Examining the Factors That Shape Green Purchase Behavior: The Role of Subjective Norms, Self-Efficacy, Attitude and Intention

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Abstract

This study main objective is to analyze the emerging phenomenon of eco-friendly green environments in the domain of marketing. It is essential to increasing the market penetration of ecological products to get consumers to adopt a positive attitude toward green purchasing. Specifically, the study examined the role of green self-efficacy, subjective norms, and green purchase attitude in predicting the effect of intention in green purchase on the association among these factors and actual green purchase behavior. Data from 224 consumers with prior experience buying eco-friendly products is used. Results showed that subjective norms, green self-efficacy, and green purchase attitude important impact on intention to green purchase, which leads to predicted actual green purchase behavior. The mediation of intention toward green purchase was found to be partial. Therefore, this study suggests that interventions aimed at promoting green purchase behavior should focus on enhancing consumers' green self-efficacy, subjective norms, and green purchase attitude, as well as strengthening the intention-behavior relationship.

Keywords: Green Self-Efficacy, Green Purchase Attitude, Subjective Norms, Green Purchase Intention, Green Purchase Behavior

1. Introduction

Currently, global warming and environmental concerns are major issues such as abnormal weather, and recycling issues, whether for governments or societies around the world. Every country is more aware of "green marketing" issues. Climate changes cause enterprises to change their business styles and practices (George & Schillebeeckx, 2022; Govender & Govender, 2016). It is obvious that how customers select products & services has both directly and indirectly impacts on the climate change and their well-being (George et al., 2021; Gruber & Schlegelmilch, 2014). The growing emphasis on global sustainable development and environmental responsibility has also influenced consumer purchase behavior(Kesari et al., 2021; Kim & Chung, 2011). Consumer choices and behaviors have changed as a result of the increased focus on environmental sustainability (Degli Esposti et al., 2021; Gao et al., 2016).

Natural disasters have increased in Pakistan as a result of climate change and more frequent extreme weather events (Nasreen et al., 2023). The economy and people of a country suffer from the detrimental effects of major natural disasters such as high exposure to flooding, tropical cyclones, landslides and also to earthquakes (Komatsubara et al., 2023). Pakistan's agricultural sector, a vital contributor to its economy, faces threats from changing weather patterns and water scarcity (Usman et al., 2023). Additionally, there is a greater risk of flash floods, landslides, and foods caused by glacial lake outbursts as a result of the melting of Pakistan's northern glaciers (Khan et al., 2023). The vulnerability of Pakistan to climate change requires immediate attention and long-term action (Noor et al., 2023). Consumers can help mitigate the impact of climate change by purchasing sustainable and environment products, which can aid in reducing greenhouse gas emissions and promote sustainable production methods.

Any product that aims to be eco-friendly and responds to customer wants has impact on the environment. Natural fibers including cotton, silk, linen, wool, and hemp are used in the textile sector. However, synthetic fibers manufactured from petrochemicals, like as nylon and polyester, are now available in market. When these fibers are used to make clothing, it has a negative effect on the environment (Karthik & Rathinamoorthy, 2017). Green products can be achieved through the use of recycling strategies, energy-efficient designs, reduced packaging, and nontoxic materials (Sarkar et al., 2022). These products also known as environmentally friendly or eco-friendly products, are designed to have a low environmental impact throughout their lifecycle from production to disposal (Zeynalova & Namazova, 2022). The concern for environmental issues motivates a considerable number of consumers to show interest in buying eco-friendly products. However, actual green product sales remain below expectations (Kamalanon et al., 2022). As a result, green product marketers need to analyze the drivers that influence green purchase behavior in order to achieve objectives (Kamalanon et al., 2022).

Green purchasing behavior refers to customers' tendency to prefer and actively seek out environmentally friendly or sustainable goods and services (García-Salirrosas & Rondon-Eusebio, 2022; Yadav & Pathak, 2016). Additionally, it is a green product that meets customer requirements neither harming the environment and works forward into a sustainable future (Soomro et al., 2020). The intention to make green purchases serves as a measure of consumers' willingness or readiness to embrace environmentally friendly alternatives (Azarcon et al., 2022). Self-efficacy is a individual optimism in their own abilities to do a given activity or action (El Hasbi et al., 2022). Self-efficacy relates to an persons trust in their capability to recognize and engage in environmentally friendly purchasing decisions in the perspective of green purchasing

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behavior. Individuals are more motivated to take action when the consequence of an attitude is favorable (Ajzen, 1991). An individual's behavior either positive or negative toward a certain activity is measured by their attitude (Sobaih & Elshaer, 2023). The subjective norms are the effect of identified the pressure of social and expectations from others on an individual's behavior (Rausch & Kopplin, 2021).

The study objectives are to analyze the roles of subjective norms, green self-efficacy, green purchase attitude, and green purchase intention as mediating variables in shaping green purchase behavior. The researcher wants to know how these variables interact with one another to predict whether or not consumers will engage in environmentally friendly purchasing behaviors. By understanding how these factors influence consumer decision-making, consumer can better understand how to promote the adoption of eco-friendly purchase behaviors. As concerns about environmental sustainability continue to rise, understanding the factors that shape consumer behavior related to environmental responsibility has become increasingly important. In order to measure green purchase attitude, subjective norms, green self-efficacy, green purchase intention, and actual green purchase behavior. The researcher collects primary data from consumers through survey questionnaire. The study can investigate the correlation between these drivers and test the mediating effects of the variables on green purchasing behavior using a quantitative research design and statistical tools such as regression analysis.

2. Literature Review
2.1. Subjective Norms
Subjective norms depend on perception of an individual's the expectations and opinions of their social environment (Rausch & Kopplin, 2021). Consumers perceive green products to be more eco-friendly and resist them based on social pressure (Lavuri, 2022). Previous studies investigate into how subjective norms affected consumers' purchase intentions. In their study, Park and Lin (2020) revealed that subjective norms increase eco-friendly product purchases. Jung et al. (2021) reveled that social norms influenced Chinese customers' intentions to purchase sustainable clothing brands. However, It was determined that there was very little correlation among subjective norms and consumer intention or behavior to purchase environment friendly products (Kamalanon et al., 2022; Kumar et al., 2017). There has not been a thorough investigation of the variables that influence the association among subjective norms and the intention to make eco-friendly purchases. In order to resolve the discrepancies found in previous research, Researcher propose Hypothesis 1 is:

H_1: Subjective norms have positively influence on green purchase intention.

2.2. Green Self-Efficacy
Self-efficacy is described as the belief in someone's have the ability to conduct a specific and accomplish certain behavior in order to achieve its objectives (Shang et al., 2023). According to the theory of self-efficacy, self-efficacy might be significant predictor of behavior and attitude (Bandura, 1997). People seek to act in ways which are constant with their own particular views, social standards, and social roles. Self-efficacy among consumers may act as a standalone predictor of their purchasing patterns (Ahmad et al., 2021). Those who believe more in their own competence to select and develop ideas are favorable to have level is higher of self-efficacy (Alam et al., 2023). Furner et al. (2018) found that consumer whose level are high self-efficacy are more favorable to be trusted and to make purchases.

Thus, the study proposed that:

H_2: Green Self-Efficacy has a direct positive impact on green purchase intention.

2.3. Green Purchase Attitude
Planned Behavior theory states an individual attitude toward an action might affect that individual behavior (Ajzen, 1991). An individual is more favorable to engage in an action if they are good attitude toward it, claims the theory of planned behavior (Amoako et al., 2020). When attempting to explain individual behavior, attitude has been deemed crucial (Paul et al., 2010). Environmental behavior has been shown to be significantly predicted by attitude (Ojo et al., 2019). Aside from that, those who care about the environment and think that pollution is an issue are more favorable to buy green items than others who don't (Shahzad et al., 2022).

The abilities of enterprises to create and supply extremely eco-friendly items may influence how consumers feel about certain firms and influence their purchasing patterns (Maciaszczyk et al., 2022). Now, Manufacturers focus on consumer behavior to purchase environmentally friendly items and take the environment into consideration when designing products (Zameer & Yasmeen, 2022). Positive attitude of consumer toward green brands increases in volume of the purchases (Kamalanon et al., 2022). The demand for environmentally friendly products and services can be influenced, which might change the market's future. As a result, the green purchase attitude is a crucial aspect to take into account when analyzing consumer purchasing intention. So, the study proposed that:

H_3: Green purchase attitude has a direct positive impact on green purchase intentions.

2.4. Green Purchase Intention
Green purchase intention measures the extent to which consumers are prepared to embrace environmentally-friendly options (Asih et al., 2020). Beliefs regarding the consequences of a behavior shape the intention to act, with positive or

negative evaluations influencing this intention (Kamalanon et al., 2022). Studies have revealed that consumers who express an intention to purchase environment friendly products are more favorable to follow through and actually purchase eco-friendly products (Yee et al., 2022). In Fontes et al. (2021) study showed that intention to purchase has a favorable influence on behavior of eco-friendly products, underscoring the importance of intention to purchase in green marketing efforts. Consequently, this study objectives is to confirm the pivotal role of green purchase intention in predicting green purchase behavior. So, the study proposed that:

H4: There is a positive relationship between green purchase intention and green purchasing behavior.

2.5. Green Purchase Intention as a Mediator

A study by Alalei and Jan (2023) found that subjective norms to have a positively effect on consumers' intentions to make eco-friendly product purchases, which in leads to a fruitful effect on consumers' actual green purchasing behavior. Alam et al. (2023) found in their study that subjective norms significantly predict intention of green purchasing, which predicts green purchase behavior among Chinese consumers. An individual's intention to green purchasing and other eco-friendly actions, can be influenced by subjective norms (Kumar & Pandey, 2023). This intention, in turn, can lead to actual green purchase behavior. So, the study proposed that:

H5: The green purchase intention mediates the relationship among subjective norms and green purchase behavior.

According to the Tawde et al. (2023) Consumers' green purchase behavior and green self-efficacy were found to be mediated by their green purchase intention. Individuals who believe in their ability to incorporate eco-friendly behavior are more favorable to develop a positive intentions indirection of green purchasing which in turn, can lead to actual green purchase behavior. So, the study proposed that:

H6: Green purchase intention mediates the relationship among green self-efficacy and green purchase behavior.

Individuals with favorable attitudes toward environment friendly products are more favorable to engage in environment friendly responsible purchasing (Channa et al., 2022; Kamalanon et al., 2022). However, attitude alone may not be enough to predict actual behavior. The objective of encouraging environmentally conscious purchases acts as a bridge between attitudes and behavior, as it reflects an individual's willingness and plan to involve in green purchasing. When individual has a positive attitude towards eco-friendly products, they may develop a positive intention towards green purchasing which turns and lead to actual green purchase behavior. So, the study proposed that:

H7: Green purchase intention mediates the relationship among green purchase attitude and green purchase behavior.

The current study proposes a paradigm (figure 1) to examine green purchasing behavior in conformity with constructs, namely subjective norms, green purchase attitude, green self-efficacy and green purchase intention.
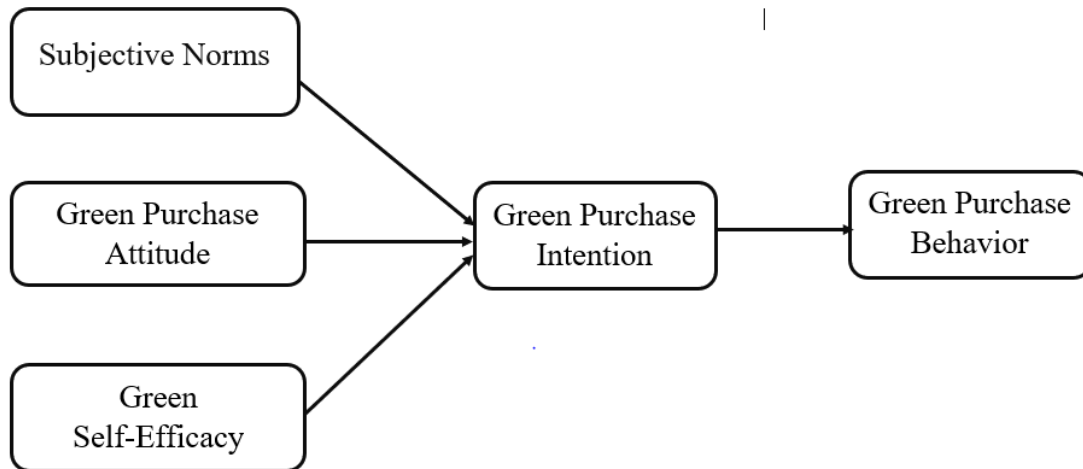

Figure 1: The Conceptual Model

3. Methodology

3.1. Procedure

The current study used a cross-sectional survey research methodology to accomplish its goals. The researcher would utilize a questionnaire in this study to obtain data on factors effecting on green purchase behavior. As a result, a survey technique is most suited to my research goals. The researcher will collect data from undergraduate students via a questionnaire for this study. In this study, researcher used non-probability sampling. Non-probability sampling prevents all persons from participating in the study. This is in opposed to the likelihood testing technique, in which the entire community participates in the research, either completely or partially. The target population in this study is the student of universities and post graduate colleges in Narowal. Population was selected on the basis of who buy the green products. The use of non-

probability sampling is explained by the fact that, due to time and financial constraints, it can be challenging for some researchers to obtain irregular probability-based examples of the population. Segments of people are chosen in this situation to assess individual judgment. The most beneficial quantitative research methodology is non-probability sampling, which uses the absolute judgment of individuals.

The current study's variables were all measured using scales that had previously developed and would use a five-point Likert scale for this study. Subjective Norms was adopted from previous study Kamalanon et al. (2022). Green Self-Efficacy adopted from previous study Armitage and Conner (2001). Green Purchase Attitude adopted from previous study Dhir et al. (2021). Green purchase Intention adopted from previous study Kamalanon et al. (2022). Green Purchase Behavior was adopted from previous study Kim and Choi (2005). The current study utilizes five-point Likert scale to analyzed the responses. Questionnaire procedure was used to collect data from the students. The unit of analysis is individual. This research would be done in a non-contrived setting with minimal involvement in the normal routine. 250 questionnaires were distributed among students and 224 responses were received with 89.6% response rate.

3.2. Technique of Analyzing Data

The study collected data from the 224 respondents was entered into SPSS. Descriptive statistics were used to evaluate the level of subjective norms, green self-efficacy, green purchase attitude, green purchase behavior through measures such as mean, skewness, kurtosis, maximum and minimum values. The relationship between these variables was examined through the use of Cronbach's Alpha, Pearson correlation, and regression analysis.

3.3. Profile of Sample

Table 1 presents a summary of the respondent's demographic profiles based on various criteria. An analysis that is descriptive was performed to gather information about the respondents' demographic profiles. According to Table 1, out of 224 participants, the gender distribution showed that 58.48% were male and 41.51% were female. A significant disparity was observed in the age group, with 69% of the participants being below 26 years of age. A significant number of the respondents had a well educational background, with 28% possessing a degree of bachelors, 54% holding an master's degree, and 18% owning an intermediate certificate.

Table 1:   **Characteristics of respondents**

Sample characteristics	Categories	Frequency	% Of respondent
Gender	Male	131	58.48
	Female	93	41.51
Age	18-22 years	70	31
	22-26 years	103	46
	26-30 years	14	6
	30-40 years	24	11
	Over 40 years	13	6
Level of education	Intermediate	40	17.9
	Bachelors	63	28.1
	Master	106	47.3
	M.Phil or Above	15	6.7

3.4. Normality Test

The normality of the data was assessed using a normality test. The findings showed that the skewness of all variables was within the range of ± 1 and the kurtosis was within the range of ± 3, which indicated that the data was normally distributed.

Table 2:   **Descriptive analysis**

		GPB	GPI	SN	GSE	GPA
N	Valid	224	224	224	224	224
Mean		3.4241	3.3616	3.2991	3.2031	3.4576
Median		4.0000	3.5000	3.3333	3.2500	3.6667
Skewness		-.508	-.731	-.422	-.535	-.698
Kurtosis		-1.416	-.607	-.572	-.819	-.643
Minimum		1.50	1.00	1.00	1.00	1.00
Maximum		5.00	4.75	5.00	4.75	5.00

3.5. Reliability Test

Cronbach's alpha evaluates the internal uniformity of a scale's items, which has scores ranging from 0 to 1, with a higher number indicating greater consistency. Based on the classification guidelines established by George and Mallery (2003) a score greater than 0.7 would be considered acceptable.

Table 3	Reliability Statistics
Construct	Cronbach's Alpha
	.892
Authenticity	.768
Subjective Norms	
Green Self-Efficacy	.727
Green Purchase Intention	.680
Green Purchase Behavior	
	.899

Table 3 displays the Cronbach's alpha values for Subjective Norms, Green Self-Efficacy, Green Purchase Attitude, Green Purchase Intention, Green Purchase Behavior is .768, .727, .740, .680 and .899 respectively. Since the values are higher than 0.70, the reliability of the data and the variables can be considered sound.

3.6. Pearson Correlation Analysis

A technique for examining the relationship between variables is correlation. With the help of the Pearson correlation, two variables' relationships are evaluated for strength and significance.

Table 4:	Correlations				
		GPB	GPI	SN	GSE	GPA
GPB	Pearson Correlation	1				
GPI	Pearson Correlation	.607**	1			
SN	Pearson Correlation	.331**	.586**	1		
GSE	Pearson Correlation	.542**	.659**	.785**	1	
GPA	Pearson Correlation	.516**	.762**	.657**	.631**	1
** Correlation is significant at the 0.01 level (2-tailed)					

3.6.1. Relationship among green purchase behavior and green purchase intention

The association among green Purchasing behavior and green purchase Intention was evaluated using a Pearson correlation analysis. The outcome of the analysis exposed a moderately positive linear relationship between the two variables, with a 0.607 value. Additionally, the significance level of 0.01 indicated that the association was statistically significant. Consumer is more favorably to actually engage in green purchasing behavior if they have a stronger intention to buy green goods.

3.6.2. Relationship among green Purchase behavior and Subjective Norms

The association among green Purchase behavior and subjective norms was evaluated using a Pearson correlation analysis. The outcome of the analysis revealed a weak to moderately positive linear relationship among the two variables, with a 0.331 value. Additionally, the significance level of 0.01 indicated that the association was statistically significant. Consumers opinions of what their coworkers, relatives, or friends think about their green purchasing decisions can affect their own choices. Consumers are therefore more inclined to adopt green purchasing themselves if they believe that their friends or social circle values it.

3.6.3. Relationship among green Purchase behavior and Green Self-Efficacy

The association among green Purchase behavior and green self-efficacy was evaluated using a Pearson correlation analysis. The outcome of the analysis exposed a moderately positive linear relationship among the two variables, with a 0.542 value. Additionally, the significance level of 0.01 indicated that the association was statistically significant. Higher self-efficacy for green purchasing behavior increases probability of consumer action will engage in actual green purchasing behavior.

3.6.4 Relationship among green Purchase behavior and Green Purchase Attitude

The association among green purchase behavior and green purchase attitude was evaluated using a Pearson correlation analysis. The outcome of the analysis exposed a moderately positive linear relationship among the two variables, with a 0.516 value. Additionally, the significance level of 0.01 indicated that the association was statistically significant.

Consumers with more favorable attitude towards green purchasing are engage more favorable in such behavior because they believe it to be important and valuable.

3.7. Regression Analysis

Model 1

Y = GPB (Green Purchase Behavior)
X = SN (Subjective Norms)
M = GPI (Green Purchase Intention)

Table 5: Mediating Effect through Green Purchase Intention

Outcome: GPI

Model Summary

R	R-sq	MSE	F	df1	df2	p
.5861	.3436	7003	116.1866	1.0000	222.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	1.3245	.1971	6.7203	.0000	.9361	1.7129
SN	.6175	.0573	10.7790	.0000	.5046	.7304

The regression equation is: GPI = 1.3245 + 0.6175 * SN

For the results of green purchase intention (GPI), the Model Summary shows that the model has a R value of .5861 and an R-squared value of .3436, It indicates that the predictor variable subjective norms accounts for 34.36 percent of the variance in the GPI. The model is statistically significant as a result of the mean squared error of .7003, the F-statistic of 116.1866, and the value of p is less than.0000. The Model table shows the coefficients and their corresponding t-values, standard errors, p-values, and both (upper & lower) confidence intervals. The coefficient for SN is .6175, with a t-value of 10.7790 and value of p is less than .0000, suggesting that it is an important predictor of GPI. This indicates Subjective norms is an significant interpreter of green purchase intention, and as Subjective norms increases by one unit, Researcher expect GPL to increase by 0.6175 units.

Table 6: Mediating Effect of Green Purchase Intention

Outcome: GPB

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	.6078	.3694	.8608	64.7434	2.0000	221.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	1.1849	.2397	4.9432	.0000	.7125	1.6573
GPI	.7101	.0744	9.5434	.0000	.5635	.8568
SN	-.0449	.0784	-.5723	.5677	-.1994	.1096

The regression equation is: GPB = 1.1849 + 0.7101(GPI) - 0.0449(SN)

For the outcome Green Purchase behavior "GPB", the Model Summary shows that the model has a R value of .6078 and an R-squared value of .3694, It shows that green purchase intention and subjective norms can account for 36.94% of the variation in environmentally conscious consumers' actual green purchasing behaviors. The model is statistically significant as a result of the mean squared error of 0.8608, the F-statistic of 64.7434, and the value of p is less than .0000. The results indicate that the coefficients and their corresponding t-values, standard errors, p-values, lower and upper confidence intervals. Green purchase intention has a coefficient of 0.7101, a value of t is 9.5434, and value of p is less than.0000, indicating that It is an important predictors of how people will purchase for environmentally friendly products. Thus, for each unit that the green purchase intention increases, Researcher can expect green purchase behavior to rise by 0.7101 units. Subjective norms are not significantly predicting the green purchase behavior according to its coefficient, which is -0.0449, its t-value, which is -0.5723, and its p-value, which is .5677. This implies that Green purchase behavior is unaffected by subjective norms.

Table 7: Direct and Indirect Effect

		Direct effect of X on Y			
Effect	SE	t	p	LLCI	ULCI
-.0449	.0784	-.5723	.5677	-.1994	.1096

	Indirect effect of X on Y		
Effect	Boot SE	BootLLCI	BootULCI
GPI	.4385	.0610	.3276	.5683

The row "Effect" with the value -.0449 represents the direct effect of X (SN) on Y (GPB). It means that increase in every unit of SN, GPB is probably to fall by.0449 units while all other variables remain constant.

The indirect effect of X (SN) on Y (GPB) via the mediator variable (GPI) is represented by a value of .4385 in the "Effect" column under GPI. Thus, for each unit that the SN increases, GPB is expected to rise by.4385 units due to the indirect effect of GPI, assuming all other variables remain constant.

Model 2

Y = GPB (Green Purchase Behavior)
X = GSE (Green Self Efficacy)
M = GPI (Green Purchase Intention)

Table 8: Mediating Effect through Green Purchase Intention

			Outcome: GPI			

Model Summary

R	R-sq	MSE	F	df1	df2	p
.6586	.4338	.6040	170.0907	1.0000	222.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	1.1583	.1767	6.5534	.0000	.8100	1.5066
GSE	.6879	.0527	13.0419	.0000	.5839	.7918

The regression equation is: GPI = 1.1583 + 0.6789 * GSE

According to the Model Summary, the model has a R value of.6586 and an R-squared value of.4338, which means that the predictor variable green self-efficacy can explain 43.38% of the variation in GPB. The model's mean squared error of 0.6040, F-statistic of 170.0907, and p-value of less than.0000 make it statistically significant. Given that the coefficient of GSE has .6879, a t-value of 13.0419, and a value of p is less than.0000, it is a significant predictor of GPB. This implies that researcher should anticipate a 0.6879 unit increase in GPB for every unit increase in GSE.

Table 9: Mediating Effect of Green Purchase Intention

Outcome: GPB

Model Summary

R	R-sq	MSE	F	df1	df2	p
.6356	.4040	.8136	74.9171	2.0000	221.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	.8010	.2241	3.5744	.0004	.3594	1.2426
GPI	.4989	.0779	6.4055	.0000	.3454	.6524
GSE	.2953	.0814	3.6300	.0004	.1350	.4556

The regression equation is GPB = 0.8010 + 0.4989 * GPI + 0.2953 * GSE

According to this equation, the important predictor of GPB is GPI and GSE. Researcher anticipate that as GPI and GSE rise by one unit each, GPB will rise by 0.4989 and 0.2953 units, respectively. According to the Model Summary, Statistically, the model is significant with a significant F-statistic of 74.9171 and a value of p is less than.0000. The predictor variables GPI and GSE can explain 40.40% of the variation in GPB, according to the R-squared value of.4040.

Table 10: Direct and Indirect Effect

			Direct effect of X on Y		
Effect	SE	t	p	LLCI	ULCI
.2953	.0814	3.6300	.0004	.1350	.4556

		Indirect effect of X on Y	
	Effect	Boot SE	BootLLCI	BootULCI
GPI	.3432	.0588	.2298	.4605

The relationship between GSE and GPN is represented by the direct effect of GSE on GPB after accounting for the mediator variable GPI. The estimate of this effect is.2953, which has a p-value of.0004 and a statistical significance level of 3.6300. The 95% confidence interval for this effect has lower and upper bounds of.1350 and.4556, respectively.

The relationship among GSE and GPB that is mediating by GPI is represented by the indirect effect of GSE on GPB. The bootstrapped standard error of this effect's estimate is.0588, and its value is estimated at.3432. The 95% confidence interval for this effect has lower and upper bounds of.2298 and.4605, respectively.

Model 3

Y = GPB (Green Purchase Behavior)
X = GPA (Green Purchase Attitude)
M = GPI (Green Purchase Intention)

Table 11: Mediating Effect through Green Purchase Intention

Outcome: GPI

Model Summary

R	R-sq	MSE	F	df1	df2	p
.7618	.5804	.4476	307.0742	1.0000	222.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	.7612	.1550	4.9114	.0000	.4558	1.0666
GPA	.7521	.0429	17.5235	.0000	.6675	.8367

The regression equation is: GPI = .7612 + 0.7521 * GPA

With an R-squared value of.5804 and an F-value of 307.0742 (df1 = 1, df2 = 222, p .0001), the model summary for the regression of M on X shows that the relationship among GPA and GPI is statistically significant. When other factors in the model are taken into account, the coefficient estimate for GPA shows that increase in one unit of GPA is associated with a.7521-unit increase in GPI.

Table 12: Mediating Effect of Green Purchase Intention

Outcome: GPB

Model Summary

R	R-sq	MSE	F	df1	df2	p
.6126	.3753	.8529	66.3789	2.0000	221.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	.9987	.2252	4.4337	.0000	.5548	1.4426
GPI	.5760	.0926	6.2175	.0000	.3934	.7586
GPA	.1415	.0915	1.5470	.1233	-.0388	.3217

The regression equation is: GPB = 0.9987 + 0.5760(GPI) + 0.1415(GPA)

The dependent variable GPB has a statistically significant relationship with the independent variables, accounting for 37.53% of the variation in GPB in the multiple regression model with two independent variables (GPA and GPI). While controlling for other factors in the model, the coefficient estimate for GPI indicates that an increase in one unit of GPI is connected with a 0.5760 unit increase in GPB and is statistically significant with a t-value of 6.2175. Even after accounting

for other factors in the model, the coefficient estimate for GPA is not significant with a t-value of 1.5470 and a value of p is .1233, indicating that there are not enough data to reach the conclusion that a significant relationship exists among GPA and GPB. The confidence interval with 95% for the model's intercept (constant) is between 0.5548 and 1.4426, with a standard error of 0.2252 and a model intercept of 0.9987.

Table 13: Direct and Indirect effect

Direct effect of X on Y					
Effect	SE	t	p	LLCI	ULCI
.1415	.0915	1.5470	.1233	-.0388	.3217

	Indirect effect of X on Y			
	Effect	Boot SE	BootLLCI	BootULCI
GPI	.4332	.0729	.2877	.5796

The estimated direct effect of GPA (X) on GPB (Y) is 0.1415 with the value of t is 1.5470 and the standard error of 0.0915 are not statistically significant with the value of p is .1233. This shows that, after adjusting for the impact of GPI, there is insufficient evidence to suggest a significant direct effect of GPA on GPB.

The estimated bootstrap standard error for the indirect effect of GPA on GPB through GPI is 0.0729, and the 95% bootstrap confidence interval is (0.2877, 0.5796). This suggests that the mediator GPI has a significant indirect effect of GPA on GPB. More specifically, through its indirect influence on GPI, A 0.4332 unit increase in GPB corresponds to a one unit increase in GPA.

4. Discussion

This research illuminates the drives that shape environmentally responsible consumer decision-making. A side effect of the subjective norms is that they have an effects on consumers' desires and behaviors to make environmentally conscious purchases (Patwary et al., 2022). This is uniform with earlier studies that highlighted the importance of social influence in promoting environmentally friendly behavior (Kamalanon et al., 2022; Kumar et al., 2017). It was revealed that green purchase intentions were directly and favorably impacted by green self-efficacy, which is consistent with the TPB (Ajzen, 1991; Tawde et al., 2023). The findings also indicate that green self-efficacy influences green purchase behavior indirectly via green purchase intention which is consistent with the previous studies (Xu et al., 2022) . This suggests that increasing people's confidence in their capability to engage in green purchasing could lead to more green behavior (Wang et al., 2022). Green purchase attitude was discovered to have a strong and positive influence on both green purchase intention and behavior, supporting previous research (Channa et al., 2022; Hoang Yen & Hoang, 2023; Kamalanon et al., 2022).

Green purchase intention's mediation effect emphasizes its critical role in the relationship among the outcomes and predictor of green purchase behavior. The study revealed that the association among the drivers such as subjective norms, green self-efficacy, green purchase attitude, and green purchase behavior appears to be significantly mediated by green purchase intention. Thus, the results suggests that interventions aimed at promoting green behavior should focus on enhancing green purchase intention, that will turn in drive actual green purchase behavior.

5. Conclusion

In conclusion, this study has provided important insights into the factors that shape environmentally responsible consumer decision-making and emphasizes the importance of subjective norms, green self-efficacy, and green purchase attitude in driving green purchasing behavior. The results emphasize how crucial green purchase intention is as a moderator among the predictors as well as outcomes of green purchasing behavior.

Applied Recommendations

Several useful recommendations for practitioners and policymakers can be made based on the study's findings. Firstly, it is crucial to educate consumers about the advantages of making green purchases and how they can support environmental sustainability. Advertising, social media, and instructional initiatives are just a few of the communication methods that can be used to achieve this. Second, businesses should focus on developing high-quality, low-cost green products, as well as providing information about the environmental impact of their products. Third, policymakers can encourage companies to invest in green product development and provide tax breaks to consumers who buy green products. By understanding the factors that shape environmentally responsible consumer decision-making, individuals can be better equipped to make choices that align with their personal values and goals.

Limitations

There are some restrictions on this study that should be considered. Future research should seek to replicate and extend our findings specifically geographical location, which may limit the findings' generalizability to other regions or countries.

Furthermore, this study only looked at four factors that may influence green purchasing behavior, whereas other factors that were not looked at may also have an impact. Future research could look into additional factors that influence green purchasing behavior and use more diverse samples to improve the findings' generalizability.

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