkale, G. (2024). *Attitudes: Introduction and Scope*.

Alzubaidi, H., Slade, E. L., & Dwivedi, Y. K. (2021). Examining antecedents of consumers pro-environmental behaviours: TPB extended with materialism and innovativeness. *Journal of Business Research*, *122*, 685–699. https://doi.org/10.1016/J.JBUSRES.2020.01.017

Aman, A. (2011). *The influence of environmental knowledge and concern on green purchase intention. The role of attitude as mediating variable.*

Anand, A., & Sekhri, S. (2024). Awareness and Perception of Traditional Textiles among Indian Urban Youth. *IIS Univ.J.A*, *13*(3), 296–310.

Anokhi. (2020). *"Handcrafted Fashion and Textiles"* . https://www.anokhi.com/

Arora, N., Gupta, M., & Dharwal, M. (2023). *Fluctuating Attitudes of Target Consumers for Sustainable Fashion Markets Across India*. 193–219. https://doi.org/10.1007/978-3-031-37060-1_9

Ayu, I., Indriani, D., Rahayu, M., & Hadiwidjojo, D. (2019). The Influence of Environmental Knowledge on Green Purchase Intention the Role of Attitude as Mediating Variable. *International Journal of Multicultural and Multireligious Understanding*, *6*(2), 627–635. https://doi.org/10.18415/IJMMU.V6I2.706

Bai, Y., Chen, J., & Geng, L. (2024). Beyond buying less: A functional matching perspective on sustainable fashion product purchasing. *Journal of Environmental Psychology*, *95*, 102283. https://doi.org/10.1016/J.JENVP.2024.102283

Bakış, S., & Kitapçı, H. (2023). Why do consumers purchase green clothing? Investigating symbolic meanings beyond social status and the role of consumer mindset. *Journal of Fashion Marketing and Management*, *27*(4), 710–738. https://doi.org/10.1108/JFMM-02-2022-0032/FULL/XML

Balasubramanian, M., & Sheykhmaleki, P. (2024). Comprehending the Consumer Behavior toward Sustainable Apparel. *Sustainability 2024, Vol. 16, Page 8026*, *16*(18), 8026. https://doi.org/10.3390/SU16188026

Baron, R. M., & Kenny, D. A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. In *Journal of Personality and Social Psychology* (Vol. 51, Issue 6).

Baumgartner, H., & Steenkamp, J. B. E. M. (1996). Exploratory consumer buying behavior: Conceptualization and measurement. *International Journal of Research in Marketing*, *13*(2), 121–137. https://doi.org/10.1016/0167-8116(95)00037-2

Becerra, L. (2018). *Conscious Consumerism: A design process for stylish Conscious Consumerism: A design process for stylish sustainable apparel sustainable apparel*. https://scholarworks.wmich.edu/honors_theses/3056

Bhaane. (2020). *"Minimalist and Sustainable Clothing."* https://www.bhaane.com/

Bhaduri, G., & Ha-Brookshire, J. E. (2011). Do transparent business practices pay? Exploration of transparency and consumer purchase intention. *Clothing and Textiles Research Journal*, *29*(2), 135–149. https://doi.org/10.1177/0887302X11407910

Biswas, A., & Roy, M. (2015). Green products: an exploratory study on the consumer behaviour in emerging economies of the East. *Journal of Cleaner Production*, *87*(1), 463–468. https://doi.org/10.1016/J.JCLEPRO.2014.09.075

Biswas, A., & Roy, M. (2016). *A Study of Consumers Willingness to Pay for Green Products*. https://doi.org/10.12720/joams.4.3.211-215

BOHECO. (2020). *"B Label – Hemp Fashion."* https://boheco.com/

Brough, A. R., Wilkie, J. E. B., Ma, J., Isaac, M. S., & Gal, D. (2016). The green-feminine stereotype and its effect on sustainable consumption. *Journal of Consumer Research*, *43*(4), 567–582. https://doi.org/10.1093/JCR/UCW044

Brown Living. (2024). *India's Best Sustainable Brands List | Brown Living*. https://brownliving.in/pages/shop-by-brand?srsltid=AfmBOopiJkGUxo6zEHx-sUdrSov3fWB5ACQfk0J6NawBIrNlzqK3npxC

Brydges, T., Retamal, M., & Hanlon, M. (2020). Will COVID-19 support the transition to a more sustainable fashion industry? *Sustainability: Science, Practice and Policy*, *16*(1), 298–308. https://doi.org/10.1080/15487733.2020.1829848

Business of Fashion. (2021). *State of Fashion 2021*. https://www.businessoffashion.com/

Carrington, M. J., Neville, B. A., & Whitwell, G. J. (2010). Why ethical consumers don't walk their talk: Towards a framework for understanding the gap between the ethical purchase intentions and actual buying behaviour of ethically minded consumers. *Journal of Business Ethics*, *97*(1), 139–158. https://doi.org/10.1007/S10551-010-0501-6/METRICS

Cayaban, C. J. G., Prasetyo, Y. T., Persada, S. F., Borres, R. D., Gumasing, M. J. J., & Nadlifatin, R. (2023). The Influence of Social Media and Sustainability Advocacy on the Purchase Intention of Filipino Consumers in Fast Fashion. *Sustainability 2023, Vol. 15, Page 8502*, *15*(11), 8502. https://doi.org/10.3390/SU15118502

Census of India. (2011a). *Census tables | Government of India*. https://censusindia.gov.in/census.website/data/census-tables

Census of India. (2011b). *Uttar Pradesh Population 2022 | Sex Ratio & Literacy rate 2024*. 2011. https://www.census2011.co.in/census/state/uttar+pradesh.html

Centre for Science and Environment (CSE). (2018). *REPORT ON ASSESSMENT OF INDUSTRIAL AIR POLLUTION IN DELHI-NCR*.

Chan, T. yan, & Wong, C. W. Y. (2012). The consumption side of sustainable fashion supply chain: Understanding fashion consumer eco-fashion consumption decision. *Journal of Fashion Marketing and Management*, *16*(2), 193–215. https://doi.org/10.1108/13612021211222824/FULL/XML

Chand, D. (2022). Livelihood Struggle for Sustainability and Dignity in Context of Caste (Case of Musahar Youth in Rural Uttar Pradesh in India). *Https://Doi.Org/10.1177/00219096221098691*, *59*(1), 90–105. https://doi.org/10.1177/00219096221098691

Chaudhary, V., Sharma, Prof. A., & Yadav, M. (2024). Exploring The Impact Of Trust, Social Influence, And Peer Recommendation On Buying Behavior In Online Shopping: A Structural Equation Modeling Approach". *Educational Administration: Theory and Practice*, *30*(4), 466–476. https://doi.org/10.53555/KUEY.V30I4.1491

Chen, Y. S., & Chang, C. H. (2012). Enhance green purchase intentions: The roles of green perceived value, green perceived risk, and green trust. *Management Decision*, *50*(3), 502–520. https://doi.org/10.1108/00251741211216250/FULL/XML

Cheung, G. W., Cooper-Thomas, H. D., Lau, R. S., & Wang, L. C. (2024). Reporting reliability, convergent and discriminant validity with structural equation modeling: A review and best-practice recommendations. *Asia Pacific Journal of Management*, *41*(2), 745–783. https://doi.org/10.1007/s10490-023-09871-y

Cho, H., Jo, D., & Kim, H. (2024). Understanding Consumer Perception towards Sustainable Apparel: A Parallel Mediation Analysis on Satisfaction and Trust. *Sustainability 2024, Vol. 16, Page 6835*, *16*(16), 6835. https://doi.org/10.3390/SU16166835

Choi, T. M., & Cheng, T. C. E. (2015). Sustainable fashion supply chain management: From sourcing to retailing. *Sustainable Fashion Supply Chain Management: From Sourcing to Retailing*, 1–205. https://doi.org/10.1007/978-3-319-12703-3/COVER

Connell, K. Y. H. (2010). Internal and external barriers to eco-conscious apparel acquisition. *International Journal of Consumer Studies*, *34*(3), 279–286. https://doi.org/10.1111/J.1470-6431.2010.00865.X

Connell, K. Y. H. (2011). Exploring consumers perceptions of eco-conscious apparel acquisition behaviors. *Social Responsibility Journal*, *7*(1), 61–73. https://doi.org/10.1108/17471111111114549

Corboș, R. A., Bunea, O. I., Triculescu, M., & Mișu, S. I. (2024). Which Values Matter Most to Romanian Consumers? Exploring the Impact of Green Attitudes and Communication on Buying Behavior. *Sustainability 2024, Vol. 16, Page 3866*, *16*(9), 3866. https://doi.org/10.3390/SU16093866

Cruz, S. M., & Manata, B. (2020). Measurement of Environmental Concern: A Review and Analysis. *Frontiers in Psychology*, *11*, 493793. https://doi.org/10.3389/FPSYG.2020.00363/BIBTEX

Dangelico, R. M., Nonino, F., & Pompei, A. (2021). Which are the determinants of green purchase behaviour? A study of Italian consumers. *Business Strategy and the Environment*, *30*(5), 2600–2620. https://doi.org/10.1002/BSE.2766

Dewi, W. W. A., & Syauki, W. R. (2023). Green awareness of female consumers towards sustainable products in Indonesia. *Jurnal Pengelolaan Sumberdaya Alam Dan Lingkungan (Journal of Natural Resources and Environmental Management)*, *13*(1), 129–139. https://doi.org/10.29244/jpsl.13.1.129-139

Dhir, A., Sadiq, M., Talwar, S., Sakashita, M., & Kaur, P. (2021). Why do retail consumers buy green apparel? A knowledge-attitude-behaviour-context perspective. *Journal of Retailing and Consumer Services*, *59*, 102398. https://doi.org/10.1016/J.JRETCONSER.2020.102398

Dhir, A., Talwar, S., Sadiq, M., Sakashita, M., & Kaur, P. (2021). Green apparel buying behaviour: A Stimulus–Organism–Behaviour–Consequence (SOBC) perspective on sustainability-oriented consumption in Japan. *Business Strategy and the Environment*, *30*(8), 3589–3605. https://doi.org/10.1002/BSE.2821

Diamantopoulos, A., Schlegelmilch, B. B., Sinkovics, R. R., & Bohlen, G. M. (2003). Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation. *Journal of Business Research*, *56*(6), 465–480. https://doi.org/10.1016/S0148-2963(01)00241-7

Diandri, P. A., & Yeshika, A. (2024). The Moderating Role of Generation Differences Determinant Factors of Sustainable Apparel Behavior Intention. *Indonesian Journal of Business and Entrepreneurship*, *10*(1), 154. https://doi.org/10.17358/IJBE.10.1.154

Do, V. T. H., & Do, L. T. (2024). The effectiveness of social norms in promoting green consumption. *Social Responsibility Journal*, *20*(3), 444–461. https://doi.org/10.1108/SRJ-10-2022-0466/FULL/XML

Doodlage. (2021). *"Upcycled Fashion"* . https://doodlage.in/

Dr. Mona Bhalla, Dr. Rimi Moitra, & Dr. Pallavi Rallan. (2023). Demographic implications on Sustainable Consumption: An Indian case study. *Journal of Informatics Education and Research*, *3*(2). https://doi.org/10.52783/JIER.V3I2.442

DSCENE. (2023). *7 Trends That Shape Sustainable Fashion In 2023*. https://www.designscene.net/2023/09/trends-that-shape-sustainable-fashion.html

D'Souza, C., Gilmore, A. J., Hartmann, P., Apaolaza Ibáñez, V., & Sullivan-Mort, G. (2015). Male eco-fashion: A market reality. *International Journal of Consumer Studies*, *39*(1), 35–42. https://doi.org/10.1111/ijcs.12148

D'Souza, C., Taghian, M., & Lamb, P. (2006). An empirical study on the influence of environmental labels on consumers. *Corporate Communications*, *11*(2), 162–173. https://doi.org/10.1108/13563280610661697/FULL/XML

D'Souza, C., Taghian, M., Lamb, P., & Peretiatko, R. (2007). Green decisions: Demographics and consumer understanding of environmental labels. *International Journal of Consumer Studies*, *31*(4), 371–376. https://doi.org/10.1111/J.1470-6431.2006.00567.X

Durrani, S., Sohail, M., & Rana, M. W. (2023). The Influence of Shopping Motivation On Sustainable Consumption: A Study Related To Eco-Friendly Apparel. *Journal of Social Sciences Review*, *3*(2), 248–268. https://doi.org/10.54183/JSSR.V3I2.179

Dutta, S., & Bansal, P. (2024). Evolution of sustainable wearables: integrating cutting-edge techniques for future textile innovation. *Research Journal of Textile and Apparel*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/RJTA-03-2024-0044/FULL/XML

Ellen MacArthur Foundation. (2017). *A New Textiles Economy: Redesigning Fashion's Future*. https://www.ellenmacarthurfoundation.org/a-new-textiles-economy

Essiz, O., Yurteri, S., Mandrik, C., & Senyuz, A. (2023). Exploring the Value-Action Gap in Green Consumption: Roles of Risk Aversion, Subjective Knowledge, and Gender Differences. *Journal of Global Marketing*, *36*(1), 67–92. https://doi.org/10.1080/08911762.2022.2116376

Ethicus. (2021). *"Ethical Fashion and Organic Cotton."* https://www.ethicus.in/

EY India. (2020). *Exploring the shift: GCCs moving to Tier-2 cities for cost and talent advantages | EY - India*. https://www.ey.com/en_in/insights/consulting/exploring-the-shift-gccs-moving-to-tier-2-cities-for-cost-and-talent-advantages

Fabindia. (2020). *"Sustainable Practices."* https://www.fabindia.com/

Fan, L., & Mendizabal Joffre, V. (2020). *The Gender Dimension of Sustainable Consumption and Production: A Microsurvey-Based Analysis of Gender Differences in Awareness, Attitudes, and Behaviors in the People's Republic of China*. https://doi.org/10.22617/WPS200401-2

Farzin, M., Shababi, H., Shirchi Sasi, G., Sadeghi, M., & Makvandi, R. (2023). The determinants of eco-fashion purchase intention and willingness to pay. *Spanish Journal of Marketing - ESIC*, *27*(3), 348–366. https://doi.org/10.1108/SJME-07-2022-0158/FULL/PDF

Fazli-Salehi, R., Torres, I. M., Madadi, R., & Zúñiga, M. Á. (2024). Impact of consumers impulsiveness and variety-seeking traits on self-brand connection and communal-brand connection with high- vs. low-involvement products. *Journal of Marketing Theory and Practice*, *32*(2), 191–209. https://doi.org/10.1080/10696679.2022.2143380

Felicia, I., & Widyastuti. (2024). The Effect of Variety Seeking, Dissatisfaction, and Service Quality Toward Brand Switching on Netflix Streaming Service. *Social Science Studies*, *4*(1), 052–052. https://doi.org/10.47153/SSS41.7862024

Fibre2fashion. (2024). *Top 26 Sustainable Fashion Brands in India - Fibre2Fashion*. https://www.fibre2fashion.com/industry-article/10101/top-26-sustainable-fashion-brands-in-india

First Insight. (2020). *The State of Consumer Spending: Gen Z Influencing All Generations to Make Sustainability-First Purchase Decisions*. https://www.firstinsight.com/press-releases/the-state-of-consumer-spending-gen-z-influencing-all-generations-to-make-sustainability-first-purchase-decisions

Fletcher, K. (2013). Sustainable fashion and textiles: Design journeys, second edition. *Sustainable Fashion and Textiles: Design Journeys, Second Edition*, 1–267. https://doi.org/10.4324/9781315857930

Frontiers Research Topic. (2024). *Attitude and Attitude Change: New Perspectives | Frontiers Research Topic*. https://www.frontiersin.org/research-topics/29237/attitude-and-attitude-change-new-perspectives

G, S., & Sudha Babel, D. (2022). *GREEN APPAREL BUYING BEHAVIOR AMONG FEMALES OF LUCKNOW CITY*. www.ijnrd.org

Gazzola, P., Pavione, E., Pezzetti, R., & Grechi, D. (2020). Trends in the Fashion Industry. The Perception of Sustainability and Circular Economy: A Gender/Generation Quantitative Approach. *Sustainability 2020, Vol. 12, Page 2809*, *12*(7), 2809. https://doi.org/10.3390/SU12072809

George, Darren., & Mallery, Paul. (2011). *SPSS for Windows step by step : a simple guide and reference, 17.0 update*. 386. https://books.google.com/books/about/SPSS_for_Windows_Step_by_Step_A_Simple_S.html?id=zB_G2u0pN7kC

Ghaffar, A., & Islam, T. (2024). Factors leading to sustainable consumption behavior: an empirical investigation among millennial consumers. *Kybernetes*, *53*(8), 2574–2592. https://doi.org/10.1108/K-12-2022-1675/FULL/XML

Ghazali, E. M., Nguyen, B., Mutum, D. S., & Yap, S.-F. (2019). Pro-Environmental Behaviours and Value-Belief-Norm Theory: Assessing Unobserved Heterogeneity of Two Ethnic Groups. *Sustainability 2019, Vol. 11, Page 3237*, *11*(12), 3237. https://doi.org/10.3390/SU11123237

Global Youth Trends. (2024). *Global Youth Trends 2024*. https://www.techsciresearch.com/blog/global-youth-trends/2374.html

Goldsmith, R. E., & Hofacker, C. F. (1991). Measuring consumer innovativeness. *Journal of the Academy of Marketing Science*, *19*(3), 209–221. https://doi.org/10.1007/BF02726497/METRICS

Goworek, H., Fisher, T., Cooper, T., Woodward, S., & Hiller, A. (2012). The sustainable clothing market: An evaluation of potential strategies for UK retailers. *International Journal of Retail and Distribution Management*, *40*(12), 935–955. https://doi.org/10.1108/09590551211274937/FULL/XML

Grassroot by Anita Dongre. (2021). *"Handcrafted Sustainable Fashion"* . https://www.anitadongre.com/WOMEN/Collections/Grassroot-by-Anita-Dongre

Greenpeace. (2011). *Detox My Fashion*. https://www.greenpeace.org/global/

Gunawan, A. I., Sosianika, A., Rafdinal, W., & Ananta, D. (2022). Discovering advancement in technology and mass media influence on gen Y male fashion consciousness. *Diponegoro International Journal of Business*, *5*(2), 146–157. https://doi.org/10.14710/dijb.5.2.2022.146-157

Guo, H., & Tsinopoulos, C. (2024). Enabling a Circular Economy Through Green Manufacturing in Chinese Apparel Manufacturers: Antecedents and Outcomes. *IEEE Transactions on Engineering Management*, *71*, 9540–9554. https://doi.org/10.1109/TEM.2023.3296352

Gupta, S., & Ogden, D. T. (2009). To buy or not to buy? A social dilemma perspective on green buying. *Journal of Consumer Marketing*, *26*(6), 378–393. https://doi.org/10.1108/07363760910988201/FULL/XML

Gutman, J. (1982). A Means-End Chain Model Based on Consumer Categorization Processes. *Journal of Marketing*, *46*(2), 60–72. https://doi.org/10.1177/002224298204600207

Hageman, E., Kumar, V., Duong, L., Kumari, A., & McAuliffe, E. (2024). Do fast fashion sustainable business strategies influence attitude, awareness and behaviours of female consumers? *Business Strategy and the Environment*, *33*(2), 1081–1098. https://doi.org/10.1002/BSE.3545

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. In *European Business Review* (Vol. 31, Issue 1, pp. 2–24). Emerald Group Publishing Ltd. https://doi.org/10.1108/EBR-11-2018-0203

Han, H., Hsu, L. T. (Jane), & Sheu, C. (2010). Application of the Theory of Planned Behavior to green hotel choice: Testing the effect of environmental friendly activities. *Tourism Management*, *31*(3), 325–334. https://doi.org/10.1016/J.TOURMAN.2009.03.013

Harinaiha, A., Kansal, A., Parekh, M., Khurana, J., Barla, U. K., Agarwal, V., & Dev, A. (2024). Effects of Media Representation on Youth Fashion and Style Preferences. *EVOLUTIONARY STUDIES IN IMAGINATIVE CULTURE*, *8.2*(S2), 1000–1010. https://doi.org/10.70082/ESICULTURE.VI.1098

Hasbullah, N. N., Sulaiman, Z., Mas'od, A., & Ahmad Sugiran, H. S. (2022). Drivers of Sustainable Apparel Purchase Intention: An Empirical Study of Malaysian Millennial Consumers. *Sustainability (Switzerland)*, *14*(4). https://doi.org/10.3390/su14041945

He, L., Lin, M., Liang, S., Geng, L., & Chen, Z. (2024). Which aesthetics works, classical or expressive? How and when aesthetic appearance enhances green consumption. *Asia Pacific Journal of Marketing and Logistics*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/APJML-12-2023-1214/FULL/XML

Henninger, C. E., Alevizou, P. J., & Oates, C. J. (2016). What is sustainable fashion? *Journal of Fashion Marketing and Management*, *20*(4), 400–416. https://doi.org/10.1108/JFMM-07-2015-0052/FULL/XML

Henseler, J., & Chin, W. W. (2010). A Comparison of Approaches for the Analysis of Interaction Effects Between Latent Variables Using Partial Least Squares Path Modeling. *Structural Equation Modeling*, *17*, 82–109. https://doi.org/10.1080/10705510903439003

Hill, J., & Lee, H. H. (2012). Young Generation Y consumers perceptions of sustainability in the apparel industry. *Journal of Fashion Marketing and Management*, *16*(4), 477–491. https://doi.org/10.1108/13612021211265863/FULL/XML

Hirschman, E. C. (1980). Innovativeness, Novelty Seeking, and Consumer Creativity. *Journal of Consumer Research*, *7*(3), 283–295. https://doi.org/10.1086/208816

H&M Group. (2022). *"Sustainability Commitment."* https://hmgroup.com/

Hosseini-Motlagh, S. M., Johari, M., Zirakpourdehkordi, R., & Choi, T. M. (2024). Sustainable Operations for Fashion Manufacturing: A Dynamic Time-Varying Framework. *IEEE Transactions on Engineering Management*, *71*, 11375–11389. https://doi.org/10.1109/TEM.2024.3400993

Huajian, C. (2024). Attitude. *The ECPH Encyclopedia of Psychology*, 1–3. https://doi.org/10.1007/978-981-99-6000-2_266-1

Huang, J., Thoo, A. C., Tuan, Y., & Lo, J. (2024). *Systematic Review of Consumer Behavior Research in the Context of Green Apparel*. https://doi.org/10.6007/IJARBSS/v14-i1/20575

Hwang, K., & Kim, H. (2018). Are Ethical Consumers Happy? Effects of Ethical Consumers Motivations Based on Empathy Versus Self-orientation on Their Happiness. *Journal of Business Ethics*, *151*(2), 579–598. https://doi.org/10.1007/S10551-016-3236-1

IBEF. (2025). *India's Apparel Market Growth: Key Trends 2025 | IBEF*. https://www.ibef.org/blogs/fashion-forward-an-analysis-of-india-s-growing-apparel-market

Inditex Group. (2021). *"Join Life and Sustainability Initiatives"* . https://www.inditex.com/itxcomweb/en/home

Jain, R. (2024). *Consumer Spending: Unlocking growth in tier 2 and tier 3 Indian cities, ET BrandEquity*. https://brandequity.economictimes.indiatimes.com/news/marketing/unlocking-growth-in-tier-2-and-tier-3-indian-cities/108687267

Jain, S. K., & Kaur, G. (2004). *Green marketing: An Indian perspective*.

Jaiswal, D., & Kant, R. (2018). Green purchasing behaviour: A conceptual framework and empirical investigation of Indian consumers. *Journal of Retailing and Consumer Services*, *41*, 60–69. https://doi.org/10.1016/J.JRETCONSER.2017.11.008

Jamil, K., Dunnan, L., Gul, R. F., Shehzad, M. U., Gillani, S. H. M., & Awan, F. H. (2022). Role of Social Media Marketing Activities in Influencing Customer Intentions:

A Perspective of a New Emerging Era. *Frontiers in Psychology*, *12*, 808525. https://doi.org/10.3389/FPSYG.2021.808525/BIBTEX

Janpors, N. (Nicki), Raeisi Ziarani, M., & Taghavi, S. M. (2023). *Demand Prediction for Luxury Fashion Clothing: The Role of Customers' Values, Brand Consciousness, and Behavioral Intentions*. https://papers.ssrn.com/abstract=4320394

Jaypore. (2020). *"Artisan-Made Fashion."* https://www.jaypore.com/

Joergens, C. (2006). Ethical fashion: Myth or future trend? *Journal of Fashion Marketing and Management*, *10*(3), 360–371. https://doi.org/10.1108/13612020610679321/FULL/XML

Joseph F. Hair, William C. Black, Barry J. Babin, Ralph E. Anderson, S. (2019). *Multivariate data analysis*. xvii, 813 pages : https://books.google.com/books/about/Multivariate_Data_Analysis.html?id=0R9ZswEACAAJ

Joshi, Y., & Rahman, Z. (2015). Factors Affecting Green Purchase Behaviour and Future Research Directions. *International Strategic Management Review*, *3*(1–2), 128–143. https://doi.org/10.1016/J.ISM.2015.04.001

Joung, H. M. (2014). Fast-fashion consumers post-purchase behaviours. *International Journal of Retail and Distribution Management*, *42*(8), 688–697. https://doi.org/10.1108/IJRDM-03-2013-0055/FULL/XML

Joy, A., Sherry, J. F., Venkatesh, A., Wang, J., & Chan, R. (2012). Fast Fashion, Sustainability, and the Ethical Appeal of Luxury Brands. *Fashion Theory*, *16*(3), 273–295. https://doi.org/10.2752/175174112X13340749707123

Jung, S., & Jin, B. (2016). Sustainable development of slow fashion businesses: Customer value approach. *Sustainability (Switzerland)*, *8*(6). https://doi.org/10.3390/SU8060540

Kahn, S., & Kumar, P. (2024). Online Impulse Buying: Typology and Theory. *European Economic Letters*. https://doi.org/10.52783/eel.v14i2.1387

Kala, D., & Chaubey, D. S. (2024). Exploring the determinants of fashion clothing rental consumption among young Indians using the extended theory of reasoned action. *Global Knowledge, Memory and Communication*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/GKMC-12-2023-0501/FULL/XML

Kamalanon, P., Chen, J. S., & Le, T. T. Y. (2022). "Why Do We Buy Green Products?" An Extended Theory of the Planned Behavior Model for Green Product Purchase Behavior. *Sustainability 2022, Vol. 14, Page 689*, *14*(2), 689. https://doi.org/10.3390/SU14020689

Kang, J., & Kim, S. H. (2013). What Are Consumers Afraid of? Understanding Perceived Risk toward the Consumption of Environmentally Sustainable Apparel. *Family and Consumer Sciences Research Journal*, *41*(3), 267–283. https://doi.org/10.1111/FCSR.12013

Kang, J., Liu, C., & Kim, S. H. (2013). Environmentally sustainable textile and apparel consumption: The role of consumer knowledge, perceived consumer effectiveness and perceived personal relevance. *International Journal of Consumer Studies*, *37*(4), 442–452. https://doi.org/10.1111/IJCS.12013

Kapoor, B., & Sondhi, V. (2023). Exploring the Understanding of Globalization: A Qualitative Study of the Urban, Educated, Middle-Class, Young Indians. *Https://Doi.Org/10.1177/1354067X231185719*, *30*(2), 367–386. https://doi.org/10.1177/1354067X231185719

Karaosman, H., Perry, P., Brun, A., & Morales-Alonso, G. (2020). Behind the runway: Extending sustainability in luxury fashion supply chains. *Journal of Business Research*, *117*, 652–663. https://doi.org/10.1016/J.JBUSRES.2018.09.017

Karpova, E. E., Reddy-Best, K. L., & Bayat, F. (2024). Developing a typology of sustainable apparel consumer: An application of grounded theory. *Journal of Global Fashion Marketing*, *15*(2), 203–220. https://doi.org/10.1080/20932685.2023.2201251

Kaufmann, H., Ruediger, ;, Panni, M., Fateh, A., Khan, ;, & Orphanidou, Y. (2012). Factors Affecting Consumers Green Purchasing Behavior: An Integrated Conceptual

Framework. *Amfiteatru Economic Journal*, *14*(31), 50–69. https://www.econstor.eu/handle/10419/168746

Kaur, J., Malik, P., & Singh, S. (2023). Expressing Your Personality Through Apparels: Role of Fashion Involvement and Innovativeness in Purchase Intention. *Https://Doi.Org/10.1177/23197145221130653*, *13*(3), 318–330. https://doi.org/10.1177/23197145221130653

Kaur, J., Mogaji, E., Paliwal, M., Jha, S., Agarwal, S., & Mogaji, S. A. (2024). Consumer behavior in the metaverse. *Journal of Consumer Behaviour*, *23*(4), 1720–1738. https://doi.org/10.1002/CB.2298

Kaushal, S. K., Khanna, P., & Gupta, P. (2021). Understanding the Factors Affecting Green Purchase Behavior of Consumers with Special Reference to Uttar Pradesh, India. *ADHYAYAN: A JOURNAL OF MANAGEMENT SCIENCES*, *11*(01), 1–7. https://doi.org/10.21567/ADHYAYAN.V11I1.01

Khan, M. N., & Kirmani, M. D. (2015). Influence of environmental characteristics of the consumers on their willingness to pay for green products: an empirical investigation. *International Journal of Social Entrepreneurship and Innovation*, *3*(5), 374. https://doi.org/10.1504/IJSEI.2015.072532

Khan, O., Varaksina, N., & Hinterhuber, A. (2024). The influence of cultural differences on consumers willingness to pay more for sustainable fashion. *Journal of Cleaner Production*, *442*, 141024. https://doi.org/10.1016/J.JCLEPRO.2024.141024

Khan, S. J., Badghish, S., Kaur, P., Sharma, R., & Dhir, A. (2023). What motivates the purchasing of green apparel products? A systematic review and future research agenda. *Business Strategy and the Environment*, *32*(7), 4183–4201. https://doi.org/10.1002/BSE.3360

Khanday, S. A., & Khanam, D. (2023). *THE RESEARCH DESIGN*. https://www.questionpro.com/blog/research-design/

Khare, A. (2023). Green Apparel Buying: Role of Past Behavior, Knowledge and Peer Influence in the Assessment of Green Apparel Perceived Benefits. *Journal of*

International Consumer Marketing, *35*(1), 109–125. https://doi.org/10.1080/08961530.2019.1635553

Khare, A., & Kautish, P. (2022). Antecedents to green apparel purchase behavior of Indian consumers. *Journal of Global Scholars of Marketing Science(마케팅과학연구)*, *32*(2), 222–251. https://doi.org/10.1080/21639159.2021.1885301

Kim, W. Bin, Kim, C., & Kurata, K. (2025). Relationships among consumer innovativeness, learning, and global product purchases: Store manager perspectives in retailing. *Journal of Retailing and Consumer Services*, *82*, 104084. https://doi.org/10.1016/J.JRETCONSER.2024.104084

Kim, J., Park, J., & Glovinsky, P. L. (2018). Customer involvement, fashion consciousness, and loyalty for fast-fashion retailers. *Journal of Fashion Marketing and Management*, *22*(3), 301–316. https://doi.org/10.1108/JFMM-03-2017-0027/FULL/XML

Kimberlin, C. L., & Winterstein, A. G. (2008). Validity and reliability of measurement instruments used in research. In *American Journal of Health-System Pharmacy* (Vol. 65, Issue 23, pp. 2276–2284). American Society of Health-Systems Pharmacy. https://doi.org/10.2146/ajhp070364

Klopfenstein, N., Wyss, V., & Weber, W. (2024). Factors influencing young people's news consumption in Switzerland during normative transitions: A mixed methods study. *Journal of Children and Media*, *18*(1), 120–137. https://doi.org/10.1080/17482798.2023.2278141

Kozar, J. M., & Connell, K. Y. H. (2013). Socially and environmentally responsible apparel consumption: Knowledge, attitudes, and behaviors. *Social Responsibility Journal*, *9*(2), 316–325. https://doi.org/10.1108/SRJ-09-2011-0076

KPMG. (2021). *Fashion 2030 study*.

Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, *30*(3), 607–610. https://doi.org/10.1177/001316447003000308

Kumar, A. (2024). *(PDF) Green Consumerism and Environmental Sustainability*. https://www.researchgate.net/publication/383124064_Green_Consumerism_and_Environmental_Sustainability

Kumar, M. (2024). *Status of Youth's Employment in Uttar Pradesh: Demographic Dividend or Disaster*. 107–121. https://doi.org/10.1007/978-981-97-0379-1_6

Kumar, N., Garg, P., & Singh, S. (2022). Pro-environmental purchase intention towards eco-friendly apparel: Augmenting the theory of planned behavior with perceived consumer effectiveness and environmental concern. *Journal of Global Fashion Marketing*, *13*(2), 134–150. https://doi.org/10.1080/20932685.2021.2016062

Kumar, P., & Ghodeswar, B. M. (2015). Factors affecting consumers green product purchase decisions. *Marketing Intelligence and Planning*, *33*(3), 330–347. https://doi.org/10.1108/MIP-03-2014-0068/FULL/XML

Kwon, O., Singh, T., & Kim, S. A. (2023). The competing roles of variety seeking in new brand adoption. *Journal of Retailing and Consumer Services*, *72*, 103283. https://doi.org/10.1016/J.JRETCONSER.2023.103283

Laroche, M., Bergeron, J., & Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing*, *18*(6), 503–520. https://doi.org/10.1108/EUM0000000006155/FULL/XML

Lavuri, R., & Gopi, R. K. (2024). Demystifying the product attribute nexus: illuminating webrooming behavior in emerging fashion industry. *Journal of Product and Brand Management*, *33*(5), 590–603. https://doi.org/10.1108/JPBM-04-2023-4473/FULL/XML

Lee, K. (2009). Gender differences in Hong Kong adolescent consumers green purchasing behavior. *Journal of Consumer Marketing*, *26*(2), 87–96. https://doi.org/10.1108/07363760910940456/FULL/XML

Lee, K. H., Sung, Y. J., Kyuu, ··, & Lee, H. (2023). Shopping on Fashion Vertical Platforms: The Mediating Effect of Platform Satisfaction and The Moderating Effect of Consumer Innovativeness. *Journal of Fashion Business*, *27*(4), 38–49. https://doi.org/10.12940/JFB.2023.27.4.38

Leung, L. (2015). Validity, reliability, and generalizability in qualitative research. *Journal of Family Medicine and Primary Care*, *4*(3), 324. https://doi.org/10.4103/2249-4863.161306

Levi Strauss & Co. (2020). *"Sustainability and Climate Action"* . https://www.levistrauss.com/

Li, M., Bai, X., Xing, S., & Wang, X. (2023). How the smart product attributes influence consumer adoption intention. *Frontiers in Psychology*, *14*, 1090200. https://doi.org/10.3389/FPSYG.2023.1090200/BIBTEX

Liere, K. D. V., & Dunlap, R. E. (1980). The Social Bases of Environmental Concern: A Review of Hypotheses, Explanations and Empirical Evidence. *Public Opinion Quarterly*, *44*(2), 181–197. https://doi.org/10.1086/268583

Lim, I., & Lady, Lady. (2023). Factors that Influence Green Purchase Behavior by Green Purchase Intention on Green Apparel. *International Journal of Indonesian Business Review*, *2*(1), 1–17. https://doi.org/10.54099/IJIBR.V2I1.390

Lim, X. J., Cheah, J. H., Ngo, L. V., Chan, K., & Ting, H. (2023). How do crazy rich Asians perceive sustainable luxury? Investigating the determinants of consumers willingness to pay a premium price. *Journal of Retailing and Consumer Services*, *75*, 103502. https://doi.org/10.1016/J.JRETCONSER.2023.103502

Lin, C. A. ;, Wang, X. ;, Yang, Y., Lin, C. A., Wang, X., & Yang, Y. (2023). Sustainable Apparel Consumption: Personal Norms, CSR Expectations, and Hedonic vs. Utilitarian Shopping Value. *Sustainability 2023, Vol. 15, Page 9116*, *15*(11), 9116. https://doi.org/10.3390/SU15119116

Lin, J., Huang, Y., & Li, M. (2024). Consumer perceived green brand innovativeness and green word-of-mouth intention: the moderating role of green knowledge. *Total*

Quality Management & Business Excellence, *35*(7–8), 814–834. https://doi.org/10.1080/14783363.2024.2345895

Lin, P. C., & Huang, Y. H. (2012). The influence factors on choice behavior regarding green products based on the theory of consumption values. *Journal of Cleaner Production*, *22*(1), 11–18. https://doi.org/10.1016/J.JCLEPRO.2011.10.002

Lin, P. H., & Chen, W. H. (2022). Factors That Influence Consumers Sustainable Apparel Purchase Intention: The Moderating Effect of Generational Cohorts. *Sustainability (Switzerland)*, *14*(14). https://doi.org/10.3390/su14148950

Lin, S. T., & Niu, H. J. (2018). Green consumption: Environmental knowledge, environmental consciousness, social norms, and purchasing behavior. *Business Strategy and the Environment*, *27*(8), 1679–1688. https://doi.org/10.1002/BSE.2233

Liu, L., Zhang, W., Li, H., & Zheng, Z. (2024). The impact of environmental accidents on the green apparel purchase behavior of Generation Z. *Frontiers in Psychology*, *15*, 1338702. https://doi.org/10.3389/FPSYG.2024.1338702/BIBTEX

Lixin, G. (2024). *The young lead new trends in consumption market - Asia News NetworkAsia News Network*. https://asianews.network/the-young-lead-new-trends-in-consumption-market/

Lochab, A., Salman, M., Mor, K., & Kumar, A. (2024). The relationship between fashion consciousness and personality traits of generation Y with moderating effect of social influence: an empirical investigation from India. *International Journal of Business Excellence*, *32*(3), 394–412. https://doi.org/10.1504/IJBEX.2024.137253

Luchs, M. G., & Mooradian, T. A. (2012). Sex, Personality, and Sustainable Consumer Behaviour: Elucidating the Gender Effect. *Journal of Consumer Policy*, *35*(1), 127–144. https://doi.org/10.1007/S10603-011-9179-0

Luo, Y., & Deng, J. (2008). The new environmental paradigm and nature-based tourism motivation. *Journal of Travel Research*, *46*(4), 392–402. https://doi.org/10.1177/0047287507308331

Malhotra, N., & David, B. (2007). *Marketing Research: an applied approach: 3rd European Edition*. https://www.researchgate.net/publication/313093161_Marketing_Research_an_applied_approach_3rd_European_Edition

Malhotra, N. K. (2020). Marketing research : an applied prientation. *Marketing Research: An Applied Orientation*. https://thuvienso.hoasen.edu.vn/handle/123456789/12586

Malhotra, N. K. . (2004). *Essentials of marketing research : an applied orientation.* 418.

Malhotra, N. K. . (2019). *Marketing research : an applied orientation*. Pearson.

Malik, K., & Joshi, M. (2023). I saw it, I bought it! The irrational buying behaviour in retail sector. *International Journal of Business and Globalisation*, *34*(1), 17–27. https://doi.org/10.1504/IJBG.2023.131268

Mandarić, D., Hunjet, A., & Vuković, D. (2022). The Impact of Fashion Brand Sustainability on Consumer Purchasing Decisions. *Journal of Risk and Financial Management 2022, Vol. 15, Page 176*, *15*(4), 176. https://doi.org/10.3390/JRFM15040176

Maps of India. (2019). https://www.mapsofindia.com/maps/india/tier-1-and-2-cities.html

Mathew, S. M., Nayak, S., & Rao, V. (2024). Determinants of online apparel mass customization: a decade in review. *Journal of Fashion Marketing and Management*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/JFMM-06-2024-0204/FULL/XML

McKinsey & Company report. (2021). *McKinsey 2021 business articles: The year in review | McKinsey & Company*. https://www.mckinsey.com/featured-insights/2021-year-in-review

Mcneill, L., & Moore, R. (2015). Sustainable fashion consumption and the fast fashion conundrum: fashionable consumers and attitudes to sustainability in clothing choice.

International Journal of Consumer Studies, *39*(3), 212–222. https://doi.org/10.1111/IJCS.12169

Mehta, P., Kaur, A., Singh, S., & Mehta, M. D. (2023). "Sustainable attitude" – a modest notion creating a tremendous difference in the glamourous fast fashion world: investigating moderating effects. *Society and Business Review*, *18*(4), 549–571. https://doi.org/10.1108/SBR-10-2021-0205/FULL/XML

Meißner, M., Pfeiffer, J., Peukert, C., Dietrich, H., & Pfeiffer, T. (2020). How virtual reality affects consumer choice. *Journal of Business Research*, *117*, 219–231. https://doi.org/10.1016/J.JBUSRES.2020.06.004

Menidjel, C., Benhabib, A., & Bilgihan, A. (2017). Examining the moderating role of personality traits in the relationship between brand trust and brand loyalty. *Journal of Product and Brand Management*, *26*(6), 631–649. https://doi.org/10.1108/JPBM-05-2016-1163

Menidjel, C., Hollebeek, L. D., Urbonavicius, S., & Sigurdsson, V. (2023). Why switch? The role of customer variety-seeking and engagement in driving service switching intention. *Journal of Services Marketing*, *37*(5), 592–605. https://doi.org/10.1108/JSM-04-2022-0122/FULL/XML

Migheli, M. (2021). Green purchasing: the effect of parenthood and gender. *Environment, Development and Sustainability*, *23*(7), 10576–10600. https://doi.org/10.1007/S10668-020-01073-6/TABLES/8

Ministry of Textiles. (2021). *Sustainability | Ministry of Textiles | GoI*. https://ministryoftextiles.gov.in/sustainability

Mishra, Dr. R., & Varshney, D. (2024). *Digital Transformation(Dt): Promoting Growth and Efficiency in Uttar Pradesh Organized Retailing*. https://papers.ssrn.com/abstract=4815142

Mishra, M., Kushwaha, R., & Gupta, N. (2024). Impact of sales promotion on consumer buying behavior in the apparel industry. *Cogent Business & Management*, *11*(1), 2310552. https://doi.org/10.1080/23311975.2024.2310552

Mishra, S., Malhotra, G., Chatterjee, R., & Kareem Abdul, W. (2023). Ecological consciousness and sustainable purchase behavior: the mediating role of psychological ownership. *Asia Pacific Journal of Marketing and Logistics*, *35*(2), 414–431. https://doi.org/10.1108/APJML-08-2021-0591/FULL/XML

Mobrezi, H., & Khoshtinat, B. (2016). Investigating the Factors Affecting Female Consumers Willingness toward Green Purchase Based on the Model of Planned Behavior. *Procedia Economics and Finance*, *36*, 441–447. https://doi.org/10.1016/S2212-5671(16)30062-4

Mohamed, M. A., & Wee, Y. G. (2020). Effects of Consumer Innovativeness, Fashion Innovativeness, and Fashion Involvement on Online Purchase Intention. *Journal of Entrepreneurship and Business*, *8*(2), 50–71. https://doi.org/10.17687/JEB.0802.05

Mohd Suki, N., & Mohd Suki, N. (2019). Examination of peer influence as a moderator and predictor in explaining green purchase behaviour in a developing country. *Journal of Cleaner Production*, *228*, 833–844. https://doi.org/10.1016/J.JCLEPRO.2019.04.218

Moon, K. L. K., Lee, J. Y., & Lai, S. yeung C. (2017). Key drivers of an agile, collaborative fast fashion supply chain: Dongdaemun fashion market. *Journal of Fashion Marketing and Management*, *21*(3), 278–297. https://doi.org/10.1108/JFMM-07-2016-0060

Moser, A. K. (2016). Consumers purchasing decisions regarding environmentally friendly products: An empirical analysis of German consumers. *Journal of Retailing and Consumer Services*, *31*, 389–397. https://doi.org/10.1016/J.JRETCONSER.2016.05.006

Nagadeepa, C., & Glady Agnes, L. (2024). Unveiling the Path to Sustainable Fashion: Women's Attitudes and Buying Behaviors Towards Green Apparels. *Technical and Vocational Education and Training*, *39*, 319–331. https://doi.org/10.1007/978-981-99-7798-7_27

Nagar, K., & Gandotra, P. (2016). Exploring choice overload, internet shopping anxiety, variety seeking and online shopping adoption relationship: Evidence from online

fashion stores. *Global Business Review*, *17*(4), 851–869. https://doi.org/10.1177/0972150916645682/ASSET/IMAGES/LARGE/10.1177_0972150916645682-FIG1.JPEG

Nandal, N., Kataria, A., Nandal, N., & Anuradha. (2024). A Study of Consumer Buying Behaviour and Their Shopping Styles for Branded Apparels in NCR. *Advancements in Business for Integrating Diversity, and Sustainability*, 245–251. https://doi.org/10.4324/9781032708294-42

Navneel. (2021). *Fashion Industry Is Expected To Up the Sustainability Game In 2022 - Indian Retailer*. https://www.indianretailer.com/article/retail-people/perspectives/fashion-industry-is-expected-to-up-the-sustainability-game-in-2022.a7641

Naz, S., Asrar-ul-Haq, M., Iqbal, A., & Ahmed, M. (2023). Relationship between brand innovativeness and customer satisfaction: a moderated mediation model from Generation M perspective. *Journal of Islamic Marketing*, *14*(11), 2928–2948. https://doi.org/10.1108/JIMA-01-2022-0029/FULL/XML

Nguyen, M. T. T., Nguyen, L. H., & Nguyen, H. V. (2019). Materialistic values and green apparel purchase intention among young Vietnamese consumers. *Young Consumers*, *20*(4), 246–263. https://doi.org/10.1108/YC-10-2018-0859

Nguyen, T. N., Lobo, A., & Nguyen, B. K. (2018). Young consumers green purchase behaviour in an emerging market. *Journal of Strategic Marketing*, *26*(7), 583–600. https://doi.org/10.1080/0965254X.2017.1318946

Niinimäki, K. (2010a). Eco-clothing, consumer identity and ideology. *Sustainable Development*, *18*(3), 150–162. https://doi.org/10.1002/SD.455

Niinimäki, K. (2013). *sustainable fashion: New approaches*.

Niinimäki, K., Peters, G., Dahlbo, H., Perry, P., Rissanen, T., & Gwilt, A. (2020). The environmental price of fast fashion. *Nature Reviews Earth & Environment 2020 1:4*, *1*(4), 189–200. https://doi.org/10.1038/s43017-020-0039-9

Nike. (2021). *"Move to Zero: Sustainability Goals."* https://www.nike.com/in/

No Nasties. (2021). *"Sustainable and Organic Clothing."* https://www.nonasties.in/

NSSO. (2020). *National Sample Survey Office (NSSO): Youth in India Report | Reports & Publications| National Portal of India*. https://www.india.gov.in/nsso-reports-publications

Ocktavia, A. K., Marenza, S. E., Al-Ayubi, S., & Maulana, H. K. (2024). Factors Influencing Fashion Consciousness in Muslim Fashion Consumption among Zillennials. *Journal of Islamic Economic Laws*, *7*(01), 56–85. https://doi.org/10.23917/JISEL.V7I01.3487

Okhai. (2019). *"Empowering Artisans through Fashion."* https://okhai.org/

Pandian, Dr. T., & J.Pari. (2024). Consumers Problems in Innovative Fashion Apparel Products. *Educational Administration: Theory and Practice*, *30*(4), 7255–7260. https://doi.org/10.53555/KUEY.V30I4.2553

Park, H. H. (2024). Scarcity effect in collaborative fashion consumption via the C2C online platform: moderating effect of consumer price sensitivity and gender. *International Journal of Fashion Design, Technology and Education*. https://doi.org/10.1080/17543266.2024.2375655

Park, H. J., & Lin, L. M. (2020). Exploring attitude–behavior gap in sustainable consumption: comparison of recycled and upcycled fashion products. *Journal of Business Research*, *117*, 623–628. https://doi.org/10.1016/J.JBUSRES.2018.08.025

Park, T., & Kim, J. (2024). Too innovative to be recycled: The role of perceived innovativeness in recycled product advertisements. *Corporate Social Responsibility and Environmental Management*. https://doi.org/10.1002/CSR.2897

Patagonia. (2021). *"Patagonia Environmental & Social Initiatives."* https://www.patagonia.com/home/

Patel, N. (2024). A Study of Khadi as an Identity of India and creating a Khadi community. In *IJFMR240214319* (Vol. 6, Issue 2). www.ijfmr.com

Pathak, A. (2024). *20 Indian Sustainable Fashion Brands That Are Weaving A Brighter Future*. https://www.gofynd.com/thecloset/indian-sustainable-fashion-

brands?srsltid=AfmBOoqf8eAdyZKh6V5mSqC82-MhNzCSwEqgkd45KmpKP9dUjhykvLGC

Pentina, I., Guilloux, V., & Micu, A. C. (2018). Exploring Social Media Engagement Behaviors in the Context of Luxury Brands. *Journal of Advertising*, *47*(1), 55–69. https://doi.org/10.1080/00913367.2017.1405756

Phatak, A. (2024). *13 Sustainable Fashion Trends To Watch Out For In 2024 (Updated List)*. https://www.gofynd.com/thecloset/sustainable-fashion-trends?srsltid=AfmBOoq4TA4X1hHBDCo2GzCaM0ANJreRmrd7iV-mn7hsNwvWTglwUaP3

Phau, I., Akintimehin, O. O., Shimul, A. S., & Lee, S. (2024). Unlocking the motivations behind vintage luxury desire. *Spanish Journal of Marketing - ESIC*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/SJME-06-2023-0167/FULL/PDF

Planning Commission Report. (2013). *Planning Department , Uttar Pradesh, India.* https://planning.up.nic.in/

Polisetty, A., Chakraborty, D., Singu, H. B., & Behl, A. (2024). Examining the relationship between pro-environmental consumption behaviour and hedonic and eudaimonic motivation. *Journal of Environmental Management*, *359*, 121095. https://doi.org/10.1016/J.JENVMAN.2024.121095

Pranta, A. D., Tareque Rahaman, M., Reazuddin Repon, M., & Shikder, A. A. R. (2024). Environmentally sustainable apparel merchandising of recycled cotton-polyester blended garments: Analysis of consumer preferences and purchasing behaviors. *Journal of Open Innovation: Technology, Market, and Complexity*, *10*(3), 100357. https://doi.org/10.1016/J.JOITMC.2024.100357

Quoquab, F., Zulaikha, N., & Sadom, M. (2020). Mindful consumption of second-hand clothing: the role of eWOM, attitude and consumer engagement. *Article in Journal of Fashion Marketing and Management*. https://doi.org/10.1108/JFMM-05-2020-0080

Rahaman, M. T., Pranta, A. D., Repon, M. R., Ahmed, M. S., & Islam, T. (2024). Green production and consumption of textiles and apparel: Importance, fabrication, challenges

and future prospects. *Journal of Open Innovation: Technology, Market, and Complexity*, *10*(2), 100280. https://doi.org/10.1016/J.JOITMC.2024.100280

Rahman, O., Jiang, Y., & Liu, W. sun. (2010). Evaluative Criteria of Denim Jeans: A Cross-national Study of Functional and Aesthetic Aspects. *The Design Journal*, *13*(3), 291–312. https://doi.org/10.2752/146069210X12766130824894

Ralph Lauren. (2021). *"Sustainable Sourcing and Innovation"* . https://www.ralphlauren.com/

Rasheed, N., Sabir, R. I., Mahmood, H., Rauf, A., Ibrahim, A. M., & Naseem, W. (2024). Impact of pro-environmental values on sustainable green apparel buying behavior in Pakistan. *Cleaner and Responsible Consumption*, *12*, 100180. https://doi.org/10.1016/J.CLRC.2024.100180

Raymond. (2021). *"Green Textile Initiatives."* https://www.raymond.in/

Rébula De Oliveira, U., Menezes, R. P., Vicente, ·, Fernandes, A., Fernandes, V. A., & Cl, V. A. (2023). A systematic literature review on corporate sustainability: contributions, barriers, innovations and future possibilities. *Environment, Development and Sustainability 2023 26:2*, *26*(2), 3045–3079. https://doi.org/10.1007/S10668-023-02933-7

Registrar General & Census Commissioner, I. (2011). *Home | Government of India*. https://censusindia.gov.in/census.website/

Reserve Bank of India. (2020). *Handbook of Statistics on Indian States*. https://rbi.org.in/

Ritch, E. L. (2015a). Consumers interpreting sustainability: moving beyond food to fashion. *International Journal of Retail and Distribution Management*, *43*(12), 1162–1181. https://doi.org/10.1108/IJRDM-04-2014-0042/FULL/XML

Ritch, E. L. (2015b). Consumers interpreting sustainability: moving beyond food to fashion. *International Journal of Retail and Distribution Management*, *43*(12), 1162–1181. https://doi.org/10.1108/IJRDM-04-2014-0042/FULL/XML

Rizkalla, N., Lestari, E. D., Arinto, B., Purnamaningsih, P., & Sulistyarini, N. (2022). Uncovering the determinants of environmentally-friendly apparel purchase intention in Indonesia: Incorporating environmental concern and knowledge into the theory of planned behavior. *Economics, Management and Sustainability*, *7*(1), 43–58. https://doi.org/10.14254/jems.2022.7-1.4

Rūtelionė, A., & Bhutto, M. Y. (2024a). Exploring the psychological benefits of green apparel and its influence on attitude, intention and behavior among Generation Z: a serial multiple mediation study applying the stimulus–organism–response model. *Journal of Fashion Marketing and Management*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/JFMM-06-2023-0161/FULL/XML

Rūtelionė, A., & Bhutto, M. Y. (2024b). Exploring the psychological benefits of green apparel and its influence on attitude, intention and behavior among Generation Z: a serial multiple mediation study applying the stimulus–organism–response model. *Journal of Fashion Marketing and Management*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/JFMM-06-2023-0161/FULL/XML

Rūtelionė, A., & Bhutto, M. Y. (2024c). Exploring the psychological benefits of green apparel and its influence on attitude, intention and behavior among Generation Z: a serial multiple mediation study applying the stimulus–organism–response model. *Journal of Fashion Marketing and Management*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/JFMM-06-2023-0161/FULL/XML

Sadiq, M., Paul, J., & Bharti, K. (2020). Dispositional traits and organic food consumption. *Journal of Cleaner Production*, *266*, 121961. https://doi.org/10.1016/J.JCLEPRO.2020.121961

Sakshi, S., Gao, Y., Rana, S., Ravichandran, S. S., Kharub, M., & Jasim, K. M. (2024a). Decoding Gen Y Online Shopping Patterns: A Model-based Study. *Vision*. https://doi.org/10.1177/09722629231216822/ASSET/IMAGES/LARGE/10.1177_09722629231216822-FIG2.JPEG

Sakshi, S., Gao, Y., Rana, S., Ravichandran, S. S., Kharub, M., & Jasim, K. M. (2024b). Decoding Gen Y Online Shopping Patterns: A Model-based Study. *Vision*.

https://doi.org/10.1177/09722629231216822/ASSET/IMAGES/LARGE/10.1177_09722629231216822-FIG2.JPEG

Sarker, M. S. I., & Bartok, I. (2024). Global trends of green manufacturing research in the textile industry using bibliometric analysis. *Case Studies in Chemical and Environmental Engineering*, *9*, 100578. https://doi.org/10.1016/J.CSCEE.2023.100578

Sarstedt, M., Ringle, C. M., Hair, J. F., & Hair, J. F. (2021). *Partial Least Squares Structural Equation Modeling*. https://doi.org/10.1007/978-3-319-05542-8_15-2

Schiffman, L. G. ., & Kanuk, L. Lazar. (2007). *Consumer behavior*. 22. https://books.google.com/books/about/Consumer_Behavior.html?id=vTRPngEACAAJ

Schlegelmilch, B. B., Bohlen, G. M., & Diamantopoulos, A. (1996). The link between green purchasing decisions and measures of environmental consciousness. *European Journal of Marketing*, *30*(5), 35–55. https://doi.org/10.1108/03090569610118740/FULL/XML

Şener, T., Bişkin, F., & Dündar, N. (2023). The effects of perceived value, environmental concern and attitude on recycled fashion consumption. *Journal of Fashion Marketing and Management*, *27*(4), 595–611. https://doi.org/10.1108/JFMM-01-2021-0003/FULL/XML

Senthilkannan, S., Miguel, M., & Gardetti, A. (2020). *Sustainable Textiles: Production, Processing, Manufacturing & Chemistry Sustainability in the Textile and Apparel Industries*. http://www.springer.com/series/16490

Seo, S., & Kim, M. K. (2023). Consumers Neophobic and Variety-Seeking Tendency in Food Choices According to Their Fashion Involvement Status: An Exploratory Study of Korean Consumers. *Foods 2023, Vol. 12, Page 1878*, *12*(9), 1878. https://doi.org/10.3390/FOODS12091878

Shah, S. K., Tang, Z., Gavurova, B., Oláh, J., & Acevedo-Duque, Á. (2022). Modeling consumer's innovativeness and purchase intention relationship regarding 5G technology in China. *Frontiers in Environmental Science*, *10*, 1017557. https://doi.org/10.3389/FENVS.2022.1017557/BIBTEX

Shankar, R. (2024). Generation Z versus Millennial purchase intentions: A comparative study based on social media marketing strategies in India with respect to the fashion and beauty industry. *Multidisciplinary Reviews*, *7*(7), 2024127–2024127. https://doi.org/10.31893/MULTIREV.2024127

Sharma, A., & Foropon, C. (2019). Green product attributes and green purchase behavior: A theory of planned behavior perspective with implications for circular economy. *Management Decision*, *57*(4), 1018–1042. https://doi.org/10.1108/MD-10-2018-1092/FULL/XML

Shen, B. (2014a). Sustainable Fashion Supply Chain: Lessons from H&M. *Sustainability 2014, Vol. 6, Pages 6236-6249*, *6*(9), 6236–6249. https://doi.org/10.3390/SU6096236

Shen, B. (2014b). Sustainable Fashion Supply Chain: Lessons from H&M. *Sustainability 2014, Vol. 6, Pages 6236-6249*, *6*(9), 6236–6249. https://doi.org/10.3390/SU6096236

Shen, B., Wang, Y., Lo, C. K. Y., & Shum, M. (2012a). The impact of ethical fashion on consumer purchase behavior. *Journal of Fashion Marketing and Management*, *16*(2), 234–245. https://doi.org/10.1108/13612021211222842/FULL/XML

Shen, B., Wang, Y., Lo, C. K. Y., & Shum, M. (2012b). The impact of ethical fashion on consumer purchase behavior. *Journal of Fashion Marketing and Management*, *16*(2), 234–245. https://doi.org/10.1108/13612021211222842/FULL/XML

Shen, J., & Saijo, T. (2008). Reexamining the relations between socio-demographic characteristics and individual environmental concern: Evidence from Shanghai data. *Journal of Environmental Psychology*, *28*(1), 42–50. https://doi.org/10.1016/J.JENVP.2007.10.003

Sheth, J. N., Newman, B. I., & Gross, B. L. (1991). Why we buy what we buy: A theory of consumption values. *Journal of Business Research*, *22*(2), 159–170. https://doi.org/10.1016/0148-2963(91)90050-8

Shibin, K. T., Gunasekaran, A., Papadopoulos, T., Dubey, R., & Mishra, D. (2016). Sustainable consumption and production: Need, challenges and further research

directions. *International Journal of Process Management and Benchmarking*, *6*(4), 447–468. https://doi.org/10.1504/IJPMB.2016.079678

Shokeen, A., Lochab, Dr. A., & Sharma, Dr. R. (2022a). Fashion Consciousness: A Bibliometric Analysis. *International Journal for Research in Applied Science and Engineering Technology*, *10*(7), 4273–4279. https://doi.org/10.22214/IJRASET.2022.45936

Shokeen, A., Lochab, Dr. A., & Sharma, Dr. R. (2022b). Fashion Consciousness: A Bibliometric Analysis. *International Journal for Research in Applied Science and Engineering Technology*, *10*(7), 4273–4279. https://doi.org/10.22214/ijraset.2022.45936

Singh, N., Chakrabarti, N., & Tripathi, R. (2023). Factors determining fashion clothing interest and purchase intention: A study of Generation Z consumers in India. *Fashion, Style & Popular Culture*. https://doi.org/10.1386/FSPC_00197_1

Singh, N., Chakrabarti, N., & Tripathi, R. (2024a). Fashion clothing interest and purchase intention of young women consumers of India. *Navus - Revista de Gestão e Tecnologia*, *14*, 1–20. https://doi.org/10.22279/NAVUS.V13.1814

Singh, N., Chakrabarti, N., & Tripathi, R. (2024b). *Fashion clothing interest and purchase intention of young women consumers of India*. https://www.researchgate.net/publication/380853823_Fashion_clothing_interest_and_purchase_intention_of_young_women_consumers_of_India

Singh, R., & Pathak Supriya, D. (2021). ONLINE SHOPPING IN LUCKNOW: A STUDY OF WOMEN CONSUMER BUYING BEHAVIOR WITH REFERENCE TO CLOTHING WEAR. || *ISO*, *6*. https://doi.org/10.51397/OAIJSE03.2021.0009

Sobuj, M., Khan, A. M., Habib, M. A., & Islam, M. M. (2021). Factors influencing eco-friendly apparel purchase behavior of Bangladeshi young consumers: case study. *Research Journal of Textile and Apparel*, *25*(2), 139–157. https://doi.org/10.1108/RJTA-10-2019-0052/FULL/XML

Solaiman, M., & Rana, S. M. S. (2023). Perceived consumer effectiveness, eco-knowledge and green purchase behaviour: a study on environment friendly and energy

efficient electronic products market. *International Journal of Business Environment*, *14*(2), 119–144. https://doi.org/10.1504/IJBE.2023.129900

Soni, S., Sharma, B. K., Mishra, S., & Sharma, H. (2024). Technology influence on purchase intention with respect to luxury fashion. *International Journal of Indian Culture and Business Management*, *32*(1), 98–113. https://doi.org/10.1504/IJICBM.2024.139001

Srividya, N., Atiq, R., & Volety, N. S. (2024). Qualitative research on responsible consumption concerning apparel. *Cleaner and Responsible Consumption*, *12*, 100178. https://doi.org/10.1016/J.CLRC.2024.100178

State of Matter. (2023). *Sustainable Fashion Trends: The Best Eco-Friendly Practices for 2023 - State of Matter Apparel*. https://stateofmatterapparel.com/blogs/som-blog/sustainable-fashion-trends-the-best-eco-friendly-practices-for-2023

Stella McCartney. (2019). *"Sustainable Luxury Fashion"* . https://www.stellamccartney.com/gb/en/

Stern, P. C. (2000). Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, *56*(3), 407–424. https://doi.org/10.1111/0022-4537.00175;SUBPAGE:STRING:ABSTRACT;JOURNAL:JOURNAL:15404560;WEBSITE:WEBSITE:SPSSI;WGROUP:STRING:PUBLICATION

Strack, F., & Deutsch, R. (2004). Reflective and impulsive determinants of social behavior. *Personality and Social Psychology Review*, *8*(3), 220–247. https://doi.org/10.1207/S15327957PSPR0803_1;SUBPAGE:STRING:ABSTRACT;REQUESTEDJOURNAL:JOURNAL:PSRA;WEBSITE:WEBSITE:SAGE;WGROUP:STRING:PUBLICATION

Su, J., Iqbal, M. A., Haque, F., & Akter, M. M. K. (2023). Sustainable apparel: a perspective from Bangladesh's young consumers. *Social Responsibility Journal*, *19*(9), 1654–1670. https://doi.org/10.1108/SRJ-01-2022-0035/FULL/XML

Sudbury-Riley, L., & Kohlbacher, F. (2016). Ethically minded consumer behavior: Scale review, development, and validation. *Journal of Business Research*, *69*(8), 2697–2710. https://doi.org/10.1016/J.JBUSRES.2015.11.005

Sudha, M., & Sheena, K. (2017). *Impact of Influencers in Consumer Decision Process: the Fashion Industry*.

Taufique, K. M. R. (2022). Integrating environmental values and emotion in green marketing communications inducing sustainable consumer behaviour. *Journal of Marketing Communications*, *28*(3), 272–290. https://doi.org/10.1080/13527266.2020.1866645

Taufique, K. M. R., Sabbir, M. M., Quinton, S., & Andaleeb, S. S. (2024). The different impact of utilitarian and hedonic attributes on web-based retail shopping behaviour through the lens of extended technology acceptance model. *International Journal of Retail and Distribution Management*, *52*(4), 443–460. https://doi.org/10.1108/IJRDM-08-2023-0505/FULL/XML

Taufique, K. M. R., & Vaithianathan, S. (2018). A fresh look at understanding Green consumer behavior among young urban Indian consumers through the lens of Theory of Planned Behavior. *Journal of Cleaner Production*, *183*, 46–55. https://doi.org/10.1016/J.JCLEPRO.2018.02.097

Taufique, K. M. R., Vocino, A., & Polonsky, M. J. (2017). The influence of eco-label knowledge and trust on pro-environmental consumer behaviour in an emerging market. *Journal of Strategic Marketing*, *25*(7), 511–529. https://doi.org/10.1080/0965254X.2016.1240219

Textile Exchange. (2021a). *Market Report on Organic Cotton*. https://textileexchange.org/

Textile Exchange. (2021b). *Preferred Fiber and Materials Market Report*. https://textileexchange.org/

Textile Exchange. (2021c). *Textile Exchange Preferred Fiber and Materials Market Report 2021 - Textile Exchange*. https://textileexchange.org/news/textile-exchange-preferred-fiber-and-materials-market-report-2021/

The Business of Fashion. (2022). *The BoF Sustainability Index 2022 - BoF INSIGHTS*. https://insights.businessoffashion.com/products/the-bof-sustainability-index-2022

The Economic Times. (2024). *Fabindia collaborates with MoMSME to promote products of artisans - The Economic Times*. https://economictimes.indiatimes.com/industry/cons-products/garments-/-textiles/fabindia-collaborates-with-momsme-to-promote-products-of-artisans/articleshow/113291743.cms?from=mdr

The Indian Market Research Bureau. (2022). *Welcome to IMRB*. https://www.imrbint.com/

The Sustainable Brands Journal. (2022). *Unveiling the Rise and Challenges of Sustainable Fashion in India*. https://thesustainablebrandsjournal.com/sustainable-fashion-india/

Thøgersen, J. (2014). Unsustainable Consumption. *Https://Doi.Org/10.1027/1016-9040/A000176*, *19*(2), 84–95. https://doi.org/10.1027/1016-9040/A000176

Tran Xuan, Q., Truong, H. T. H., & Vo Quang, T. (2023). Omnichannel retailing with brand engagement, trust and loyalty in banking: the moderating role of personal innovativeness. *International Journal of Bank Marketing*, *41*(3), 663–694. https://doi.org/10.1108/IJBM-07-2022-0292/FULL/XML

Tryphena, R., & Aram, I. A. (2023). Consumer perception on sustainable clothing among urban Indians. *Journal of Engineered Fibers and Fabrics*, *18*. https://doi.org/10.1177/15589250231168964/ASSET/IMAGES/LARGE/10.1177_15589250231168964-FIG1.JPEG

UNEP. (2023). *Sustainability and Circularity in the Textile Value Chain - A Global Roadmap | UNEP - UN Environment Programme*. https://www.unep.org/resources/publication/sustainability-and-circularity-textile-value-chain-global-roadmap

United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development*. https://www.un.org/sustainabledevelopment/

United Nations. (2020). *SDG 12: Responsible Consumption and Production, Sustainable Development Goals Report.* https://unstats.un.org/sdgs/report/2020/

Upasana. (2019). *"Sustainable Fashion Projects."* https://www.upasana.in/

V, S., & Babu, R. (2020). A Study on Women Consumers Attitudes towards Green Marketing. *Journal of International Women's Studies*, *21*(5). https://vc.bridgew.edu/jiws/vol21/iss5/5

Van Trijp, H. C. M., Hoyer, W. D., & Inman, J. J. (1996). Why switch? Product category-level explanations for true variety-seeking behavior. *Journal of Marketing Research*, *33*(3), 281–292. https://doi.org/10.1177/002224379603300303;WEBSITE:WEBSITE:SAGE;WGROUP:STRING:PUBLICATION

Vermeir, I., & Verbeke, W. (2008). Sustainable food consumption among young adults in Belgium: Theory of planned behaviour and the role of confidence and values. *Ecological Economics*, *64*(3), 542–553. https://doi.org/10.1016/J.ECOLECON.2007.03.007

Voukkali, I., Papamichael, I., Loizia, P., Economou, F., Stylianou, M., Naddeo, V., & Zorpas, A. A. (2024). Fashioning the Future: Green chemistry and engineering innovations in biofashion. *Chemical Engineering Journal*, *497*, 155039. https://doi.org/10.1016/J.CEJ.2024.155039

Wei, L. S., Chin, T. A., Masod, A., & Mohamad, N. S. (2022). The Role of Pricing and Product Knowledge on Malaysian Consumers Green Purchase Intention. *International Journal of Academic Research in Business and Social Sciences*, *12*(7). https://doi.org/10.6007/IJARBSS/V12-I7/13336

Whitehead, A. L., Julious, S. A., Cooper, C. L., & Campbell, M. J. (2016). Estimating the sample size for a pilot randomised trial to minimise the overall trial sample size for the external pilot and main trial for a continuous outcome variable. *Statistical Methods in Medical Research*, *25*(3), 1057–1073. https://doi.org/10.1177/0962280215588241

Wiederhold, M., & Martinez, L. F. (2018). Ethical consumer behaviour in Germany: The attitude-behaviour gap in the green apparel industry. *International Journal of Consumer Studies*, *42*(4), 419–429. https://doi.org/10.1111/IJCS.12435

Wolfe, I. (2024). *10 Clothing Brands From India Making Waves in Responsible Fashion - Good On You*. https://goodonyou.eco/sustainable-brands-from-india/

Workman, J. E., & Caldwell, L. F. (2007). Centrality of visual product aesthetics, tactile and uniqueness needs of fashion consumers. *International Journal of Consumer Studies*, *31*(6), 589–596. https://doi.org/10.1111/J.1470-6431.2007.00613.X

Workman, J. E., & Kidd, L. K. (2000). Use of the need for uniqueness scale to characterize fashion consumer groups. *Clothing and Textiles Research Journal*, *18*(4), 227–236. https://doi.org/10.1177/0887302X0001800402;PAGE:STRING:ARTICLE/CHAPTER

Workman, J. E., & Lee, S.-H. (2024). Differences in the Big Five Personality Traits and Innate Innovativeness among Fashion Innovativeness Groups. *International Textile and Apparel Association Annual Conference Proceedings*, *80*(1). https://doi.org/10.31274/ITAA.17354

Wu Yingying, & Islam Mayedul. (2022). An exploratory eye-tracking study of consumers online purchasing behaviors of sustainable apparel products. *International Textile and Apparel Association Annual Conference Proceedings*.

Wyrwa, J., Barska, A., Jędrzejczak-Gas, J., & Kononowicz, K. (2023). Sustainable Consumption in the Behavior of Young Consumers. *European Journal of Sustainable Development*, *12*(3), 349. https://doi.org/10.14207/EJSD.2023.V12N3P349

Xiao, J., Yang, Z., Li, Z., & Chen, Z. (2023). A review of social roles in green consumer behaviour. *International Journal of Consumer Studies*, *47*(6), 2033–2070. https://doi.org/10.1111/IJCS.12865

Xu, W., Jia, F. (Jeff), Chen, L., & Schoenherr, T. (2024). Editorial: Sustainable transition in textile and apparel industry. *Journal of Cleaner Production*, *443*, 141081. https://doi.org/10.1016/J.JCLEPRO.2024.141081

Yadav, N., & Sahoo, P. (2024). Employment Status of Women in the Power Loom Sector: A Case Study of Varanasi, Uttar Pradesh. *Informal Economy and Sustainable Development Goals: Ideas, Interventions and Challenges*, 317–333. https://doi.org/10.1108/978-1-83753-980-220241017

Yang, J., Al Mamun, A., Reza, M. N. H., Yang, M., & Aziz, N. A. (2024a). Predicting the significance of consumer environmental values, beliefs, and norms for sustainable fashion behaviors: The case of second-hand clothing. *Asia Pacific Management Review*, *29*(2), 179–194. https://doi.org/10.1016/J.APMRV.2024.01.001

Yoo, F., Jung, H. J., Oh, K. W., Yoo, F. ;, Jung, H. J. ;, & Oh, K. W. (2021). Motivators and Barriers for Buying Intention of Upcycled Fashion Products in China. *Sustainability 2021, Vol. 13, Page 2584*, *13*(5), 2584. https://doi.org/10.3390/SU13052584

Youth_in_India_2022. (2022). https://mospi.gov.in/sites/default/files/publication_reports/Youth_in_India_2022.pdf

Zelezny, L. C., Chua, P. P., & Aldrich, C. (2000). Elaborating on gender differences in environmentalism. *Journal of Social Issues*, *56*(3), 443–457. https://doi.org/10.1111/0022-4537.00177

Zhang, Y. (2022). Variety-Seeking Behavior in Consumption: A Literature Review and Future Research Directions. *Frontiers in Psychology*, *13*, 874444. https://doi.org/10.3389/FPSYG.2022.874444/BIBTEX

Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis. *Journal of Consumer Research*, *37*(2), 197–206. https://doi.org/10.1086/651257

Zhao, Z., Gong, Y., Li, Y., Zhang, L., & Sun, Y. (2021). Gender-Related Beliefs, Norms, and the Link With Green Consumption. *Frontiers in Psychology*, *12*. https://doi.org/10.3389/FPSYG.2021.710239

Ziyadin, S., Doszhan, R., Borodin, A., Omarova, A., & Ilyas, A. (2019). The role of social media marketing in consumer behaviour. *E3S Web of Conferences*, *135*. https://doi.org/10.1051/e3sconf/201913504022

APPENDICES

QUESTIONNAIRE

I am **Aditi Chaudhary**, a Ph.D. research scholar at the Mittal School of Business at Lovely Professional University. I am conducting **"An Empirical Study on Green Apparel Buying Behavior Among Youth Females with Special Reference To Uttar Pradesh"** under the guidance of **Dr. Shabnam Gulati**. In this regard, your assistance is required in filling out the questionnaire. I assure you that your responses will be used for academic purposes only, and the privacy of your responses will be maintained. Thank you in advance for your cooperation.

Title: An Empirical Study on Green Apparel Buying Behavior Among Youth Females with Special Reference To Uttar Pradesh

Objectives:

1. To investigate the relationship between physical product attributes and attitude on green apparel buying behavior.
2. To examine the direct and indirect impact of fashion consciousness, variety seeking behavior and consumer innovativeness through environmental concern on green apparel buying behavior among youth females.
3. To investigate the moderating effect of demographic variable (age) between environmental concern and green apparel buying behavior.

Section A: Demographic Profile	
1.	Name:
2.	Age (Years) a. 15 – 19 ☐ b. 20 – 24 ☐ c. 25 – 29 ☐
3.	Marital Status a. Married ☐ b. Unmarried ☐
4.	Education qualifications: a. 10th ☐ b. 12th ☐ c. Graduate ☐ d. Postgraduate ☐ e. Doctorate ☐ f. Other ☐ Kindly specify if other: …….
5.	Occupation: a. Student ☐ b. Private job ☐ c. Government job ☐ d. Self-employed ☐

6.	Locations a. Meerut ☐ b. Ghaziabad ☐ c. Aligarh ☐ d. Agra ☐ e. Bareilly ☐ f. Lucknow ☐ g. Kanpur ☐ h. Allahabad ☐ i. Gorakhpur ☐ j. Varanasi ☐
7.	Household Income (monthly INR) a. Below 20,000 ☐ b. INR 20,001 – 40,000 ☐ c. INR 40,001 – 60,000 ☐ d. INR 60,001 – 80,000 ☐ e. Above 80,001 ☐
8.	Please select the green apparel brand that you used: a. Allen Solly ☐ b. Fab India ☐ c. Levi's ☐ d. United Colors of Benetton ☐ e. Van Heusen ☐ f. Arrow ☐ g. Woodland ☐
9.	Please specify the duration of usage of the green apparel a. 0-6 months ☐ b. 6 months – 1 year ☐ c. 1 year – 2 years ☐ d. 2 years and above ☐

Section B

Please provide your response by putting tick mark in front of the given statements on the scale of 1-5, where 1 represents strongly disagree and 5 represents strongly agree. Please ensure to select only one option from each statement.

S. No.	Statements	1	2	3	4	5
Fashion Consciousness						
1.	During shopping, I like to spend more time choosing the latest green apparel.					
2.	Most probably, I am having more than one of the newest style green apparel.					
3.	I enjoy purchasing new and attractive green apparel.					
4.	I always keep myself up-to-date with the latest fashion trends in green apparel.					
5.	Green apparel is trendy.					
6.	Fashionable and attractive clothing is necessary for me.					
Variety-Seeking Behavior						
1.	While shopping, I found myself spending lot of time in checking out new green apparel.					

2.	I like to visit places where I will get information about new green apparel.					
3.	I am continually seeking new designs in green apparel.					
4.	I switch to another green apparel brand if it doesn't meet my expectations.					
5.	I frequently look for new green apparel brands.					
6.	I like to experience novelty in green apparel.					
Physical Product Attributes						
1.	Green apparel is more comfortable than conventional apparel.					
2.	I buy green apparel that has less weight and is easy to carry.					
3.	Green apparel is made of good quality fabric.					
4.	Green apparel fits in size and shape.					
5.	While purchasing green apparel, I look for the latest design.					
6.	Green apparel is made from recycled material.					
Consumer Innovativeness						

1.	I usually buy new green apparel before other people know it exists.					
2.	I would like to be the first to buy green apparel.					
3.	I am eager to buy green apparel as soon as they are available in stores.					
4.	I eagerly wait for the launch of trendy green apparel.					
5.	I often visit the store to see if new green apparel is out.					
6.	I need to become the first person to purchase new green apparel.					
Attitude						
1.	I think it is very necessary to go for green apparel.					
2.	Buying green apparel makes me satisfied and happy.					
3.	I am in favor of buying green apparel.					
4.	I think choosing green apparel instead of conventional apparel is a good idea.					
5.	Using green apparel is beneficial for me.					
6.	Buying green apparel will help in saving nature and resources.					

Environmental Concern						
1.	Being an environmentally concerned person, I think purchasing green apparel is a wise idea.					
2.	I believe green apparel will help in the preservation of nature and wildlife.					
3.	Using green apparel will help in reducing the wasteful use of natural resources.					
4.	By purchasing green apparel, we are protecting our environment.					
5.	I buy green apparel as protecting the environment is my major concern.					
6.	I think using green apparel is the major change required to save the natural environment.					
Green Apparel Buying Behavior						
1.	I buy apparel made of organically grown natural fiber.					
2.	I purchase apparel with eco-labels and eco-packaging.					
3.	I buy apparel made from recycled material.					
4.	I prefer to buy green apparel with low impact or no dye processing.					

5.	I buy green apparel even if they are more expensive than conventional apparel.					
6.	I prefer buying green apparel as they are environmentally friendly.					

Thank You

Warm Regards

Aditi Chaudhary

LIST OF PUBLICATIONS

S. No.	Title of the Paper	Authors	Status	Journal Indexing	Type of Paper	Name of journal	Scimago Rank
1.	From Fabric to Fashion: How Physical Product Attributes and Attitude Influence Green Apparel Buying Behavior	Aditi Chaudhary Shabnam Gulati	Published	Scopus	Research	Journal of Digital Economy	Q1
2.	Green Marketing: New Trends And Business Strategies In India	Aditi Chaudhary Shabnam Gulati	Published	Scopus	Review	Library Progress International Journal	Q4
3.	Data-driven Decisions Harnessing Data For Competitive Advantage In The Apparel Industry	Aditi Chaudhary Shabnam Gulati	Published		Book Chapter		
4.	Integrating Marketing: The Convergence Of Artificial Intelligence, Digital Technology And Innovative Marketing In The Apparel Industry	Aditi Chaudhary Shabnam Gulati	Published		Book Chapter		