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Conflict of Interest
The author (s) declared no conflict of interest and have not received any funds for the project.

Antecedents to attitudes toward Green buying and the Moderating Role of Green Efficacy

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Abstract

Compared to developed countries, environmental concerns in Pakistan are increasing slowly. Besides other factors, "social norms (SNs) and cultural values (CVs)" have significantly affected attitudes toward green buying (ATGB). However, by extending the "Theory of Planned Behavior," we developed five direct and two moderating hypotheses." We "focused on the textile sector as "it significantly contributes towards employment generation and GDP." The "study found that perceived behavior control (PBC) and collectivism (CLT) positively affect attitudes towards green buying." The study also documents that "social norms (SNs) negatively affect attitude towards green buying. Its direction is negative, contrary to the envisaged positive relationship. Individualism (IND) insignificantly affects attitudes towards green buying." Moreover, it documents that attitude towards green buying positively affects green purchase intention (GPI)." Regarding moderating relationships, we found "green efficacy moderates (i) individualism (IND) and attitudes towards green buying (ATGB), and (ii) collectivism (CLT) and attitude towards green buying (ATGB).

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Keywords: *Green purchase intention, attitudes toward green buying, individualism and collectivism, green efficacy, and Theory of Planned behavior.*

Introduction

Past literature on sustainable products emphasizes the importance of green attitudes and purchase intention, which cannot be overstated (Ng et al., 2024). Moreover, researchers argue that it is essential to create an environment of conservation by reducing carbon footprint, conserving natural resources, and minimizing waste (Sharma et al., 2023; Ng et al., 2024). Ali et al. (2023) assert that such an environment motivates businesses to adopt sustainability practices, an essential precursor to a sustainable environment. Furthermore, adopting sustainable practices allows firms to develop innovative green products. As a result, firms achieve sustainable growth and a "competitive advantage" (Akram et al., 2024). A high Green purchase attitude in a country has several benefits. It promotes a sustainable environment and significantly increases consumer awareness towards environmentally friendly products (Ali et al., 2023). Moreover, it increases the demand for environmentally friendly products. As a response, firms market new innovative green products that contribute to economic growth and development. Based on the above discussions, we argue that firms that do not adopt sustainable practices may not survive (Sharma et al., 2023). We also assert that firms can enhance their reputations by adopting corporate social responsibility (Akram et al., 2024).

In Pakistan, consumers' attitudes toward green buying (ATGB) are not encouraging compared to developed countries (Sharma et al., 2023). Many factors have contributed to this attitude. For example, due to low demand, firms are not producing green products (Ali et al., 2023). Therefore, the prices of green products are significantly higher than conventional products (Rasheed et al., 2024). Furthermore, the perception of Pakistani consumers (Sharma et al., 2023) is that the quality of green products is "inferior to conventional products." Apart from other challenges, the policymakers in Pakistan must focus on changing consumers' attitudes toward green products. This will promote "green purchase intention and green buying behavior." Given the above discussions, the study has examined:

1. The impact of "social norms (SNs), perceived behavior (PB) individualism (IND) and collectivism (CLT) on attitude towards green buying (ATGB)."

2. The effect of attitude towards green buying behavior (ATGB) on green purchase intention (GPI).

3. The moderating "effect of green efficacy between green individualism (IND) and attitude toward green buying (ATGB) and (ii) green collectivism (CLT) and attitude towards green attitude (ATGB)."

Literature Review

Theoretical Undergrounding

Many past studies have used the Theory of Planned Behavior in different domains, including green products. The theory postulates, "Green subjective norms (GSN) and green perceived behavior control (GPBC) promote consumers' green attitudes (GAs)." (Tunji-Olayeni et al., 2024). Moreover, studies also assert that green "subjective norms (GSN), green attitudes (GA)," and green behavior control (GBC) "affect green purchase intention (GPI) and green buying behavior (GBB)" (Gansser & Reich, 2023). Green buying behavior (GBB) is consumers' actual green buying behavior (GBB) that depends on green purchase intention (GPI) (Buhmann et al., 2024). Green purchase intention (GPI) is consumers' intention to buy green products shortly (Asif et al., 2023). Green attitudes (GA) are a consumer's long-term perception of sustainable products, which significantly depends on many factors, including cultural and social values (Kamalanon et al., 2022). Green subjective norms (GSN) significantly depend on green culture, family, and peers' attitudes toward sustainable products (SPS) (Girish et al., 2024). Besides other challenges, marketers' biggest challenge is ensuring that "green purchase intention (GPI) translates into green buying behavior (GBB)" (Ogiemwonyi et al., 2022).

Conceptual Framework

A conceptual framework shows all the envisaged relationships. The "conceptual framework presented in Figure 1 shows it has five direct and two moderating relationships."

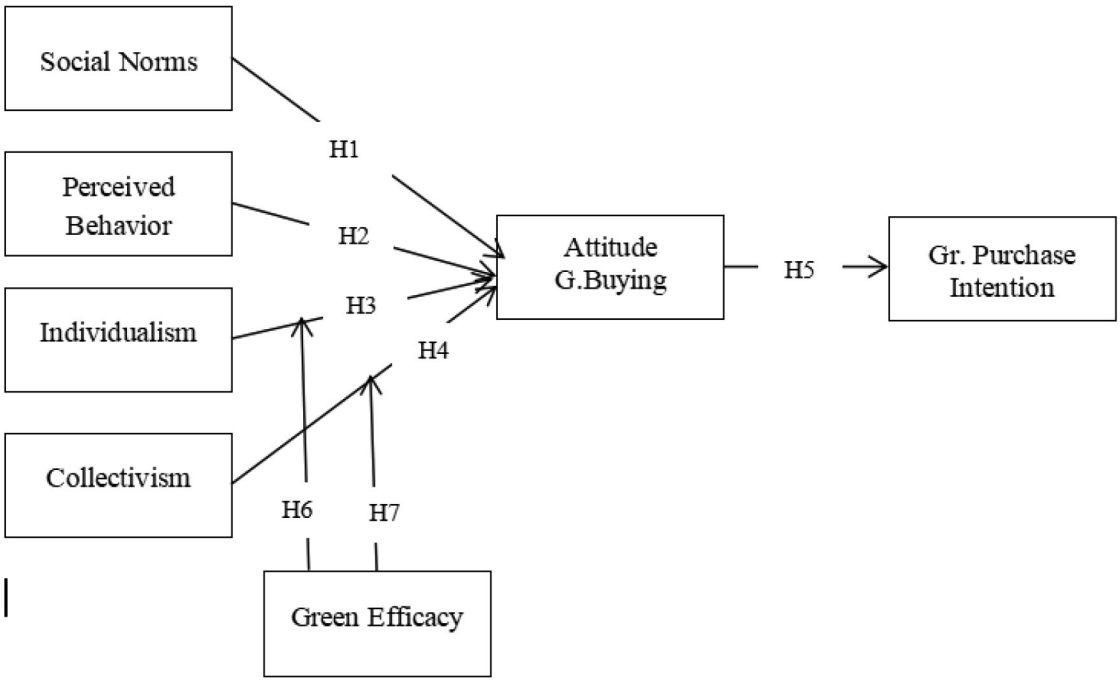

Figure 1: Conceptual Framework

Green Purchase Intention in the Context of Pakistan

According to Akram et al. (2024), green purchase intention (GPI) is "consumers' intention (CI) of buying sustainable goods and services shortly." In Pakistan, consumers' green purchase intention (GPI) compared to other countries is low (Rasheed et al., 2024). Marwat (2023) asserts that, besides other factors, low education levels and economic conditions have contributed to low green purchase intention (GPI) in Pakistan (Mahasan et al., 2024). Moreover, researchers believe that if consumers' friends and families have positive attitudes toward sustainable products, they would also have positive attitudes toward green purchase intention (GPI) (Salam et al., 2022). On the other hand, if consumers' families and friends have poor attitudes toward sustainable products, they would have negative attitudes towards green purchase intention (GPI) (Iqbal et al., 2023). Past studies document that Pakistan's cultural and social values are not very positive towards environmentally friendly products (Tariq & Gill, 2024). As a result, Pakistani consumer green purchase intention is low (Mahasan et al., 2024).

Attitude towards Green Buying Behavior in the Context of Pakistan

Attitude toward green buying (AGB) is consumers' long-term mindset about sustainable products (SPs) (Channa et al., 2022). Many antecedents to attitude toward

green buying (AGB) exist, including religiosity and social values (Shah et al., 2022). Extant literature documents that Pakistani consumers have become more concerned about environmental sustainability in recent years (Channa et al., 2022). Studies also cite that young Pakistani consumers are more concerned about environmental sustainability than older ones (Jabeen et al., 2023). Supporting this citation, we believe the young generation interacts with consumers worldwide whose perception of being environmentally friendly is high (Iqbal et al., 2023). Moreover, the young generation in Pakistan, compared to the old generation, is more accepting of new ideas (Channa et al., 2022). Furthermore, we believe that policymakers in Pakistan focus on enhancing the educational level and economic conditions to increase attitudes toward green buying (ATGB) (Shah et al., 2022; Rasheed et al., 2024).

Social Norms in the Context of Pakistan

Social norms (SNs) are an essential predictor of consumers' attitudes and behavior (Abbas et al., 2024). Besides other factors, families, peers, and friends are sub-dimensions of social norms (SNs) (Raza & Farrukh, 2023). The effect of social norms (SNs) on attitudes and behaviors is inconsistent in all cultures. Its effect is more significant in a dualistic culture like Pakistan than in an individualistic one (Jabeen & Khan, 2022). Consumers adopt a sustainability environment attitude if their social norms (SNs) support it (Asif et al., 2023). Studies cite that in countries like Pakistan, consumers have a low attitude toward green buying (ATGB) because their social norms (SNs) do not support environmentally friendly behavior (Rasheed et al., 2024). Similarly, we argue that those consumers adopt environmentally sustainable behavior whose families and friends support it (Majeed et al., 2022). We also believe that social norms (SNs) do not change quickly. Therefore, the policymakers of Pakistan, in order to align the social norms (SNs) with green behavior, must develop long-term policies. It may include collaborating with influential group members and educational and social institutions (Abbas et al., 2024).

Perceived Behavior Control in the Context of Pakistan

Perceived behavior control (PBS) in the context of green sustainability enables individuals to adopt green sustainability (Hassan et al., 2024). Individuals in Pakistan with strong perceived control behavior (PCB) and a higher inclination towards sustainable products would go out of their way to buy green products (Abbas et al., 2024). They would not worry about the higher cost of such products and may search where they are available (Raza & Farrukh, 2023). In contrast, individuals with low perceived behavior control (PBC) would buy environmentally friendly products if they were readily available at affordable prices (Majeed et al., 2022). Extending the above discussions, we argue that individuals with high perceived behavior control (PBC) and a higher inclination toward sustainable environments would form their green buying decisions based on

their values, irrespective of the values of family and friends (Abbas et al., 2024).

Individualism

In contrast to collectivists (CLTs), individualists (INDs) focus on their "freedom, autonomy, and self-expression" (Abbas et al., 2024). When buying conventional or green products, individualists are not concerned about their families and friends' attitudes (Majeed et al., 2022). Individualists can have a positive or negative attitude toward environmentally friendly products (Lin et al., 2023). Thus, if individualists are strongly inclined towards a sustainable environment, they would develop positive attitudes towards sustainable products (Afridi et al., 2024), irrespective of the perception of their families and friends (Latif et al., 2022). On the other hand, if individualists do not value a sustainable environment, they would develop negative attitudes towards environmentally friendly products (Shah et al., 2024). In Pakistan or the world over, individualists may not purchase environmentally friendly products as they prioritize price, conveniences, and personal benefits over environmental sustainability (Raza & Farrukh, 2023).

Collectivism

In contrast to individualists (INDs), collectivists (CLTs) promote group harmony, interdependence, and collective well-being over individual interests (Majeed & Rasheed, 2024). Thus, collectivists in a society align their decisions with the social values of the society and friends (Ur-Rahman et al., 2023). Thus, if collectivists find conflicts in their decisions and the values of society and family, they would sacrifice their decisions (Saqib et al., 2024). In the context of sustainable products, studies highlighted that collectivists, irrespective of their values, would adopt sustainable behavior if the society believes in it (Khan et al., 2024). On the other hand, despite their strong belief in sustainable products, collectivists would not buy them if they conflict with society and family norms (Majeed & Rasheed, 2024).

Green Efficacy

Green efficacy is individuals' belief in contributing to a sustainable environment (Nisar et al., 2024). Thus, when consumers in Pakistan feel their choices can make a difference in society, they adopt green, sustainable practices (Anwar et al., 2022). Extending these discussions, we argue that individuals with green efficacy believe that adopting sustainable environmental practices would motivate others to adopt the same. They also believe it would have a ripple effect leading to widespread positive change toward green sustainability (Hafeez et al., 2024).

Hypothesis Development

Social Norms and Attitude Towards Green Buying

Extant literature documents that when individuals' families and friends have a positive attitude towards green buying (ATGB), they adopt the same behavior (Rasheed et al., 2024). In this context, Salam et al. (2022) highlighted that social norms (SNs) aligned with sustainable practices can override individuals' preferences, leading to positive attitudes towards green buying (ATGB) (Asif et al., 2023). However, social norms (SNs) in collective societies like Pakistan shape consumers' attitudes toward green buying (ATGB) (Mansoor et al., 2022). Thus, we argue that if the social norms (SNs) of society align with sustainable practices, it will motivate consumers to have positive attitudes toward green buying (ATBGB) (Shah et al., 2024). On the other hand, if the social norms (SNs) of society contradict sustainable environmental practices, it will discourage consumers from having a positive attitude toward green buying (ATGB) (Channa et al., 2022).

H1: Social norms (SNs) "positively affect attitude toward green buying (ATGB)."

Perceived Behavior and Attitude towards Green Buying

Researchers argue that perceived behavior control(PBC) refers to consumers' ability to control their behavior in the context of green and conventional products (Hassan et al., 2024). Thus, when consumers control their choices, they may adopt a positive or negative attitude toward green buying (Asif et al., 2023). These negative or positive attitudes depend on their social orientation toward sustainable practices (Majeed et al., 2022). Individuals with a high orientation towards green practices would develop positive attitudes toward green buying (ATGB) (Raza & Farrukh, 2023). In contrast, individuals with a low orientation towards green practices would develop negative attitudes toward green buying (ATGB) (Asif et al., 2023).

H2: Perceived behavior (PB) "positively affects attitudes toward green buying (ATGB)."

Individualism and Attitude towards Green Buying

Like Pakistan, all countries, despite being collectivists or individualists, have segments of individualists and collectivists (Rasheed et al., 2024). Raza & Farrukh (2023) assert that the individualist segment in Pakistan prefers their benefits and autonomy (Shah et al., 2024). If they feel that green products are not beneficial, they will develop negative attitudes toward green buying (ATGB) (Salam et al., 2022). In contrast, individualists in Pakistan may have a positive attitude toward green buying (ATGB) if they believe they may benefit from improved health and increased social status (Asif et al., 2023).

H3: Individualism (IND) "positively affects attitudes toward green buying (ATGB)."

Collectivism and Green Buying Behavior

Researchers have categorized Pakistan as a collectivist society (Majeed & Rasheed, 2024). Thus, most individuals in this country sacrifice their personal goals and ambitions to align with society and family values (Qureshi et al., 2023). Thus, when individuals believe that society and families support green practices, they adopt positive attitudes toward green buying (ATGB) (Zahra et al., 2022). However, "when individuals believe their society and family" do not support sustainable practices, they adopt a negative attitude towards green buying (ATGB) (Farooqi & Frooghi, 2024).

H4: Collectivism (CLT) "positively affects attitudes toward green buying (ATGB)."

Attitude towards Green Buying and Green Purchase Intention

The Theory of Planned Behavior postulates that attitude is an "essential precursor of purchase intention (PI)" (Salam et al., 2022). Extending this argument to sustainable products, we argue that a positive attitude towards green buying (ATGB) significantly influences green purchase intention (GPI) (Iqbal et al., 2023). Moreover, when consumers hold a favorable attitude towards green buying (ATGB), they adopt a green purchase intention (GPI), leading to green buying behavior (Rasheed et al., 2024). We "believe that individuals with a high orientation toward sustainable practices" are not reluctant to pay high prices for sustainable products (Channa et al., 2022). We also believe such consumers adopt green products despite knowing green products are inferior to conventional products (Jabeen et al., 2023).

H5: Attitudes toward green buying (ATGB) "positively affects green purchase intention (GPI)."

Individualism, Self-Efficacy, and Green Attitude towards Green Buying

Extant literature highlights that consumers with high green self-efficacy (GSE) believe they can contribute by changing society's attitudes toward green buying (Zhang et al., 2024). Past studies have highlighted that green self-efficacy (GSE) increases the effect size between individualism (IND) and attitude toward green buying (ATGB) relationship (Ahmed & Islam, 2023). On the other hand, other studies highlight that green efficacy (GSE) decreases the effect size between individualism (IND) and attitude toward green buying (ATGB) relationship (Zhang et al., 2024; Iqbal et al., 2023).

H6: Green self-efficacy (GSE) "moderates the relationship between individualism (IND) and green purchase intention (GPI)."

Collectivism, Green Self-Efficacy, and Green Attitude towards Green Buying

Extant literature stresses that green self-efficacy (GSE) has a positive effect on the relationship between collectivism (CLT) and attitude towards green buying (ATGB) (Moazzam et al., 2023). On the other hand, other researchers believe self-efficacy (GSE) adversely affects the relationship between collectivism (CLT) and attitude towards green buying (ATGB) (Yasir et al., 2022).

H7: Green self-efficacy (GSE) "moderates the relationship between collectivism (CLT) and attitude towards green buying (ATBGB)."

Methodology

Research Design

A research design has a multi-dimensional approach (Creswell, 2019). It may include survey research to measure consumers' intentions, attitudes, and behaviors (Sekaran & Bougie, 2020). Additionally, researchers could use regression analysis to analyze existing data and identify envisaged relationships (Zikmund et al., 2020). However, researchers can adopt a longitudinal study to track consumers' purchase intentions over time (Saunders et al., 2019). Alternatively, they may adopt a cross-sectional approach where researchers collect data from the respondents once. The researchers also have the option of adopting mixed methodology or quantitative research. This study has adopted a quantitative and cross-sectional approach.

Population and Sample Size

The study focused on Pakistan's textile sector, which employs 45% of the country's total labor force (Akhuand & Abbas, 2023). Besides generating significant export revenue, its contribution to GDP is about 8.5% (Mahasan et al., 2024). The diverse industry includes "cotton, synthetic fibers, filament yarn, artificial silk, wool, and jute" (Akhuand & Abbas, 2023). Based on the population of 25 million, we estimated that a "minimum sample size of 387 would be appropriate for the study." We collected the data online by displaying the link in different social media forums related to the textile sector. We received 427 valid questionnaires.

Scale and Measures

Scales and measures are fundamental to research. They allow researchers to quantify responses for data analysis and results (Sekaran & Bougie, 2020). The study used the Five-Point Likert Scale to measure the responses. Five "showed a high agreement, and one suggested a low agreement." Table 1 summarizes the study's scales and measures.

Table 1: Scale and Measures

Constructs	Sources	Reliability in Past studies	Nos. Items
Green Purchase Intention(GPI)	Akram et al. (2024)	0.715 to 0.860	10
Green Attitude	Channa et al., 2022)	0.735 to 0.869	10
Social Norms (SNs)	Abbas et al. (2024)	0.787 to 0.878	10
Perceived Behavior (PB)	Hassan et al. (2024)	0.701 to 0.887	10
Individualism (IND)	Majeed et al. (2022)	0.745 to 0.897	10
Collectivism (CLT)	Majeed et al. (2022)	0.799 to 0.899	10
Green Self Efficacy (GSE_	Hafeez et al. (2024)	0.705 to 0.877	06

Pilot Test

Researchers suggest conducting a pilot test in large-size studies to ensure the integrity and validity of the study (Zikmund et al., 2020). We recruited five graduate students for the pilot study. It took them 45 minutes to complete the survey form. They also reported no issue with the content and wording of the narration used in the questionnaire. The reliability values based on the pilot test were also within the acceptable range.

Statistical Analysis

Different "software, including SPSS and Smart PLS, are available for statistical analysis." Both have advantages and disadvantages (Radomir & Ringle, 2022). We chose Smart PLS for data analysis. It is convenient and can solve complex relationships simultaneously (Sarstedt et al., 2022).

Results

Respondents Profile

It is a convention in research studies to present the respondent's profile, whether or not the study has used it for statistical analysis (Sekaran & Bougie, 2020). It allows researchers to compare it with other studies in the same domain. Table 2 shows the respondents' profiles.

Table 2: Demographic Profile

Demographic	Category	Percentage
Gender	Male	57%
	Female	44%
Marital Status	Single	43%
	Married	54%
	Divorced	10%
Age	Up to 20 Years	37%
	21 to 30 Years	33%
	31 to 40 Years	20%
	41 to 50 Years	10%
	51 Plus Years	
Education level	Martic	12%
	Inter	35%
	Diploma	
	Bachelors	45%
	Master	8%
Income	Up to Rs.50,000	7%
	Rs.51,000 to Rs.100,000	18%
	Rs.101,000 to Rs.150,000	39%
	Rs.151,000 to Rs.200,000	19%
	Rs.200,000 Plus	17%

Measurement Model

A measurement model provides insight into the "relationships between observed and latent" variables (Hair et al., 2022). It allows researchers to identify potential issues and improve the quality of the research (Sarstedt et al., 2022). Figure 2 shows the measurement model.

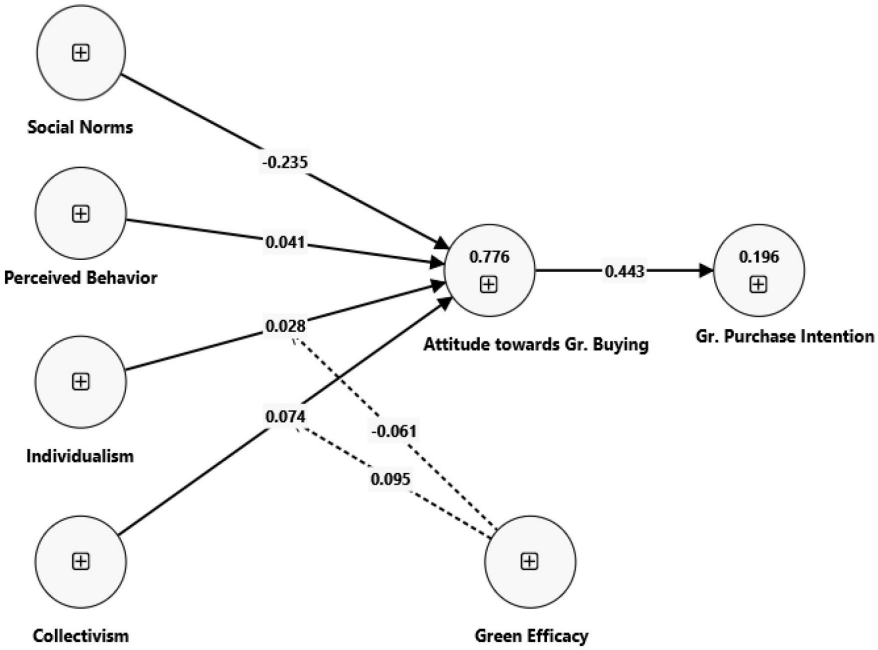

Figure 2: Measurement Model

Descriptive Analysis

Descriptive analysis lays the foundation for advanced statistical analysis, including reliability and validity (Zikmund et al., 2020). In Table 3, we have presented data related to "Mean, standard deviation, Cronbach's Alpha, skewness, and kurtosis."

Table 3: Descriptive Analysis

Constructs	Cronbach's alpha	Mean	Std. Dev.	Skewness	Kurtosis
Attitude Gr. Buying	0.835	3.468	1.308	1.220	-1.784
Collectivism	0.809	3.821	1.630	-2.230	1.392
Gr. Purchase Intention	0.822	4.351	2.111	1.709	1.038
Green self- Efficacy	0.779	3.450	1.228	2.107	1.567
Individualism	0.870	3.984	1.863	-1.121	2.076
Perceived Behavior	0.843	4.386	1.085	1.594	-1.735
Social Norms	0.801	4.372	1.950	1.166	1.907

Sekaran and Bougie (2020) assert "that constructs have univariate normality if the Skewness and Kurtosis values are between ±3.5." Similarly, Zikmund et al. (2020) suggest that the constructs "have internal consistency if Cronbach's Alpha values are at

least 0.700." Our results are in line with the above researchers' prescribed suggestions. Thus, we "inferred that the constructs have acceptable univariate normality and internal consistency."

Convergent Validity

Convergent validity is the "theoretical association between latent variables and their indicators" (Sekaran & Bougie, 2020). Many researchers suggest "using composite reliability and AVE values to ascertain convergent validity" (Sekaran & Bougie, 2020). Moreover, these researchers suggest that the constructs would meet the requirements of convergent validity if AVE values were greater than 0.500 and composite reliability values were at least 0.700. Our results in Table 4 align with the prescribed limits suggested by the above researchers, "confirming that the constructs fulfill the requirements of convergent validity."

Table 4: Convergent Validity

Constructs	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Attitude towards Gr. Buying	0.837	0.89	0.818
Collectivism	0.839	0.872	0.838
Gr. Purchase Intention	0.828	0.918	0.921
Green Efficacy	0.961	0.842	0.837
Individualism	0.874	0.92	0.891
Perceived Behavior	0.858	0.894	0.835
Social Norms	0.805	0.87	0.836

Model Fit Indices

Fit indices show how well the measurement model fits the data. Hair et al. (2022) suggest that SMR values must be less than 0.080, and NFI values must be greater than 0.800. The results in Table 5 align with the above researchers, suggesting adequate fitness of the study's Model.

Table 5: Fit Indices

Fit Indices	Saturated model	Estimated model
SRMR	0.078	0.079
d_ULS	2.635	4.768
d_G	n/a	n/a
Chi-square	∞	∞
NFI	0.812	0.813

R Square Value

Hair et al. (2022) state that R^2 values evaluate the model's predictive power. They also stress that an R^2 value should be between 0 and 1. Our results in Table 6 show that the model partially predicts the outcome.

Table 6 R Square Values

Dependent Variables	R-square	R-square adjusted
Attitude towards Gr. Buying	0.776	0.774
Gr. Purchase Intention	0.196	0.196

Discriminant Validity

Creswell (2019) suggests that the researcher must ensure the constructs are "unique and empirically different." There are many techniques for assessing discriminant validity. The study used Fornell and Larcker's (1981) criteria and HTMT ratio for discriminant validity. The results based on Fornell and Larcker's (1981) criteria in Table 7 "show that Square roots of AVE values are greater than correlation values, suggesting the constructs are unique and empirically different."

Table 7: Discriminant Validity (Fornell & Larcker, 1981)

Constructs	AGB	CLT	GPI	GE	IND	PB	SN
Attitude towards Gr. Buying	0.818						
Collectivism	0.569	0.838					
Gr. Purchase Intention	0.443	0.554	0.921				
Green Self Efficacy	0.865	0.668	0.647	0.837			
Individualism	0.502	0.644	0.517	0.605	0.891		
Perceived Behavior	0.353	0.327	0.291	0.390	0.359	0.835	
Social Norms	0.500	0.703	0.693	0.687	0.697	0.382	0.836

Discriminant Validity (HTMT Ratio)

Researchers suggest that to ensure the quality of research, additional methods for discriminant validity should be used (Creswell, 2019; Sekaran & Bougie, 2020). Following "the above advice, we have ascertained discriminant validity using the HTMT ratio." Rasoolimanesh (2022) suggests that in HTMT ratio analysis if HTMT ratios are less than 0.950, the constructs are unique and distinct. Table 8 shows that our results align with the guidelines of the above researcher, indicating "that the constructs used in the study are also unique and distinct."

Table 8: Discriminant Validity (HTMT Ratio)

Constructs	AGB	CLT	GPI	GE	IND	PB	SN
Attitude towards Gr. Buying	-						
Collectivism(CLT)	0.672						
Gr. Purchase Intention (GPI)	0.532	0.688					
Green Self Efficacy (GSE)	0.899	0.799	0.842				
Individualism (IND)	0.585	0.786	0.614	0.717			
Perceived Behavior (PB)	0.412	0.401	0.34	0.445	0.414		
Social Norms (SNS)	0.607	0.896	0.857	0.889	0.836	0.457	-

Structural Model

The measurement model asses the relationships between observed and latent variables (Ringle & Sarstedt, 2022). Where as, a structural model outlines the causal relationships between latent variables in a research model (Hair et al., 2022). Figure 3 depicts the structural model.

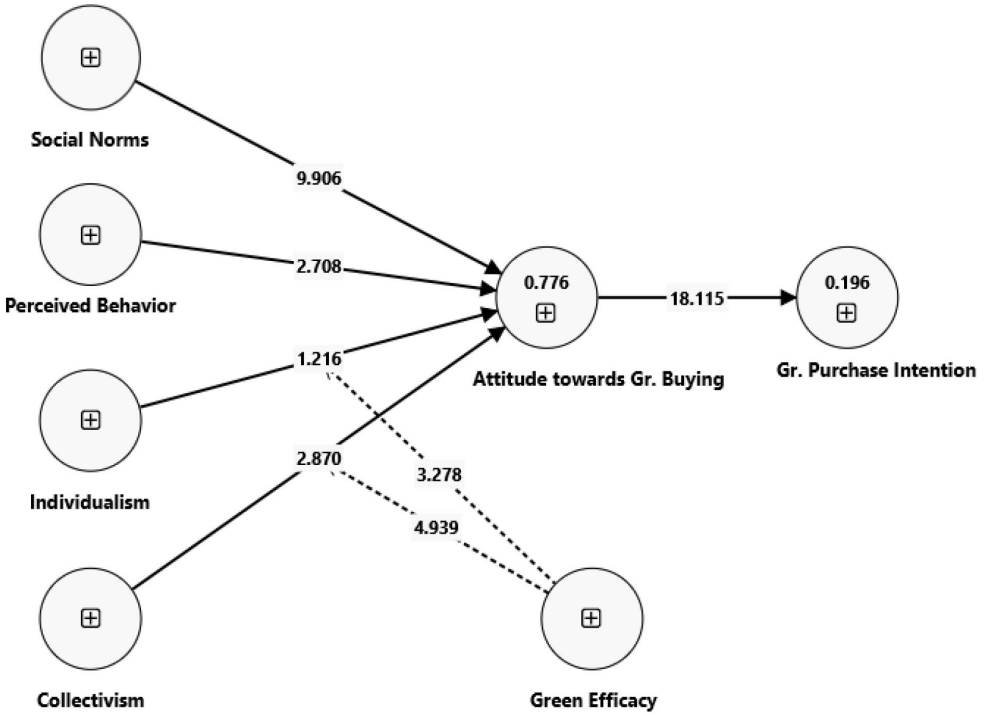

Figure 3: Structural Model

Hypothesis Results

The study has proposed "five direct and two moderating relationships. Table 9 shows the related results."

Table 9: Hypothesis Results

Hypotheses	β	T. Stats	P values	Results
Social Norms-> Attitude Gr. Buying (H1)	- 0.235	9.906	0.00	Rejected *
Perceived Behavior -> Attitude Gr. Buying (H2)	0.041	2.708	0.000	Accepted
Individualism -> Attitude Gr. Buying (H3)	0.028	1.216	0.060	Rejected
Collectivism -> Attitude Gr. Buying (H4)	0.074	2.870	0.003	Accepted
Attitude Gr. Buying -> Gr. P. Intention (H5)	0.443	18.155	0.000	Accepted
Gr. Efficacy x Individualism. -> Att. Gr. Buying - (H6)	-0.061	3.278	0.001	Accepted
Gr. Efficacy x Collectivism -> Att. Gr. Buying (H7)	0.095	4.932	0.000	Accepted

*Significant, but the direction is contrary to the proposed hypothesis.

The study results support three direct hypotheses (H2, H4, and H5). The relationship in Hypothesis 1 is significant but we rejected this hypothesis because its direction is contrary to the proposed hypothesis. However, we found support for both moderating Hypotheses (H6 and H7).

Discussion and Conclusion

Discussion

We "found that social norms (SNs) negatively affect attitude towards green buying (ATGB)." The finding is contrary to the envisaged positive relationship. Extant literature documents that when social norms (SNs) of families and friends have a positive attitude towards green buying (ATGB), individuals adopt the same behavior (Rasheed et al., 2024). In this context, Salam et al. (2022) highlighted that social norms (SNs) aligned with sustainable practices can override individuals' preferences, leading to positive attitudes towards green buying (ATGB) (Asif et al., 2023). However, social norms (SNs) in collective societies like Pakistan shape consumers' attitudes toward green buying (ATGB) (Mansoor et al., 2022).

We "found that perceived behavior (PB) positively affects attitude towards green buying (ATGB)." Thus, when consumers control their choices, they may adopt a positive or negative attitude toward green buying (Asif et al., 2023). These negative or positive attitudes depend on their social orientation toward sustainable practices (Majeed et al., 2022). Individuals with a high orientation towards green practices would develop positive attitudes toward green buying (ATGB) (Raza & Farrukh, 2023). In contrast,

individuals with a low orientation towards green practices would develop negative attitudes toward green buying (ATGB) (Asif et al., 2023).

We "found that individualism (IND) insignificantly affects attitude towards green buying." Like Pakistan, all countries, despite being collectivists or individualists, have segments of individualists and collectivists (Rasheed et al., 2024). Raza and Farrukh (2023) assert that the individualists in Pakistan prefer their benefits and autonomy (Shah et al., 2024). If they feel that green products are not beneficial, they will develop negative attitudes toward green buying (ATGB) (Salam et al., 2022). In contrast, individualists in Pakistan may have a positive attitude toward green buying (ATGB) if they believe they may benefit from improved health and increased social status (Asif et al., 2023).

We "found that collectivism (CLT) positively affects attitude towards green buying behavior (ATGB). Researchers have categorized Pakistan as a collectivist society (Majeed & Rasheed, 2024). Thus, most individuals in this country sacrifice their personal goals and ambitions to align with society and family values (Qureshi et al., 2023). Moreover, when individuals believe that society and families support green practices, they adopt positive attitudes toward green buying (ATGB) (Zahra et al., 2022). However, "when individuals believe their society and family" do not support sustainable practices, they adopt a negative attitude towards green buying (ATGB) (Farooqi & Frooghi, 2024).

We "found that attitudes toward green buying (ATGB) positively affects green purchase intention (GPI)." The Theory of Planned Behavior postulates that attitude is an "essential precursor of purchase intention (PI)" (Salam et al., 2022). Extending this argument to sustainable products, we argue that a positive attitude towards green buying (ATGB) significantly influences green purchase intention (GPI) (Iqbal et al., 2023). Moreover, when consumers hold a favorable attitude towards green buying (ATGB), they adopt a green purchase intention (GPI), leading to green buying behavior (Rasheed et al., 2024).

We "found that green efficacy moderates the relationships between individualism (IND) and attitude towards green buying." Extant literature highlights that consumers with high green self-efficacy (GSE) believe they can contribute by changing society's attitudes toward green buying (Zhang et al., 2024). Past studies have highlighted that green self-efficacy (GSE) can increase effect size between individualism (IND) and attitude toward green buying (ATGB) relationship (Ahmed & Islam, 2023). On the other hand, other studies highlight that green efficacy (GSE) decreases the effect size between individualism (IND) and attitude towards green buying (ATGB) relationship (Zhang et al., 2024; Iqbal et al., 2023).

We "found that green self-efficacy (GSE) moderates the relationship between collectivism (CLT) and attitude towards green buying (ATGB)." Extant literature stresses that green self-efficacy (GSE) increases the effect size between collectivism (CLT) and attitude towards green buying (ATGB) relationship (Moazzam et al., 2023). On the other hand, other researchers believe self-efficacy (GSE) decreases the effect size between collectivism (CLT) and attitude towards green buying (ATGB) relationship (Yasir et al., 2022).

Conclusion

Sustainability awareness has grown significantly worldwide. However, Pakistan is still in its nascent stages. Many antecedents affect attitudes toward green buying (ATGB). However, by extending the "Theory of Planned Behavior," we developed five direct and two moderating hypotheses." We "focused on the textile sector as "it significantly contributes towards employment generation and GDP." The "study found that perceived behavior control (PBC) and collectivism (CLT) positively affect attitudes towards green buying." The study also documents that "social norms (SNs) negatively affect attitude towards green buying. Its direction is negative, contrary to the envisaged positive relationship. Individualism (IND) insignificantly affects attitudes towards green buying." Moreover, it documents that attitude towards green buying positively affects green purchase intention (GPI)." Regarding moderating relationships, we found "green efficacy moderates (i) individualism (IND) and attitudes towards green buying (ATGB), and (ii) collectivism (CLT) and attitude towards green buying (ATGB).

Implications

Firms can capitalize on social norms(SNs) by emphasizing their products are environmental friendly. They may also use social proof, such as customer testimonials and reviews. These measures demonstrate to consumers that others are engaging in green buying. Moreover, eco-friendly packaging options can appeal to consumers who are concerned about environmental values.

Perceived behavior control (PBC) affects attitude towards green buying(ATGB). Therefore, we recommend that firms develop targeted marketing strategies to appeal to consumers who believe they have control over their green buying decisions. For example, firms may use social media campaigns to raise awareness about green products and provide consumers with clear and accessible information. Additionally, businesses can develop new green products and services that cater to consumers who perceive that they have control over their green buying decisions. This can include products with eco-friendly packaging, sustainable materials, and energy-efficient features.

In individualistic cultures, consumers prefer their interests over environmental concerns, which leads to low attitudes toward green buying. Thus, we recommend that businesses emphasize the personal benefits of green products, such as cost savings or improved health. By highlighting the unique features and benefits of green products, businesses can appeal to individualist consumers.

In a collectivist society, individuals sacrifice their interests if they conflict with the society's norms and values. Thus, we suggest that firms develop green marketing strategies that align with society's collectivist values.

Limitation and Future Research

This study used only two dimensions of Hofstede's Model. Other studies may incorporate all its dimensions in their framework. The study did not examine the effects of green purchase intention (GPI) on green buying behavior, which other studies could examine. The study examined the moderating effect of green self-efficacy (GSE) on attitudes toward green buying(ATGB). Other studies could use other moderators, such as ethnicity and religiosity. We focused on the textile sector. Other studies may focus on the leather and chemical sectors. We "collected the data using a cross-sectional design; other studies may use a longitudinal design."

Annexure 1

Construct and Items used in the Questionnaire
Green Buying Behavior
GBB1. I consider the environmental impact of a product before making a purchase.
GBB2. I am willing to pay a premium for eco-friendly products.
GBB3. I check a product's packaging for recyclable or biodegradable materials.
GBB4. I consider the energy efficiency of a product before making a purchase.
GBB5. I consider the energy efficiency of a product before making a purchase.
GBB6. I avoid buying products with excessive packaging.
GBB7. I consider the durability of a product to reduce waste.
GBB8. I look for products with eco-labels or certifications (e.g., Energy Star).
GBB9. I prefer to buy products made from sustainable materials.
GBB10. I feel guilty when I buy products that harm the environment.
Green Purchase Intention
GPI1. I intend to purchase eco-friendly products in the next three months
GPI2. I plan to increase my spending on green products in the future.
GPI3. I am likely to choose eco-friendly products over conventional products.
GPI4. I intend to recommend eco-friendly products to friends and family.
GPI5. I am willing to pay a premium for eco-friendly products.
GPI6. I consider environmental impact when making purchasing decisions.
GPI7. I intend to reduce my consumption of non-eco-friendly products.
GPI8. I plan to seek information about eco-friendly products before making a purchase.
GPI9. I am committed to buying eco-friendly products regularly
GPI10. I believe buying eco-friendly products is important for the environment
Green Attitude
GA1. I believe that environmental protection is a personal responsibility.
GA2. I am concerned about the impact of my purchases on the environment.
GA3. I think that buying eco-friendly products is important for the future.
GA4. I feel guilty when I buy products that harm the environment.
GA5. I believe that companies should prioritize environmental sustainability.
GA6. I am willing to sacrifice convenience for environmentally friendly options.
GA7. I think that environmental issues are a major threat to society.
GA8. I believe that individual actions can make a difference in protecting the environment.
GA9. I am more likely to choose products with minimal packaging.
GA10. I think that the government should do more to protect the environment.

Social Norms
SN1. Most people I know make an effort to buy eco-friendly products.
SN2. My friends and family think it's important to consider the environment when making purchases
SN3. I feel pressure from others to buy sustainable products.
SN4. People in my social circle would approve of me buying eco-friendly products.
SN5. I believe that most people in my community care about environmental issues.
SN6. My peers would influence my decision to buy green products.
SN7. I think that buying eco-friendly products is a social expectation.
SN8. I feel like I'm part of a group that values environmental sustainability.
SN9. Others would notice if I didn't buy eco-friendly products.
SN10. I believe that social norms influence my green-buying behavior.
Perceived Behavior Control
PBC1. . I can choose eco-friendly products when shopping.
PBC2. I am confident in my ability to make environmentally sustainable purchasing decisions.
PBC3. I have control over whether or not I buy green products.
PBC4. It is easy for me to find eco-friendly products that meet my needs.
PBC5. I have the resources (e.g., time and money) to buy green products.
PBC6. I can overcome barriers to buying eco-friendly products (e.g., higher cost)
PBC7. I have the knowledge and skills to make informed green purchasing decisions.
PBC8. I can resist social pressures to buy non-eco-friendly products.
PBC9. I have the motivation to make an effort to buy green products.
PBC10. I believe I can make a difference through my green purchasing decisions.
Individualism
IND1. I prioritize my personal needs and interests over environmental concerns.
IND2. I make purchasing decisions based on my values and beliefs.
IND3. I am more concerned with how a product benefits me than its environmental impact
IND4. I prefer to make my own decisions about what products to buy rather than following others.
IND5. I prioritize my convenience and comfort over environmental sustainability.
IND6. I am less likely to buy a product if it is perceived as "eco-friendly" but not beneficial.
IND7. I believe that individual freedom and choice are more important than environmental regulations.
IND8. I am more likely to buy a product that aligns with my values, even if it's not eco-friendly.
IND9. I prioritize my financial interests over environmental concerns.
IND10. I believe that individuals, rather than governments or organizations, should take responsibility for environmental protection
Collectivism
CLT1. I prioritize the needs of my community and society over my interests.
CLT2. I consider the environmental impact of my purchases on future generations

CLT3. I believe that environmental protection is a collective responsibility.
CLT4. I make purchasing decisions based on what is best for my community.
CLT5. I prioritize the greater good over my convenience
CLT6. I am willing to sacrifice personal benefits for the sake of the environment.
CLT7. I believe that group membership (e.g., family, community) influences my environmental Behavior.
CLT8. I consider the opinions of others in my community when making green purchasing decisions.
CLT9. I prioritize social harmony and cooperation over individual freedom.
CLT10. I believe that collective action is necessary to address environmental issues.
Green Efficacy
GEF1. I believe my actions can make a difference in protecting the environment.
GEF2. I feel confident in my ability to reduce my carbon footprint.
GEF3. I think my eco-friendly purchases can influence others to do the same.
GEF4. I believe my daily choices can contribute to a more sustainable future.
GEF5. I feel empowered to make environmentally responsible decisions.
GEF6. I think my actions can help mitigate climate change.
GEF7. I believe my support for environmental causes can create positive change.
GEF8. I feel capable of reducing my waste and living more sustainably.
GEF9. I think my choices can help preserve natural resources for future generations.
GEF10. I believe my actions can inspire others to take environmental action.

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