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SUSTAINABLE CONSUMPTION DRIVERS: THE ROLE OF ENVIRONMENTAL CONCERN, KNOWLEDGE, AND TRUST IN SHAPING GREEN PURCHASE INTENTION

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ABSTRACT

This study investigates the psychological mechanisms underlying green consumer behavior in Algeria. More specifically, this research focuses on the determinants of ecological purchase intention of consumers in Algeria. Through a quantitative approach involving 652 Algerian respondents, the research explores the relationships between environmental concern, ecological knowledge, attitude towards green products, and purchase intention via questionnaire survey. The study employs a causal model analysing the impact of environmental concern and ecological knowledge on green product attitudes, and subsequently on purchase intention. A unique aspect of the research is examining green trust as a potential moderating variable. Using regression analysis, the statistics reveal that environmental concern significantly influences green product attitudes, while ecological knowledge does not show a statistically significant impact. The results confirm a strong relationship between attitude and purchase intention, highlighting the importance of emotional engagement in green consumption. The research contributes to marketing literature by providing insights into green consumer behaviour in an emerging market context, offering practical implications for businesses seeking sustainable marketing strategies. The study's findings suggest that environmental education should focus on emotional involvement rather than purely informative approaches, presenting a nuanced understanding of green consumption dynamics in Algeria, which have policy implications for higher education.

KEYWORDS: Green Consumption; Environmental Consciousness; Purchase Intention; Green Marketing; Consumer Behaviour; Algeria.

1. INTRODUCTION

Global ecological awareness has surged in recent years amid intensifying climate change. Multiple international surveys confirm that an overwhelming majority of people now view climate change as an urgent threat requiring action – for instance, about 80% of respondents worldwide want stronger government measures on the climate crisis (UNDP, 2024), and over 70% consider climate change a “major threat” to their country (Clean Energy Wire, 2023). In response, businesses across the globe are increasingly integrating sustainability into their core strategies and product offerings. Corporations – as primary emitters of greenhouse gases – are under mounting pressure to serve as key agents of climate mitigation and adaptation (Wright & Nyberg, 2024). Many firms have accordingly begun to invest in greener practices and marketing, from setting carbon-neutral targets to labeling consumer goods as “eco-friendly” or “fair trade” in order to cater to eco-conscious demand (Frey et al., 2023; Zaiem, 2005, Hossain 2025). This trend is not limited to Western markets; it has gained traction globally, including in the Middle East and North Africa. For example, in 2022 more than fifty prominent African companies jointly pledged to back climate action initiatives, underscoring the worldwide scope of corporate engagement with sustainability (United Nations, 2022).

Yet alongside this growing environmental awareness, businesses face a notable rise in green consumer skepticism. Many consumers remain doubtful about the authenticity of corporate green claims, reflecting a history of greenwashing and unfulfilled promises in the marketplace. Recent literature highlights that consumer skepticism toward firms’ sustainability initiatives has become a persistent challenge (Nguyen et al., 2023). Years of deceptive or exaggerated “green” marketing – coupled with perceived corporate hypocrisy – have eroded public trust (Kapitan, 2022; Nguyen et al., 2023). As a result, consumers now scrutinize eco-friendly products and advertisements more critically, often suspecting that companies might be hiding unsustainable practices behind glossy messaging. Indeed, one study found that a majority of young adults assume a brand is concealing information if it avoids transparency on hot-button issues (Sansome et al., 2024). Paradoxically, while surveys indicate most shoppers claim to value sustainability (e.g. 78% of U.S. consumers say a

“sustainable lifestyle” is important to them), companies still struggle to translate those green intentions into purchase behavior. This attitude-behavior gap in green consumerism is often attributed to low trust and high skepticism: consumers will not fully embrace sustainable products unless they genuinely believe in the brand’s environmental sincerity.

Therefore, businesses today face a strategic and communication imperative in promoting eco-friendly products. Effective sustainability marketing requires not only substantive environmental action but also credible, transparent communication to overcome skepticism. Researchers emphasize that transparency and evidence-based messaging are crucial for (re)building consumer trust in green brands (Sansome et al., 2024). Rather than inundating the public with generic claims or excessive technical detail, companies must engage in clear, open dialogue about their ecological efforts, acknowledging concerns and backing up all claims with factual proof (Sansome et al., 2024). Empirical findings further underscore the importance of message clarity: vague or *incomplete* environmental advertising can backfire among highly environmentally conscious consumers, provoking increased skepticism and lower willingness to buy, whereas specific and verifiable claims tend to reduce skepticism and even raise consumers’ willingness to pay for green products (Pham & Barretta, 2024). In sum, the challenge for marketers is twofold – they must genuinely green their business practices and persuasively communicate those achievements. Navigating this challenge means bridging the trust gap with authenticity and transparency so that sustainably minded innovations resonate with consumers rather than falling victim to cynicism. By aligning sincere eco-initiatives with effective communication strategies, companies can better meet the demands of a climate-conscious market and foster more sustainable consumer behavior.

Notwithstanding that green marketing and pro-environmental behavior literature has grown exponentially in the last decades, there is still a salient gap in the comprehension of the dynamics of cognitive, affective, and trust variables on environmental product purchase intention. Specifically, the green trust’s role as a mediating variable remains investigated inadequately, even with heightened consumers’ skepticism regarding sustainability claims (Nguyen et al., 2023; Sansome et al., 2024). The majority of the literature has focused on

examining attitudes and knowledge separately, with minimal incorporation of trust-related issues that could moderate their impact on behavioral intentions (Chen & Chang, 2013).

The present research aims to address the gap in the literature by analyzing the influence of environmental concern, ecological knowledge, and attitudes towards environmentally friendly products on consumers' buying intentions, while also measuring the green trust moderating influence. In emphasizing this interplay, the research answers recent demands for more intricate models mirroring the multifaceted nature of sustainable consumption behaviors (Kapitan, 2022; Asif *et al.*, 2023).

This research is expected to contribute to the literature in several ways. *Theoretically*, it extends existing consumer behaviour models by integrating environmental concern, environmental knowledge, attitude, and green trust into a unified framework for predicting green purchase intention. This comprehensive approach offers a deeper understanding of how both traditional attitudinal determinants and trust-related factors interact to influence green consumption. *Methodologically*, the study employs a rigorous empirical design (survey-based data and advanced multivariate analysis) to test these relationships, thereby enhancing the robustness and validity of findings in the green marketing domain. Finally, *managerially*, the insights from this work will help practitioners and policymakers design more effective sustainability strategies – for example, by highlighting the importance of educating consumers, building green trust (through credible eco-labels and transparent communication), and cultivating positive attitudes toward green products. These contributions collectively advance the academic discourse on green consumer behaviour and provide actionable guidance for promoting sustainable consumption in the marketplace.

2. THEORETICAL FRAMEWORK

2.1. Green Consumption

Green consumption is emerging as a fundamental concept in contemporary understanding of the interactions between individuals, the economy, and the environment. Its origins date back to the 1970s, a period marked by growing awareness of global ecological issues (Peattie & Crane, 2005; White *et al.*, 2019). The industrial and environmental disasters of that era, such as the Bhopal tragedy,

the deterioration of the ozone layer, and oil spills, profoundly transformed the collective perception of the relationship between human activity and planetary preservation (Gleim *et al.*, 2013; Johnstone & Tan, 2015).

Mass consumerism has progressively yielded to a more thoughtful and ethical way of consumption. This has been accomplished through counter-movements that have questioned the model of mass consumption (Alexander & Ussher, 2012). An instance is the voluntary simplicity movement with a rather alternative vision that invites people to live simply and value quality over quantity. Its adherents, "simplifiers," devise practical ways of reducing their consumption: mending, recycling, sharing, reusing, and consuming ecologically friendly products (Carrington *et al.*, 2014; Kumar & Polonsky, 2022).

Fairtrade has also been a cornerstone of this new conscious economy. More than commercial exchange, there are ethical, social, and environmental aspects to this movement (Spaargaren & Oosterveer, 2010; Wiederhold & Martinez, 2018). It seeks to provide options for economically marginalized producers together with ecologically sound production methods. The cornerstones of fair trade are transparency in trade relations, better working conditions, and a pledge to responsible production processes (White *et al.*, 2019).

Consumers today are imagined more than ever as key actors in this process. The notion of "consumer-actor" is best able to capture this emerging role, whereby citizens engage their consumer agency as a means of environmental and social action. The strategy suggests greater sensitivity to the influence of every consumer decision, from the stage of production to that of disposal. Green consumers do not merely shop anymore; they interrogate the production processes, labor conditions, and environmental footprint of products they consume (Nguyen *et al.*, 2023).

Firms have ever more answered to these new needs, creating green marketing and eco-branding strategies. This is no longer a passing trend but rather a structural evolution of business models. Brands that succeed are those that can show they have a real interest in sustainability, going beyond marketing communications. They need to show their environmental accountability through tangible, quantifiable, and transparent actions (Delmas & Burbano, 2011; Kapitan, 2022).

Environmental knowledge plays a crucial role in this transformation process. The more consumers are informed about environmental issues, the more thoughtful and responsible their purchasing behaviors become (Garg, 2021). Studies show a direct correlation between the level of understanding of environmental issues and the adoption of sustainable consumption behaviors. This education occurs through multiple channels: media, educational systems, awareness campaigns, and personal experiences (Testa et al., 2015). However, green consumption cannot be reduced to a set of uniform practices. (Eşsiz et al., 2022). It is available according to different consumer profiles, ranging from the radical environmental activist to the occasionally aware buyer (Iliopoulou et al., 2024). Studies have identified some typologies, including "socially responsible consumers", "locals" who prefer local production, or even "indifferent" who are hardly involved in these processes.

Green consumption determinants are complex and numerous. They combine contextual, personal, and product-based determinants. Contextual determinants include availability and affordability of the product, while personal determinants include environmental consciousness, environmental concern, and personal values. Product-based determinants include trust, loyalty, and perceived behavioral control. Despite these significant strides, the practice of green consumption still faces immense challenges. Skepticism remains in the minds of some consumers about the sincerity of corporate environmental initiatives. The possibility of "greenwashing," where corporations take advantage of environmentalism to suit their interests without a sincere commitment, is a major concern. Therefore, the transition towards more sincere sustainable consumption will require not just individual changes but also far-reaching changes involving all economic and social actors. Green consumption thus represents much more than a passing trend. It embodies a collective and creative response to contemporary environmental challenges, proposing a new model of relationships between individuals, businesses, and their ecosystems. Its continued growth reflects a growing awareness of the interdependence between our consumption choices and the health of our planet.

2.2. Development Of the Conceptual Model and Hypotheses

2.2.1. The Effect of Ecological Concern and Ecological Knowledge on Attitude Toward Ecological Products

Environmental concern is a central concept in understanding green consumer behavior. According to Alibeli and Johnson (2009), it represents individuals' level of awareness of environmental issues and their motivation to address them.

Dunlap and Van Liere (1978) consider it as a global attitude having indirect effects on behavior via behavioral intentions. For Kinneary, Taylor, and Ahmed (1974), the ecologically concerned consumer must adopt purchasing behavior consistent with the conservation of ecosystems.

Empirical research confirms its importance:

- Lin and Huang (2012) demonstrate that consumers who are highly involved in solving environmental problems are more likely to adopt green purchasing behaviors.
- Chamorro and Banegil (2006) highlight the emergence of a new type of consumer expressing environmental concerns in their purchasing decisions.

Several studies have highlighted the characteristics of consumers concerned about ecology (Kinneary, Taylor, and Ahmed, 1974):

- High consumption activity against pollution
- A great openness to new ideas
- A strong interest in how products work
- A high need for security
- An important curiosity

In addition, recent research by Ogiemwonyi et al. (2023) notes that environmental concerns can indirectly influence green purchasing behavior through environmental attitude. Their study demonstrates that highly environmentally conscious consumers develop a more positive attitude toward green products, which subsequently leads to more positive purchasing behavior. Similarly, Balaskas et al. (2023) confirm that highly environmentally conscious consumers show a stronger purchase intention for promoted green products than those who are somewhat environmentally conscious. The work of Mostafa (2006), Pierce et al. (1999), and Stern et al. (1993) confirms the positive impact of environmental concerns on ecological intentions and behaviors.

On the other hand, Adiputra et al. (2023) found that environmental concern has a positive and significant impact on the intention to purchase

natural cosmetic products, this further strengthens the relationship between environmental concern and green purchasing behavior. Thus, we hypothesize:

H1: Environmental concern has a positive impact on attitudes toward green products

According to Fryxall and Lo (2003), environmental knowledge is defined as "general knowledge of facts, concepts, and relationships concerning the natural environment and its major ecosystems." Ajzen (1991) points out that developing an environmentally friendly attitude and behavior requires in-depth knowledge. D'Souza and Lamb (2006) show that reading product labels promotes this environmental knowledge.

Polonsky et al. (2012) distinguish two types of knowledge: general knowledge about the environment and specific product knowledge. Recent studies by Ogiemwonyi et al. (2023) further reinforce this distinction. These authors found that awareness of consequences (a dimension of environmental knowledge) directly influences green purchasing behavior. Their research reveals that when consumers are more aware of the environmental consequences of their actions, their attitudes will be more favorable toward green products and subsequently adopt more environmentally friendly purchasing behaviors.

The work of Barber et al. (2009) reveals that the impact of specific knowledge on green purchasing intention is significantly greater than that of general knowledge. Several studies have established a positive correlation between environmental knowledge and attitudes, including those of Antil (1984), Mostafa (2007), Tanner and Kast (2003), Chan (2001), and Chan and Lau (2000). Thus, we Hypothesize:

H2: Ecological knowledge has a positive impact on attitude toward ecological products.

2.2.2. The Effect of Attitude Toward Eco-Friendly Products on Purchase Intention

Attitudes toward environmentally friendly products are a complex concept at the intersection of several psychological dimensions. According to Ajzen (1991), attitudes can be defined as an individual's tendency to react with a certain degree of favorable or unfavorable appreciation toward objects or phenomena.

In the context of green marketing, Laroche et al. (2001) emphasize that ecological attitude is an important motivation that pushes consumers to pay more for environmentally friendly products.

This psychological dimension directly influences the likelihood of purchase.

In their study on the antecedents of attitude toward green products and its impact on purchase intention, Lestari et al. (2020), using the theory of reasoned action as a theoretical framework, confirm that attitude toward green products has a positive impact on purchase intention. Similarly, Ogiemwonyi et al. (2023) concluded that environmental attitude has a stronger impact on green purchasing behavior than other factors, confirming that attitude is one of the main drivers of green product purchases. Their study showed that consumers who adopt a favorable attitude toward the environment are more likely to purchase green products, such as seeking reusable products, avoiding products with high polluting impacts, and purchasing organic materials.

Numerous studies have confirmed this relationship. Kalafatis et al. (1999), Ajzen (1991), Chan (2001), Paul et al. (2016), Nair and Little (2016), Sparks and Shepherd (1992), and Chen and Deng (2016) have demonstrated that the more favorable the attitudes, the more significant the purchase intentions.

Hartmann and Apaolaza-Ibanez (2012) state that a green purchasing attitude can be likened to a psychological emotion resulting from consumer evaluations. When these evaluations are positive, green purchasing intentions tend to be stronger. This was also confirmed by the work of Adiputra et al. (2023) who demonstrated that attitude towards green brands has a positive and significant impact on the intention to purchase natural care products. Thus, we hypothesize

H3: Attitude towards green purchasing has a positive impact on green purchasing intention.

2.2.3. The Moderating Role of Trust in Green Products

Green trust, defined by Chen (2010) as "a willingness to depend on a product, service, or brand based on belief in or expectations of its credibility, benevolence, and capability concerning its environmental performance," plays a crucial role in the purchasing decision-making process. Trust is a crucial issue in the context of green marketing, given that consumers often face skepticism regarding environmental promises. Recent research by Balaskas et al. (2023) indirectly addresses this issue by analyzing attitudes toward green advertising. Their results show that the perceived credibility of green messages

positively affects consumers' attitudes and purchase intentions. The work of Ogiemwonyi et al. (2023) notes that despite positive attitudes toward green products, actual purchase behavior can be limited by several factors, particularly a lack of trust in green advertising messages. This reinforces the moderating role that trust can play in the relationship between attitudes and intentions.

Several studies have highlighted the importance of this variable. Bang et al. (2000), Fotopoulos and Krystallis (2002), and Vermeir and Verbeke (2008) have shown that lack of trust constitutes a significant obstacle to the purchase of ecological products. The work of Lee et al. (2011) and Schlosser et al. (2006) confirms that green trust is a determining factor promoting consumers' purchasing intentions.

All this research shows that trust is a crucial issue in the context of green marketing, given that consumers often face skepticism regarding

environmental promises. Recent research by Balaskas et al. (2023) indirectly addresses this issue by analyzing attitudes toward green advertising. Their results show that the perceived credibility of green messages positively affects consumers' attitudes and purchase intentions. The work of Ogiemwonyi et al. (2023) notes that despite positive attitudes toward green products, actual purchase behavior can be limited by several factors, particularly a lack of trust in green advertising messages. This reinforces the moderating role that trust can play in the relationship between attitudes and intentions. Thus, we hypothesize that:

H4: Trust in green products moderates the relationship between attitude toward purchasing green products and purchase intention.

To Summarize, the conceptual model of our research is shown in Figure 1.

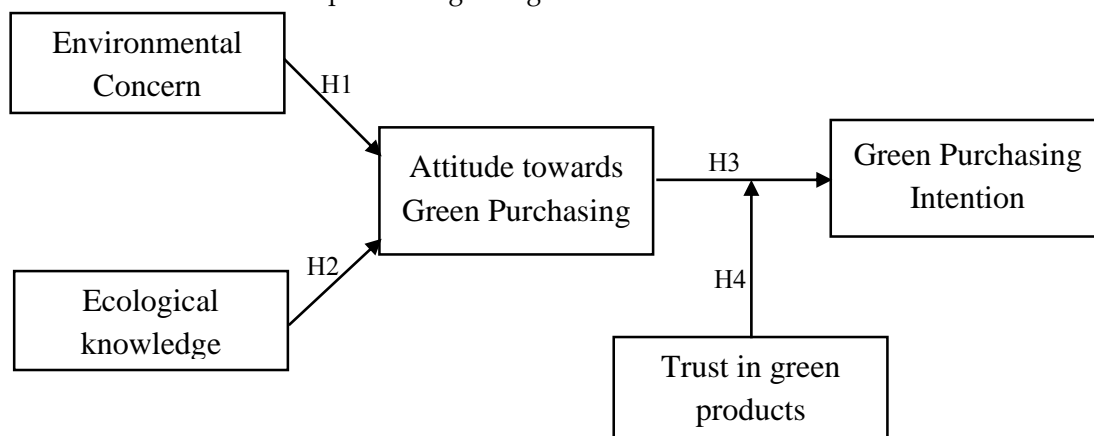


Figure 1: The Conceptual Model of Research.

3. METHODOLOGY

3.1. Research Design

This study employed a quantitative, hypothesis-driven research design to examine the proposed model of green consumption behavior. A cross-sectional survey approach was used to systematically test the theoretical relationships between environmental awareness, consumer attitudes, and purchasing intentions. This hypothetico-deductive design allowed for statistical estimation of the strength of associations among variables and supported generalization of the findings to the broader population of Algerian consumers. The choice of a structured quantitative methodology was appropriate given the explanatory aim of the research – namely, to identify key determinants of green consumption and to elucidate the mechanisms through which environmental

awareness translates into purchase intentions in the Algerian context.

3.2. Sample And Data Collection

The target population for the study consisted of adult consumers in Algeria aged 20 years and above. A non-probability convenience sampling technique was adopted due to practical constraints in reaching a truly random national sample. While convenience sampling limits generalizability, it is a commonly accepted approach in exploratory consumer research and was deemed suitable for this study's initial theory-testing purpose. Data were collected through an online self-administered questionnaire. An invitation to participate was disseminated electronically (e.g., via social media and email networks), allowing for wide geographic reach and real-time monitoring of

responses. Participation was voluntary and anonymous.

A total of 682 completed questionnaires were obtained. This sample size was considered sufficient for the planned statistical analyses and

exceeds minimum recommendations for factor analysis and regression. The final sample was diverse in terms of basic demographics, as summarized in **Table 1**.

Table 1: Sample Characteristics.

Characteristic	Category	Quantity	Percentage
Gender	Man	300	44.0%
	Women	352	56.0%
Age	20-34 years old	530	81.2%
	35-59 years old	111	17.0%
	60 years and over	11	1.8%
Education level	University	551	84.5%
	Secondary	101	15.5%

3.3. Instrumentation

Data were gathered using a structured questionnaire designed specifically for this study. The survey instrument began with a brief introduction explaining the scientific purpose of the research and assuring respondents of confidentiality. The main body of the questionnaire was organized into sections

corresponding to the key constructs of the conceptual model: environmental concern, environmental knowledge, attitude toward green products, purchase intention, and trust in green products. Each of these constructs was measured with a multi-item Likert-type scale adapted from established sources in the literature (Table 2).

Table 2: Measurement Scales.

Variable	Number of items	Ladder	Sources
Ecological concern	5	Likert 5 points	Dunlap et al. (2000)
Ecological knowledge	5	Likert 5 points	Mostafa (2007)
Attitude toward ecological products	5	Likert 5 points	Mostafa (2007)
Purchase intention	5	Likert 5 points	Mostafa (2007)
Trust green products	4	Likert 5 points	Chen and Chang (2014)

Prior to full data collection, the questionnaire was pre-tested with a small convenience sample of 20 individuals who matched the profile of the target population. The pre-test was conducted to ensure that the wording of questions was clear and culturally appropriate, and that the survey flow was logical. Feedback from this pilot test led to minor refinements in item wording and formatting, improving the clarity and user-friendliness of the instrument. After confirming the survey's clarity and content validity, the instrument was finalized for distribution in the main study.

3.4. Translation Procedure

Given the English-speaking origin of the measurement scales used, a rigorous translation process was applied to ensure semantic equivalence between the original and translated versions. By the back-translation method recommended by Vallerand (1989), the statements were first translated into French (or Arabic as needed) and then back-translated into English by independent translators to verify the

accuracy of the meaning. This process ensures the conceptual validity of the items in the targeted cultural context. Appendix 1 presents the details of the items of the selected scales.

3.5. Data Analysis

The analytical process was conducted in two sequential stages, combining exploratory and confirmatory techniques to validate constructs and assess hypothesized relationships. All statistical treatments were performed using IBM SPSS (v26). In the first phase, we applied Principal Component Analysis (PCA) with varimax rotation to assess the dimensionality of the scales. Suitability of the data was confirmed through a Kaiser-Meyer-Olkin (KMO) index exceeding 0.50 and a significant Bartlett's test ($p < 0.001$). Factor retention was guided by standard criteria: eigenvalues above 1, a minimum of 50% explained variance per construct, and item loadings above 0.40. Each set of items loaded cleanly onto a single factor, supporting construct validity. To evaluate internal consistency, Cronbach's alpha was

calculated for each scale, with all values exceeding the 0.70 threshold. These results validated the use of composite scores, computed as the mean of items for each variable.

The second phase involved multiple regression analysis to test the conceptual model. First, we examined the effect of environmental concern and knowledge on attitude toward green products. Then, we tested whether attitude predicted purchase intention, and whether this relationship was moderated by trust. The moderation effect was analyzed by including an interaction term (Attitude \times Trust) in the model. All predictors were mean-centered prior to interaction term computation to avoid multicollinearity. Statistical significance was assessed using standard thresholds ($p < 0.05$), and model fit was evaluated via R^2 and F-tests. This approach allowed us to rigorously test the direct and conditional effects specified in the theoretical framework.

4. RESULTS

4.1. Exploratory Factor and Reliability Analysis

To assess the construct validity of our measurement model, we performed Principal Component Analysis (PCA) for each latent variable using Varimax rotation. The criteria for retention included: (i) a Kaiser-Meyer-Olkin (KMO) index > 0.5 , (ii) significant Bartlett's Test of Sphericity ($p < 0.001$), (iii) eigenvalues > 1 , (iv) explained variance $> 50\%$, and (v) item loadings > 0.4 . As summarized in Table 3, all constructs demonstrated unidimensionality with satisfactory psychometric properties. The variance explained ranged from 63.72% to 80.18%. All items loaded strongly on their intended factor, and Cronbach's alpha values for each construct exceeded 0.80, indicating good internal consistency.

Table 3: Summary Of Pca and Reliability Results.

Construct	KMO	Bartlett (p)	Eigenvalue > 1	Variance Explained (%)	Cronbach's α
Environmental Concern	0.791	< 0.001	Yes	63.72	0.804
Environmental Knowledge	0.781	< 0.001	Yes	67.97	0.841
Attitude (Green Products)	0.897	< 0.001	Yes	80.18	0.937
Green Purchase Intention	0.822	< 0.001	Yes	74.48	0.885
Trust in Green Products	0.812	< 0.001	Yes	74.93	0.888

4.2. Descriptive Statistics

Table 4 displays the descriptive statistics for each variable. Respondents reported high environmental concern and positive attitudes

toward green products. Purchase intention was moderately high, while trust and knowledge were slightly lower. All variables were normally distributed, with skewness and kurtosis values within acceptable ranges (± 1).

Table 4: Descriptive Statistics of Key Constructs (N = 682).

Construct	Mean	SD	Skewness	Kurtosis
Environmental Concern	4.20	0.65	-0.68	0.41
Environmental Knowledge	3.70	0.74	-0.12	-0.47
Attitude (Green Products)	4.05	0.80	-0.81	0.59
Green Purchase Intention	3.82	0.88	-0.45	-0.21
Trust in Green Products	3.56	0.79	0.06	-0.10

4.3. Correlation Analysis

Pearson correlations (Table 5) show significant positive relationships between all constructs. Notably, attitude correlated strongly with purchase intention ($r = 0.64$, $p < 0.001$).

Environmental concern had a stronger correlation with attitude than ecological knowledge. Trust also exhibited meaningful correlations with both attitude and purchase intention.

Table 5: Pearson Correlation Matrix.

Variable	1	2	3	4	5
1. Environmental Concern	1				
2. Environmental Knowledge	0.40**	1			
3. Attitude	0.57**	0.45**	1		
4. Purchase Intention	0.44**	0.30**	0.64**	1	
5. Trust in Green Products	0.35**	0.28**	0.50**	0.53**	1

Note: **P < 0.01 For All Correlations. **

4.4. Hypothesis Testing

Multiple linear regressions were used to test H1 to H3, while H4 was assessed using a moderated regression including an interaction term (Attitude × Trust).

H1-H2: Environmental Concern and Knowledge Attitude Environmental concern significantly predicted attitude ($\beta = 0.412$, $t = 7.66$, $p < 0.001$), supporting H1. Ecological knowledge also had a significant, though smaller, effect ($\beta = 0.276$, $t = 5.12$, $p < 0.001$), confirming H2. Concern explained 32.8% of attitude

variance, while knowledge explained 19.2%.

H3: Attitude → Green Purchase Intention Attitude had a strong and significant effect on purchase intention ($\beta = 0.521$, $t = 9.73$, $p < 0.001$), explaining 41.4% of the variance. This provides robust support for H3.

H4: Moderating Role of Trust The interaction term (Attitude × Trust) was significant ($\beta = 0.187$, $t = 3.46$, $p = 0.002$), supporting H4. Trust strengthens the relationship between attitude and purchase intention. Including the interaction term increased the model's R^2 to 0.444.

Table 6: Summary Of Hypothesis Testing Results.

	Path	β	t	p-value	R^2
H1	Environmental Concern → Attitude	0.412	7.66	<0.001	0.328
H2	Environmental Knowledge → Attitude	0.276	5.12	<0.001	0.192
H3	Attitude → Purchase Intention	0.521	9.73	<0.001	0.414
H4	Attitude × Trust → Purchase Intention	0.187	3.46	0.002	0.444*

*Note: R^2 Refers to The Full Model Including Interaction; $\Delta R^2 = +0.03$ Due To Moderation. *

4.5. Multicollinearity Diagnostics

To ensure that multicollinearity did not bias the regression estimates, we examined tolerance

and variance inflation factors (VIF) values for all predictors used in the models.

Table 7: Multicollinearity Diagnostics for Predictors in Regression Models.

Model	Predictor	Tolerance	VIF
Attitude Model (H1-H2)	Environmental Concern	0.61	1.64
	Environmental Knowledge	0.68	1.47
Purchase Intention Model (H3)	Attitude	0.55	1.81
Moderation Model (H4)	Attitude	0.54	1.85
	Trust	0.66	1.52
	Attitude × Trust	0.70	1.42

All VIF values were well below the commonly used threshold of 5, and tolerance values exceeded 0.50, indicating no issues of multicollinearity. This confirms that the regression coefficients can be interpreted reliably, as the predictors contribute unique variance to their respective models.

5. DISCUSSION

Our study examines the factors influencing the intention to purchase ecological products. The results confirm the importance of environmental concern and ecological knowledge in forming positive attitudes toward green products, as well as the significant impact of these attitudes on purchase intention. The positive relationship between environmental concern and attitude toward ecological products (H1) is consistent with the work of Mostafa (2006), Pierce et al. (1999), and Stern et al. (1993). Our results are consistent with those of

Ogiemwonyi et al. (2023), who demonstrated that environmental concern indirectly influences green purchasing behavior through environmental attitude. Similarly, our results coincide with those of Balaskas et al. (2023), who found that environmentally sensitive consumers show a stronger purchase intention towards green products. The results also support the characterization proposed by Kinneer, Taylor, and Ahmed (1974) of the ecologically concerned consumer.

Our second hypothesis (H2) regarding the positive impact of ecological knowledge on attitudes toward green products was also confirmed, supporting previous findings by Antil (1984), Mostafa (2007), Tanner and Kast (2003), Chan (2001), and Chan and Lau (2000). This conclusion is reinforced by recent work by Ogiemwonyi et al. (2023) highlighting "consciousness of consequences" as a direct determinant of green purchasing behavior. The

distinction made by Polonsky et al. (2012) between general environmental knowledge and specific product knowledge proved valuable, with Barber et al. (2009) finding that specific knowledge has a greater impact than general knowledge.

The positive effect of attitude on the intention to purchase ecological products (H3) aligns with numerous previous studies including Kalafatis et al. (1999), Ajzen (1991), Chan (2001), Paul et al. (2016), Nair and Little (2016), Sparks and Shepherd (1992), and Chen and Deng (2016). These results are consistent with previous studies (Lestari et al., 2020; Ogiemwonyi et al., 2023; Adiputra et al., 2023), which showed that positive attitudes towards green products influence green purchasing intention and behavior. The psychological dimension described by Hartmann and Apaolaza-Ibanez (2012) was evident in our study.

Concerning the moderating role of trust in ecological products (H4), our study demonstrates that this variable strengthens the relationship between attitude and purchase intention, supporting previous findings by Bang et al. (2000), Fotopoulos and Krystallis (2002), and Vermeir and Verbeke (2008). This is consistent with the research of Adiputra et al. (2023) who found that trust in green brands significantly influences the relationship between attitude and purchase intention for natural products. The work of Lee et al. (2011) and Schlosser et al. (2006) on green trust is also consistent with our findings.

These findings present several theoretical and managerial implications. Our study contributes to green marketing literature by empirically validating the relationships between environmental concern, ecological knowledge, attitude, and purchase intention, while highlighting the moderating role of trust. As suggested by Balaskas et al. (2023) and Adiputra et al. (2023), companies should implement marketing strategies for different market segments, while increasing their credibility in order to convert favorable attitudes into actual purchases. However, future research could explore additional moderating variables such as perceived consumer effectiveness or price sensitivity. Studying the role of emotional appeals in green advertising, as reported by Balaskas et al. (2023), could better help understand how to effectively communicate environmental messages to different target consumer segments.

6. CONCLUSION, RECOMMENDATIONS, LIMITATIONS, AND FUTURE RESEARCH DIRECTIONS

The study involved 682 Algerian consumers above the age of 20. It is a detailed examination of the psychological aspects of green consumption. Crucial findings were established through the study that led us to understand what motivates individuals to buy green products, especially in Algeria. The research identified environmental concern as the most influential reason people possess a positive attitude towards green products. In line with other past studies by Kilbourne et al. (2002) and Paul et al. (2016), this finding underscores the importance of being capable of connecting emotionally when influencing green attitudes. To the surprise, environmental awareness was not a key influencer of attitudes, meaning merely presenting information is not enough to change consumer behavior. Our findings are consistent with those of Ogiemwonyi et al. (2023) and Balaskas et al. (2023), who highlight the critical role of emotional connection in green purchasing. They also reinforce Adiputra et al.'s (2023) recommendation to build trust to bridge the "green gap" between attitudes and actions. Communication strategies must now focus on developing campaigns centered on environmental concerns, favoring an emotional rather than purely informative discourse. Companies are encouraged to design environmental education programs that go beyond the simple transmission of knowledge, seeking to emotionally engage consumers. It is becoming crucial to develop ecological products adapted to the local context, which take into account economic constraints while offering accessible, sustainable solutions. The study also confirms a strong relationship between attitude and intention to purchase eco-friendly products, highlighting the importance of working on consumers' perceptions and emotions. In the Algerian context, marked by growing environmental challenges, this research offers a new perspective on potential levers for transforming consumer behavior.

Despite its significant contributions, the research has several methodological limitations. The non-probability sampling by convenience, with an overrepresentation of young graduates, limits the similarity of results. The generic nature of the study, which did not distinguish any specific sector or brand, opens the way to more targeted investigations.

Future research opportunities are promising. It would be relevant to conduct sector-specific studies, comparatively analyze green consumption behaviors in different North African countries and integrate cultural and religious variables. Research could also deepen the analysis by using probability sampling methods, exploring the impact of gender and religion, and studying the relationship between intention and actual behavior.

In conclusion, this research represents a significant contribution to understanding green consumption in Algeria. It demonstrates that the

ecological transition cannot be decreed, but is built through emotional engagement and appropriate communication strategies. The challenge for economic and social actors will be to transform this awareness into real changes in behavior, by proposing sustainable solutions that simultaneously address environmental issues and local socio-economic realities. Green consumption in Algeria is not an imported concept, but a necessity that emerges from the concrete concerns of citizens facing contemporary ecological challenges.

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APPENDIX 1: SUMMARY OF THE MEASUREMENT SCALES OF THE DIFFERENT CONSTRUCTS SCALE

	Items	Source
Ecological concern	<ul style="list-style-type: none"> -Human beings must live in harmony with nature to survive -I am very concerned about the environment -I am willing to reduce my consumption to help protect the environment -Anti-pollution laws should be further strengthened -Plants and animals are much more threatened than human beings. 	(Dunlap et al., 2000 ; Kilbourne and Pickett, 2008 ; Zimmer et al., 1994)
Ecological knowledge	<ul style="list-style-type: none"> -I have less knowledge about recycling than the average person. -I know how to choose products and packaging that reduce the amount of waste that ends up in landfills. -I understand the environmental expressions mentioned on product packaging -I understand the environmental symbols mentioned on product packaging -I am well-informed about environmental issues 	(Mostafa, 2007)
Attitude toward ecological products	<ul style="list-style-type: none"> -I like the idea of buying eco-friendly products -Green buying is a good idea -I encourage the purchase of an ecological product. -My feelings about buying eco-friendly products are positive. -I am interested in the idea of buying eco-friendly products 	(Mostafa, 2007; Taylor & Todd, 1995; Sparks & Shepherd, 1992)
The intention to purchase ecological products.	<ul style="list-style-type: none"> -I will consider buying eco-friendly products because they are less polluting. -I will consider changing brands for ecological reasons. -I plan to switch to an eco-friendly product -I intend to buy environmentally friendly products -I have no intention of buying these environmentally friendly products 	(Mostafa, 2007; Chan & Lau, 2000; Ling-yee, 1997)
Trust in eco-friendly products.	<p style="text-align: center;">You think that...</p> <ul style="list-style-type: none"> - The environmental image of this product is generally reliable. -The environmental functionality of this product is generally reliable. -Overall, the environmental claims of this product are trustworthy. -The environmental performance of this product meets your expectations. 	Chen and Chang 2014