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The Impact of Environmental Knowledge on Green Purchase Intention. The mediating role of Social Influence

Rabia Anwar[1], Faiza Sami[2], Zobia Malik[3]

[1] Lecturer, Department of Management Sciences, The Government Sadiq College Women University, Bahawalpur, Pakistan, Email: rabea.anwar@gscwu.edu.pk
[2] MPhil Scholar, Department of Management Sciences, The Government Sadiq College Women University, Bahawalpur, Pakistan, Email: scholar.faizasami@gmail.com
[3] Lecturer, Department of Management Sciences, The Government Sadiq College Women University, Bahawalpur, Pakistan, Email: zobia.malik@gscwu.edu.pk

Abstract:
Recently, there has been global recognition of the significance of purchasing intentions towards green products, driven by their widespread use and profound environmental implications. Thus the current thesis intricate connections between environmental knowledge, social influence, and consumers' inclination towards green purchasing. Employing a mixed-method approach, the study aims to unravel how these elements intertwine to shape sustainable consumption behaviors. By conducting longitudinal analyses and comparative studies across diverse demographic groups, the research endeavors to shed light on the underlying mechanisms of green purchase intention formation. Furthermore, the paper explores the influence of technology, behavioral economics, and cultural factors on individuals' decisions to opt for eco-friendly products, offering valuable insights into sustainable consumer behavior.

Keywords: Green Purchase Intention, Environmental Knowledge, Social Influence.

Introduction

Rapid economic growth and technological advancement have culminated in excessive levels of development and consumption that have adversely affected the environment in numerous ways, including haze, air and water contamination, environmental degradation, and the destruction of the ozone layer (H. Wang et al., 2019). Due to the tremendous disruption of people's everyday lives caused by the global COVID-19 outbreak, it is necessary to reevaluate the relationship between humans and the environment as well as to encourage companies to adopt management techniques to cope with the consequences of the disaster(Sun & Xing, 2022). Customers are becoming more conscious of how their actions, particularly when it comes to resource usage, might impact the environment. As a result, they are choosing eco-friendly products and services. Green consumers are those who favor environmentally friendly items and who take the environment into account while making daily purchase decisions (Pratiwi et al., 2018). The sustainability of social progress, the environment, and economic growth are all directly impacted by these issues. Additionally, it has drawn the interest of everyone involved in the school environment (Mahmood et al,.2024). Environmentally conscious customers have seen a good and notable increase in environmental preservation efforts, attitudes, and knowledge during the last few decades(Zhuang et al., 2021). In order for a business to succeed in the modern world, it is of the utmost importance that customers have access to knowledge about the goods and services they require(Departement of Hospitality,

Universitas Internasional Batam, Batam, Indonesia. et al., 2019). In order to speed up the transition to environmental responsibility, the Global Research Forum on Sustainable Production and Consumption (GRP-SPaC) partnered with a variety of different countries to establish a campaign that restored individuals, businesses, organisations, and researchers collectively to bring together discoveries, knowledge, and applications of productive environmentally sustainable production and consumption (Amin & Tarun, 2021). Increasing customer responsibility to use more eco-friendly products and reduce their negative effects is the easiest way to address these new environmental challenges. Even if viewers may be extremely conscious of environmental issues at the spot and have positive attitudes towards nature and the locale in generally, a shortage of environmental knowledge might prevent them from acting in an environment that is environmentally friendly while they are there(M.-S. Kim & Stepchenkova, 2020). As a result, many companies are starting to use green manufacturing and distribution strategies in order to meet client demands and make long-term financial gains(Nekmahmud & Fekete-Farkas, 2020). Some suggested that consumers' intentions to purchase environmentally conscious goods are largely driven by their awareness of these products and their knowledge of the environment. It was argued that increasing consumers' exposure to environmental concerns and environmentally friendly products is thought to influence and motivate their intentions to purchase environmentally friendly products (Khaleeli et al., 2021). In many nations, the primary source of employment and revenue is the exploitation of natural resources. Natural resources serve a vital function in the company's survival, but they also aid the environment by acting as a catalyst for the provision of services including regulation, flood control, natural facilities, and cultural services(Debora Indriani et al., 2019). Green consumers are therefore essential to the green revolution since eco-friendly consumption is essential for a viable future as well as having a beneficial impact on the environment, society, and economy (Wijekoon & Sabri, 2021). Through intentional learning and incidental learning techniques, consumers improve their knowledge of green products, and their degree of knowledge has gradually risen (H. Wang et al., 2019). Customers' intentions to make green purchases are an important gauge of their overall behaviors regarding the environment, hence it is crucial for businesses to research the variables influencing these intentions in order to develop effective marketing plans (Zhuang et al., 2021). Prior research indicates that green purchasing intentions are influenced by communal and personal factors alike. Additionally, prior research has shown that social and personal aspects influence what customers think towards environmental issues and their intentions to make conscientious purchases (S.-T. Wang, 2014). An individual's mindset and willingness to utilise green products are also influenced by social factors. Social contacts with other people or groups have the power to alter a person's ideas, feelings, attitudes, or behaviors (Purboyo et al., 2022). A number of factors, including cost, product accessibility, and social incentives from competing goods, contribute to the disparity between consumer attitudes and buying habits (Moslehpour et al., 2023). A person's social circle, which includes friends, family, coworkers, and business associates, can have a big impact on them (Purboyo et al., 2022). To put it simply, a survey of previous investigations on environmentally conscious grabbing suggests that not many have utilised empirical methods to look at how consumers' personal talents and subjective criteria relate to their intentions to make eco-friendly purchases from a holistic point of view. Thus, the current study's objective is to investigate the variables influencing customers' inclinations to buy environmentally friendly items in a developing country. Simultaneously, the study examines how social impact mediates this relationship. The study's findings demonstrate that, through mitigating the effect of social influence, knowledge about the environment positively affects the intention to make green purchases.

Questions

1. What is the impact of Environmental Knowledge on Green Purchase Intention?

2. What is the impact of Environmental Knowledge on Green Purchase Intention with mediating role of social influence?

Objective:

1. To study the impact of Environmental Knowledge on Green Purchase Intention.
2. To study the impact of Environmental Knowledge on Green Purchase Intention with mediating role of social influence.

Literature review:

Green Purchase Intention:

These terms are used in research papers to assess the green purchasing behavior among consumers through the terms like green purchasing, green acquisition, and environmentally responsible purchasing(Zaremohzzabieh et al., 2021). There is some endogeneity between green consumerism and green purchase intentions. For green purchase intention, it relates the customer behavior to the evaluation of the customer interest in green products(Departement of Hospitality, Universitas Internasional Batam, Batam, Indonesia. et al., 2019). These products are referred to as environmental or environmentally conscious, and it is frequently discovered that they use less packing than standard goods, recyclable to some scope, or use fewer harmful components during production or packaging. All of these actions will help to minimise any adverse impacts on the nearby natural environment. Organic tea, natural body care products, recycled goods, energy-efficient technology, hybrid autos, and green cars are a few examples of environmentally friendly products that are generally thought to be safer(Al-Gasawneh & Al-Adamat, 2020).Paul et al. (2016) define intention as a person's motivation in cognition to use the effort to carry out a particular behaviour(L. Wang et al., 2020). Generally speaking, green shopping refers to choosing environmentally beneficial products while ignoring those that harm the environment. The main tools for green purchasing are green purchase intention and practice(Moslehpour et al., 2023). Green purchasing intention, which indicates that a client intends to purchase a green product if it is appealing to them, is an important element of the overall green purchasing activity of a consumer(Al-Gasawneh & Al-Adamat, 2020). Prior to utilising a good or service, there is a mental process called as intention that occurs inherently(Pratiwi et al., 2018). It is postulated to be the propensity for individuals to choose environmentally conscious goods over less beneficial to the environment alternatives when making a purchase(Ahmad & Zhang, 2020). Green purchasing intention in respect of a particular product has been defined as the consumer’s buying commitment to purchase a particular amount or volume of green product(Amin & Tarun, 2021). Since the purpose of marketing is to persuade consumers to choose the company’s products, it is important for marketers to determine factors that influence consumers’ decisions to use products offered by the company(Debora Indriani et al., 2019).The intention to buy green items is preceded by environmental understanding. It is possible to draw inferences that the study's findings is far from definitive, which means that additional study of this relationship must be conducted(Khaleeli et al., 2021). Indicators such as considering to buy, prioritising to buy, feeling to buy, as well as getting urges to buy may be utilised to evaluate the intention to acquire environmentally(Departement of Hospitality, Universitas Internasional Batam, Batam, Indonesia. et al., 2019). Because green customers felt a product or brand had sufficient green ingredients, they might generate less pollutants for the environment and improve sustainability. This is why they bought it(Chang, 2015). In general, purchasing intention is considered as one of the basic antecedent that fosters and drives clients to make that desired purchase and acquire the products and services(Zhuang et al., 2021).

Social Influence:

"Social and cultural factors" and "education" could both contribute to pro-environmental understanding(Maurer & Bogner, 2020). As social beings, consumers have been subtly impacted by the social environment, which includes media coverage, government regulations, and the numerous environmental advocacy groups(Dong, 2020). It has been noted on multiple occasions that people alter as well as adjust their opinions and activities in an attempt to make themselves fit alongside other social strata or the norms(Varshneya et al., 2017). Notably, a lot of businesses reduce their spending on other conventional marketing strategies since they view word-of-mouth as a potent marketing instrument(Zahid et al., 2018). Via the information articles and entertainment shared on social networks, people interact socially and create personal information stuff for others to access for self-expression(Sun & Xing, 2022). The term subjective norm was defined as the perceived ethical requirement that individuals think they are expected to, or should not, perform a particular activity. Individuals can be working under pressure in the sense that other people make them decide on something. It shows how the actions of an individual are manipulated by the society ; that is how that individual will be seen by the reference group if they are to perform certain actions(Zhuang et al., 2021). "The social pressures that an individual experiences from significant others or from society at large to engage in a specific behaviour" is the definition of social influence. Socially affected consumers are more inclined to take into account the advice of those who are significant to them, which in turn affects their choice of products(Sadiq et al., 2021). Recent studies have focused on what are known as "network-based approaches" to social influence, which claim that influence is caused by the position one holds in a social environment whilst interactions with other people who are part of the network serve as the pathways for social influence(Spears, 2021). It has been observed on numerous times that people adapt as well as twist their viewpoints and behaviours in order to fit in with other social groups or the standards(Varshneya et al., 2017). A social network is a graph of connections and exchanges throughout people in a group, therefore it is acts used as an essential conduit for the propagation of knowledge, concepts, and power among its constituents(Y. A. Kim & Srivastava, 2007)

Environmental Knowledge:

Knowledge refers to information that that is imprinted in the memory of a consumer and effects his/her perception and evaluation of information processing, preference, as well as green products' purchase behaviors. The understanding of the environmental protection features and benefits of green products is perceived higher the more the customers are informed about them(H. Wang et al., 2019). This means that environmental awareness of the customers could be a consideration that affects the tendency to purchase the product. To what extent a given client is aware of these environmental issues and possible solutions to them will influence that same client to purchase products more deliberately, and in the process strive to estimate the impact those products will have on the environment, as well as on his or her wellbeing(Debora Indriani et al., 2019). Customers that have a longer history of environmental awareness are inclined to be happy to invest greater income on green items and to purchase them(Liu et al., 2020). Environmental knowledge relates to awareness and comprehension of the natural world, and it promotes personal accountability for those who have the greatest ability to save the environment(Departement of Hospitality, Universitas Internasional Batam, Batam, Indonesia. et al., 2019). First of all, environmental literacy is defined not only as the awareness of biological and environmentally related subjects, but certain skills indicating a constant concern and attitude towards the environment(Kamil et al., 2020). Environmental knowledge, sometimes referred to as comprehending environmental problems, includes information about the natural world, temperature rises, environmental viewpoints, and the detrimental impacts of consumerism and industry(Saari et al., 2021). "The ability to identify the images, concepts, and actions related to environmental integrity that line up with earlier acquired

environmental knowledge" is the definition of environmental knowledge(Liobikienė & Poškus, 2019). Though generic environmental knowledge is more widely available to the public and hence of higher public value, a specific environmental knowledge is typically restricted to specialists and places greater emphasis on scientific truth and validity(Liu et al., 2020). Environmental knowledge is defined as understanding environmental issues and how they may later materialise in day-to-day activities(Kamil et al., 2020). Environmental awareness encourages a variety of groups, especially the impoverished, to participate in effective studies by exhibiting their local expertise, knowledge, principles, and practices—often in place-based settings(Ardoin et al., 2020). One of the best ways to teach young people about environmental issues and stop environmental degradation is through education(Zeng et al., 2023).In light of the above, environmental knowledge promotes people's opinions and intentions via offering knowledge about possible remedies and remediation plans in addition to the detrimental effects of environmental challenges(Saari et al., 2021). In the context of green consumption, customers' confidence in the advantages of consuming green products is correspondingly more the more knowledge they possess about green items(H. Wang et al., 2019). The investigation examines the relationship between green purchasing intents for environmentally friendly commodities and factor analysis of environmental knowledge, based on the phenomena of consumer buying patterns for environmentally friendly products(Departement of Hospitality, Universitas Internasional Batam, Batam, Indonesia. et al., 2019). Analysis demonstrates that customers' purchasing intentions for sustainably produced goods are moulded by social influence as well as by becoming acquainted with additional environmentally meticulousness customers (Purboyo et al., 2022). This research fills in the gaps in the literature and advances our knowledge of how consumer traits—like collective thinking and external sources of control—and social influence factors—like environmental information and subjective norms—affect consumers' intentions to make green purchases(S.-T. Wang, 2014).

Research Hypothesis:

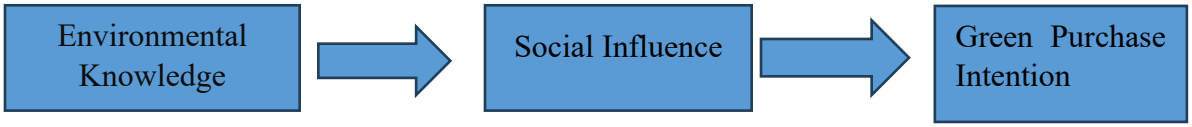
H1: There is a positive relationship between Environmental Knowledge and Green Purchase Intention.

This hypothesis suggests that individuals with greater understanding of environmental issues (environmental knowledge) are more likely to choose eco-friendly products (green purchase intention). In simpler terms, the more people know about the environment and the potential negative impacts of traditional consumption, the stronger their inclination might be to favor options that minimize environmental harm.

H2: Association of Environmental Knowledge and Green Purchase Intention is being mediated through Social Influence.

This hypothesis proposes that the link between environmental knowledge and the desire to purchase eco-friendly products (green purchase intention) is influenced by social factors. In other words, while knowledge about environmental issues might spark an initial interest in sustainable choices, a person's decision to actually buy green products is further impacted by the social environment. This implies that factors like witnessing friends, family, or society embracing eco-friendly practices can significantly strengthen the connection between environmental awareness and translating that awareness into purchasing behavior.

Research Framework:



Methodology:

Research Instrument

Of all the areas of research, the one that is often considered to be the most critical one is the collection of data. Research Instrument is that through which research data is collected and the degree of measurement of the variable is determined in a study. This instrument of data collection should be reliable and valid. In this research, data collection and analysis were done using the self – administered survey questionnaires. The research questionnaire is divided into two sections; section 1 is a demographic section comprised of 5 questions & section 2 consists of 13 statement.

Population

For this study, population will consist of students from the Government Sadiq College Women University Bahawalpur (GSCWU).

Sample Size

Sample size relates to the number of subjects involved in research was revealed. As in this research the number of participant means how many students will be included in research. Responding to this research, the population of concern was computed to be 5,651 students with a probability error margin of 1% to 5% and the sample size estimated at 371. Thus the sample size is determined with the help of Yamane's formula for calculating sample size which is as follows:

n = N/(1+N(e)2.

The variables in this formula are:

n = the sample size

N = the population of the study

e = the margin error in the calculation

Sampling Techniques

Since the population for this research is identified, non-probability sampling is employed. All members have equal opportunities of being selected. Responses were collected by the means of convenience sampling.

Methods & Participants

This kind of study can be categorized as exploratory and descriptive type of study. The data collection was done in this research employing the primary sources. Data collection is an essential aspect in any given survey, and the instruments that were used in this survey include Questionnaire. Primary sources of data were used in the study and these include a google form survey of filled responses by the use of a designed questionnaire. Questionnaire had two sections namely. These questions were Demographics: gender, Age etc which were seen in the first part of the survey. The second part of this questionnaire was included of questions in which participants were asked to rate the statements and their responses were measured on the five point likert scale of Environmental knowledge, Green Purchase Intention and Social influence. The given scale is designed such that a score of 1 corresponds to 'strongly disagree,' 2 to 'disagree,' 3 to 'neutral,' 4 to 'agree,' and 5 to 'strongly agree.'

Tools & Test for Analysis

For the purpose of data analysis SPSS software was used.

Test for data analysis were:

Descriptive Statistics

Standard Deviations

Correlations Analysis
Regression Analysis
Mediation Analysis
Reliability test
Normality test

Data Analysis & Interpretations:
Analysis of research data is given in following paragraphs:
Demographic Part:

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	253	100.0	100.0	100.0

This table reveals demographic data regarding gender and it clearly depicts that each of the respondents believes is female. The frequency of the gender column indicates that there are 253 female respondents, out of which 100% were considered as valid. The percent columns revealed that all the figures are consistent and the cumulative percent supports the idea that all the respondents have been measured under the given classification of female gender.

Marital Status					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	234	92.5	92.5	92.5
	Married	19	7.5	7.5	100.0
	Total	253	100.0	100.0	

The following table provides information on the marital status of respondents. The last column shows the frequency of respondents that fell under each category. Out of total participants 234 users responded single (92. 5%) and 19 users responded married (7. 5%) on valid responses. The cumulative percent also indicates that all respondents (100%) have been covered in these two categories showing the marital status of the total of 253 respondents. The following table provides information on the marital status of respondents.

Education level					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor's degree (e.g. BA, BS)	253	100.0	100.0	100.0

This table presents the education level of the respondents, and it shows that all the respondents have at least a Bachelor’s degree and this includes BA and BS. The “Frequency” column reveals that 253 people are in the category; therefore, the percentage response is 100%. The Valid Percent and Cumulative Percent columns also show the figure 100% in this educational qualification of respondents extracting a homogeneous educational qualification of respondents among the surveyed group.

Occupation					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Salaried	16	6.3	6.3	6.3
	Business	14	5.5	5.5	11.9
	Unemployed	223	88.1	88.1	100.0
	Total	253	100.0	100.0	

The following table also categorizes the respondents according to their occupation. Out of all the correct answers, fifteen people or 6. 3% of the population, receives a salary and you have 15 employees; 5 of them or 3% receive a salary. Some 5 percent of people engage in business. In this aspect, 88. 1% of the total number of 253 persons are jobless. This is in fact evidenced by the cumulative percent that you can notice depicts all the respondents in the three categories foregoing topping up to 100% of the surveyed population. This division will show one of the major facets of joblessness portrayed in the given set of data.

Reliability Statistics Analysis:

Reliability Statistics	
Cronbach's Alpha	N of Items
.856	3

This table provides reliability statistics using Cronbach's Alpha coefficient for Cronbach's Alpha and N of items. N of Items refers to the number of items included in the scale or measurement. In this case, there are 3 items contributing to the scale. The Cronbach's Alpha coefficient of .856 indicates that the three items are highly reliable in measuring whatever construct they are designed to assess. With a high reliability coefficient like this, it suggests that the items are consistent in their measurement and that their scores can be considered dependable and stable for assessing the targeted construct. Overall, a Cronbach's Alpha of .856 is generally considered quite good, indicating strong internal consistency among the items in the scale.

Normality Test & Descriptive Statistics analysis:

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
GPI_avg	253	3.75	1.25	5.00	3.7401	.04399	.69963	.489	-.359	.153	.489	.305
EK_avg	253	3.67	1.33	5.00	3.6983	.04219	.67103	.450	-.119	.153	.333	.305
Valid N (listwise)	253											

This table provides descriptive statistics for two variables: GPI (Green Purchase Intention) and EK (Environmental Knowledge) among 253 respondents. 'N' indicates the number of valid cases included in the analysis, which is 253 for both variables. Range represents the difference between the maximum and minimum values observed in each variable. For GPI, the range is 3.75 (from 1.25 to 5.00), and for EK, the range is 3.67 (from 1.33 to 5.00). Minimum shows the lowest value recorded for each variable. GPI has a minimum of 1.25, and EK has a minimum of 1.33. Maximum displays the highest value recorded for each variable. Both GPI and EK have a maximum value of 5.00. Mean represents the average or arithmetic mean of the scores. For GPI, the mean is 3.7401, and for EK, the mean is 3.6983. Std. Deviation measures the amount of variation or dispersion among scores.

For GPI, the standard deviation is approximately 0.69963, and for EK, it is approximately 0.67103. For GPI, the variance is approximately 0.489, and for EK, it is approximately 0.450. A skewness value of -0.359 for GPI and -0.119 for EK suggests a slight leftward skew, indicating a tendency for more scores to be on the higher end. Kurtosis measures the "tailedness" of the distribution of scores compared to a normal distribution. A kurtosis value of 0.153 for both GPI and EK indicates a fairly normal distribution, with moderate peakness compared to a normal distribution. In summary, these descriptive statistics provide a comprehensive overview of the distribution, central tendency, variability, skewness, and kurtosis of the GPI and EK scores among the respondents.

Inferential Analysis

Correlation Analysis:

This correlation values shown in table provides insights into the relationships between three variables: EK (Environmental Knowledge), GPI (Green Purchase Intention), and SI (Social Interaction).

Correlations

		EK	GPI	SI
EK	Pearson Correlation	1	.689**	.738**
	Sig. (2-tailed)		.000	.000
	N	253	253	253
GPI	Pearson Correlation	.689**	1	.608**
	Sig. (2-tailed)	.000		.000
	N	253	253	253
SI	Pearson Correlation	.738**	.608**	1
	Sig. (2-tailed)	.000	.000	
	N	253	253	253
**. Correlation is significant at the 0.01 level (2-tailed).				

EK and GPI: The Pearson correlation coefficient between EK and GPI is .689**. This indicates a strong positive correlation between Environmental Knowledge and Green Purchase Intention scores. The correlation is highly significant ($p < .01$), suggesting that individuals with higher Environmental Knowledge tend to also have higher Green Purchase Intention scores.

EK and SI: The Pearson correlation coefficient between EK and SI is .738**. This indicates a sturdy superb correlation among Environmental understanding and Social have an effect on rankings. This correlation is also notably large ($p < .01$), indicating that better Environmental understanding is related to better Social interaction ratings.

GPI and SI: The Pearson correlation coefficient between GPI and SI is .608**. This denotes a robust high quality correlation among inexperienced buy goal and Social influence ratings. just like the others, this correlation is fairly significant ($p < .01$), suggesting that people with higher inexperienced purchase purpose scores additionally have a tendency to have higher Social impact scores.

In precis, all correlations inside the table are statistically massive at the 0.01 stage (2-tailed), indicating robust relationships between Environmental know-how, inexperienced buy intention, and Social have an impact on rankings most of the 253 respondents. those findings endorse that those components of individuals' profiles are intently related, with higher rankings in one generally corresponding to higher scores in the others.

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	58.592	1	58.592	227.097	.000[b]
	Residual	64.759	251	.258		
	Total	123.350	252			
2	Regression	61.291	2	30.646	123.453	.000[c]
	Residual	62.059	250	.248		
	Total	123.350	252			
a. Dependent Variable: GPI						
b. Predictors: (Constant), EK						
c. Predictors: (Constant), EK, SI						

This table gives the effects of ANOVA (analysis of Variance) models for the structured variable GPI. These values indicate that the regression model with EK as a predictor appreciably explains variance in GPI. The F-statistic of 227.097 and a considerable p-value ($p < .001$) recommend that the version is statistically sizable. both fashions reveal tremendous relationships among the predictors (EK, and in version 2, EK and SI) and the based variable GPI. The excessive F-records and occasional p-values ($p < .001$) in each fashions imply that the regression equations are legitimate and that the predictors together make a contribution extensively to explaining the variance in GPI. The residual sections display the variance that remains unexplained by way of the predictors, which is incredibly small compared to the full variance, indicating suitable model in shape. In summary, these ANOVA effects affirm that each EK and, in version 2, EK and SI are huge predictors of GPI, presenting treasured insights into the relationships among those variables inside the dataset.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.083	.179		6.041	.000		
	EK	.719	.048	.689	15.070	.000	1.000	1.000
2	(Constant)	1.066	.176		6.061	.000		
	EK	.550	.069	.527	7.936	.000	.456	2.195
	SI	.179	.054	.219	3.298	.001	.456	2.195
a. Dependent Variable: GPI								

This table presents the coefficients from two regression models predicting the dependent variable GPI (green purchase purpose). Constant represents the anticipated price of GPI whilst all predictor variables (EK and SI) are 0. EK Coefficient in Model 1, for each unit increase in EK, GPI is expected to increase by 0.719 units. In Model 2, the coefficient decreases slightly to 0.550 when controlling for SI. SI Coefficient (Model 2) shows when SI is included in the model, for each unit increase in SI, GPI is expected to increase by 0.179 units. Standardized Coefficients (Beta) indicate the relative importance of each predictor variable in explaining the variation in GPI, considering the scales of the predictors. Both EK and SI have positive standardized coefficients, suggesting they contribute positively to GPI. T-values in table indicates the significance of each coefficient. All predictors have t-values that are statistically significant ($p < .05$ or $p < .001$), suggesting that both EK and SI significantly predict GPI. Collinearity Statistics (Tolerance and VIF**)** provide information about multi-collinearity between predictors. Tolerance values close to 1 and VIF values below 5 generally indicate no issues with multi-collinearity. However, in Model 2, the predictors have lower tolerance

(0.456) and higher VIF (2.195), indicating some moderate multi-collinearity between EK and SI. In summary, these coefficients indicate that both EK and SI are significant predictors of GPI. EK has a stronger influence on GPI, while SI also contributes positively when included in the model, albeit with some indication of multi-collinearity in Model 2.

Model Summary

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.689[a]	.475	.473	.50794	.475	227.097	1	251	<.001	
2	.705[b]	.497	.493	.49823	.022	10.875	1	250	.001	1.919

a. Predictors: (Constant), EK_avg

b. Predictors: (Constant), EK_avg, SI_avg

c. Dependent Variable: GPI_avg

the provided regression model summary table offers insights into the relationships between predictors and the dependent variable, GPI. The models examined aim to elucidate how certain factors, namely EK (Environmental Knowledge) and SI (Social Influence), contribute to explaining variations in GPI. Initially, Model 1 reveals a significant correlation (R = 0.689) between EK and GPI, with EK alone accounting for 47.5% (R Square = 0.475) of the variance in GPI. This model suggests that EK plays a substantial role in predicting GPI, as evidenced by its statistically significant F Change statistic (F = 227.097, p < 0.001). The low standard error of the estimate (0.50794) further indicates the model's reliability in predicting GPI based on EK. Expanding upon Model 1, Model 2 incorporates SI alongside EK to enhance the predictive capacity for GPI. The correlation coefficient increases marginally to 0.705, indicating a stronger overall relationship when both predictors are considered. Model 2 explains 49.7% of the variance in GPI (R Square = 0.497), reflecting a notable improvement in predictive power compared to Model 1. This improvement is statistically supported by the significant F Change statistic (F = 10.875, p = 0.001), which demonstrates that the inclusion of SI significantly enhances the model's ability to explain GPI beyond EK alone. However, it is important to note that the Durbin-Watson statistic for Model 2 (1.919) suggests the presence of positive autocorrelation in the residuals, which could imply that the model may not fully capture all underlying dependencies in the data. This autocorrelation warrants further investigation to assess the robustness of the model's assumptions and conclusions.

Discussion of the studies questions

First Research Question:

What is the impact of Environmental Knowledge on Green Purchase Intention?

Environmental Knowledge (EK) shows a strong positive impact on Green Purchase Intention (GPI) based on the correlation coefficient and regression results. The Pearson correlation coefficient between EK and GPI is 0.689 (p < 0.01). This indicates a strong positive correlation between Environmental Knowledge and Green Purchase Intention scores among the respondents. Higher levels of Environmental Knowledge are associated with higher Green Purchase Intention scores. Both correlation and regression results consistently show that Environmental Knowledge (EK) has a strong positive impact on Green Purchase Intention (GPI). This means that individuals with higher levels of Environmental Knowledge tend to exhibit stronger intentions to engage in green or environmentally friendly purchasing behaviors. The high R Square values in both models indicate that EK, along with SI in Model 2, provides substantial explanatory power for GPI. This suggests that understanding and knowledge about environmental issues significantly influence consumers' intentions to make environmentally responsible purchase decisions.

Second Research Question:

What is the impact of Environmental Knowledge on Green Purchase Intention with mediating role of social influence?

Environmental Knowledge (EK) shows a strong positive correlation with Green Purchase Intention (GPI) with a Pearson correlation coefficient of 0.689 ($p < 0.01$). This suggests that individuals with higher Environmental Knowledge tend to have higher intentions to engage in green purchasing behaviors. Social Influence (SI) also demonstrates a strong positive correlation with both EK (Pearson correlation of 0.738, $p < 0.01$) and GPI (Pearson correlation of 0.608, $p < 0.01$). This indicates that higher Environmental Knowledge is associated with higher Social Influence scores, and higher Green Purchase Intention scores are associated with higher Social Influence as well. EK alone explains 47.5% of the variance in GPI (R Square = 0.475). This suggests that a substantial portion of the variation in Green Purchase Intention can be attributed to Environmental Knowledge alone. The significant F Change statistic ($F = 227.097$, $p < 0.001$) underscores the robustness of EK as a predictor of GPI. When SI is included alongside EK, the variance explained in GPI increases to 49.7% (R Square = 0.497). This indicates that Social Influence adds an additional explanatory power to the model beyond Environmental Knowledge alone. The significant improvement in F Change statistic ($F = 10.875$, $p = 0.001$) when SI is added suggests that SI mediates the relationship between EK and GPI to some extent. Thus Environmental Knowledge (EK) directly influences Green Purchase Intention (GPI). Individuals with greater EK are more likely to have higher intentions to engage in green purchasing behaviors. Also Social Influence (SI) mediates the relationship between EK and GPI. This means that part of the influence of EK on GPI operates through its impact on Social Influence. As EK increases, it not only directly enhances GPI but also indirectly influences GPI through increasing Social Influence.

Conclusion and Limitations

This chapter states the conclusion drawn from the analysis of the data and some suggestions. In the long run, it states viable barriers of present day look at and offer destiny instructions of this studies.

Conclusion

The research look at delves into the full-size relationships between Environmental knowledge (EK), Social influence (SI), and green purchase intention (GPI). The findings advise that EK plays a pivotal function in predicting GPI, with a tremendous direct affect and an oblique effect mediated by Social influence (SI). Incorporating each EK and SI complements the predictive potential for GPI, emphasizing the importance of thinking about more than one factors in information and selling inexperienced buying behaviors. The look at underscores the need for environmental schooling and recognition campaigns to enhance GPI, presenting treasured insights for businesses and policymakers aiming to inspire sustainable consumer choices. organizations and policymakers inquisitive about promoting inexperienced consumption behaviors should consider techniques to enhance clients' Environmental know-how. this can contain academic campaigns, statistics dissemination approximately environmental effects of products, and promoting alternatives.

Suggestions

For future research on "The impact of Environmental knowledge on green purchase intention. The mediating role of Social influence," it's far endorsed to adopt a complete method that integrates quantitative surveys with qualitative methods such as interviews or cognizance organizations. This combined-technique layout could permit for a deeper exploration of the underlying motivations and perceptions using people' green purchase intentions. Moreover, incorporating a longitudinal evaluation to track adjustments in environmental knowledge, social influence, and green purchase intention through the years ought to offer treasured insights into the dynamics of those relationships.

Comparative studies throughout diverse demographic agencies or industries can provide a nuanced understanding of how environmental knowledge and social have an effect on interact to shape green consumer behavior. Furthermore, exploring the role of era, behavioral economics concepts, and cultural influences in influencing green purchase aim can enrich the observer's findings and contribute to extra holistic understanding of sustainable intake practices. by means of considering those pointers and embracing a multidimensional research method, future studies can develop our knowledge of the complicated interplay among environmental expertise, social have an impact on, and green purchase purpose, ultimately informing techniques for selling sustainable consumer behavior

Limitations

The observers pattern length can also had been limited, probably affecting the generalizability of the findings to a bigger population. A bigger and more various pattern should offer a greater complete know-how of the connection between environmental knowledge, social influence have an impact on, and green purchase intention. Using convenience sampling may additionally introduce bias into the consequences, as participants self-pick to be a part of the observe. This can impact the representativeness of the sample and the validity of the conclusions drawn. The reliance on self-pronounced records through questionnaires can also introduce reaction bias or social desirability bias, wherein participants offer solutions they agree with are socially suited in preference to reflecting their proper behaviors or attitudes. The have a look at move-sectional layout may additionally restrict the capability to set up causal relationships among variables. Longitudinal research may want to offer greater insights into how environmental know-how, social have an impact on, and inexperienced buy purpose evolve over the years. The observe may not have accounted for all capability contextual elements that could influence green buy purpose, including cultural variations, economic conditions, or advertising strategies. Thinking about a broader variety of variables ought to beautify the study's explanatory energy. While the examine tested the mediating position of social impact, other capacity mediators or moderators of the relationship between environmental knowledge and green purchase goal might not were explored. destiny studies could delve deeper into these mechanisms. The reliability and validity of the size tools used to evaluate environmental understanding, social have an effect on, and inexperienced purchase aim must be considered. ensuring the robustness of those units is vital for the accuracy of the study consequences. Via acknowledging these barriers, destiny studies can build upon this observer's findings and deal with those constraints to in addition enhance our expertise of the impact of environmental know-how and social impact on inexperienced purchase goal.

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Questionnaire

This questionnaire is developed by Faiza Sami, a BBA student of GSCWU Bahawalpur. I would sincerely appreciate if you could take some time off from your busy schedule to help me fill this research questionnaire, which I've developed to collect data on your views with regard to **"Impact of Environmental Knowledge on Green Purchase Intention. Mediating role of Social Influence".** This research outcome will only be utilized for the purpose of my Bachelor degree thesis.

This survey is separated in two parts. **Part 1: Demographic Information** and **Part 2: Questionnaire.** This survey will only take about 8-10 minutes.

Part 1

Demographic Information

Gender

- Male
- Female
- Prefer not to say

Marital Status

- Single
- Married

Education level

- Less than a high school degree
- High school degree or equivalent
- Bachelor's degree (e.g. BA, BS)
- Doctorate (e.g. PhD, EdD)
- Other

Occupation

- Salaried
- Business
- Unemployed

Part 2

Questionnaire

I am very knowledgeable about environmental issues.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

I am confident that I know how to sort my recyclables properly.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

I understand the environmental phrases and symbols on product packages.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

I know how to select products and packages that reduce the amount of waste ending up in landfills.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

I know more about recycling than the average person.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

I know that I buy products and packages that are environmentally safe.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

I want to purchase green products.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

I plan to purchase green products.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

The price of green products would have to go up quite a bit before I would switch to other conventional products.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

I am willing to pay a higher price for green products than for conventional products.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

My Friends, often, recommend environmentally friendly products to me.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

My friends often go shopping for environment-friendly products with me.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

My friends often share their experiences and knowledge about environment-friendly products with me.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree