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The impact of consumer perceptions of product quality on green product purchase decisions: A cross-sectional study in Saudi Arabia

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Abstract: This study explores the impact of consumer perceptions of product quality on green product purchasing decisions in Saudi Arabia. With growing environmental concerns, green consumerism has gained importance as customers increasingly shift towards eco-friendly alternatives. However, perceptions that green products are expensive or of lower quality often impede their acceptance. This research examines how quality perceptions, environmental awareness, and consumer preferences influence both purchase and repurchase intentions. A cross-sectional survey of 135 participants (52.6% male, 47.4% female) was conducted through an online questionnaire, and the data were analyzed using SPSS to assess the relationships between product quality perceptions, purchasing behavior, and demographic factors. The findings reveal that positive perceptions of product quality significantly enhance purchase intentions, while environmental considerations and personal preferences also play critical roles in decision-making. This study offers valuable insights for businesses and policymakers, helping them develop strategies to address consumer concerns and promote sustainable consumption, aligning with Saudi Arabia's Vision 2030 goals.

Keywords: *Consumer perception, Green products, Product quality, Purchasing decisions, Saudi Arabia.*

1. Introduction

Environmental concerns are increasingly shaping consumer behavior worldwide, driving a significant shift toward green consumerism. Green consumerism focuses on adopting products and services that minimize environmental impact [1, 2]. The global green product market is experiencing exponential growth, with a total value exceeding USD 44 trillion, while the low-carbon, eco-friendly market alone is estimated at EUR 4.2 trillion [3].

Despite this growth, the widespread adoption of green products faces significant challenges, especially in emerging markets like Saudi Arabia, where cultural and economic factors play a pivotal role in shaping consumer behavior [4]. Saudi Arabia's Vision 2030 offers a strategic framework for transitioning toward sustainable development and diversifying the economy [5]. Although environmental awareness is growing among Saudi consumers, perceptions of high costs and questionable quality remain major barriers to the acceptance of green products [6].

While previous research has extensively examined green consumerism in Western contexts, there is a critical gap in understanding how these dynamics operate in Saudi Arabia. Addressing this gap is essential for promoting sustainable consumption in alignment with the nation's ambitious goals [4].

This study explores the relationship between consumer perceptions of green product quality and their purchasing decisions in Saudi Arabia. By examining the interplay between quality perceptions, environmental concerns, and demographic factors, the research aims to provide actionable insights for businesses and policymakers. Ultimately, this study seeks to contribute to the broader discourse on sustainable consumption by highlighting emerging markets' unique challenges and opportunities.

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1.2. Problem Statement: Emerging Markets' Unique Challenges and Opportunities

Despite growing awareness of environmental issues and global efforts to promote efficient product utilization, the consistent adoption of green products remains limited. This is primarily due to concerns about quality, price, and efficiency. This research aims to address the gap in understanding the role of perceived green product quality in consumer decision-making, particularly in emerging markets like Saudi Arabia. Additionally, the study explores how environmental concerns, preferences for eco-friendly products, and demographic factors influence consumer behavior.

1.3. Research Gaps

Given increasing global environmental challenges, green products have become a sustainable choice for consumers seeking to reduce their environmental impact. However, the widespread adoption of these products continues to face significant challenges, particularly in emerging markets like Saudi Arabia. This study aims to deepen the understanding of how perceptions of quality influence purchase and repurchase decisions in a market transitioning toward sustainability, in alignment with Saudi Arabia's Vision 2030.

This research is unique in exploring the cultural and economic dimensions that shape Saudi consumers' behavior, thereby contributing to the global literature on consumer behavior toward green products.

1.4. Research Gaps and Opportunities

Despite extensive global research on green consumerism, significant gaps remain in understanding emerging markets like Saudi Arabia. Limited studies have explored the interplay between environmental awareness, demographic characteristics, and cultural influences in shaping consumer behavior [6]. Furthermore, the role of marketing strategies—such as educational campaigns and pricing incentives—requires deeper investigation to bridge the gap between awareness and actual purchasing behavior [7].

1.5. Research Objectives

The research objectives are as follows:

1. To investigate how consumer perceptions of green product quality influence purchasing decisions.
2. To examine the relationship between consumers' perceptions of green product quality and purchase intentions.
3. To assess the impact of consumers' perceptions of green product quality on their repurchase intentions.
4. Analyze how environmental concerns affect consumers' perceptions of green product quality.
5. To explore the influence of environmental concerns on consumers' purchase intentions for green products.
6. To evaluate how consumers' preferences for green products influence their perceptions of product quality.
7. To determine the impact of consumers' preferences for green products on their purchase intentions.
8. To assess the influence of demographic factors—such as gender, age, and employment status—on purchasing decisions for green products.

This research aims to examine the influence of consumer perceptions of product quality on the purchase decisions of green products in Saudi Arabia. The introduction has outlined the study's background, research gaps, problem statement, and objectives. The paper will then present an in-depth literature review to contextualize green products and public attitudes and behaviors. This will be followed by a detailed description of the materials and methods used in the study. Finally, the data will be analyzed and contextualized within the existing literature. The paper will conclude by synthesizing the key findings and discussing their implications for future research and practical applications.

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2. Literature Review and Theoretical Framework

2.1. Theory of Planned Behavior (TPB)

According to Ajzen [8] Theory of Planned Behavior (TPB), behavioral intentions are the primary determinants of human behavior. This theory emphasizes three key components: subjective norms, attitudes, and perceived behavioral control. Ajzen [9] explains that attitudes stem from personal beliefs about the outcomes of a specific behavior, which influence the likelihood of performing that behavior. In the context of green consumerism, consumers who believe that purchasing environmentally friendly products positively impacts the environment are more likely to develop favorable attitudes toward such purchases.

The second component, subjective norms, refers to the perceived social pressure influencing intentions. According to Worthington and Ryan [10] when individuals perceive that their peers approve of environmentally friendly behaviors, they may feel compelled to align their attitudes and intentions with these social expectations. This aligns with the findings of Chen and Chang [11] who highlighted the role of social influence in shaping green purchasing decisions.

The third component, perceived behavioral control, relates to the perceived ease or difficulty of performing a behavior, as defined by Zong, et al. [12]. This suggests that consumers who believe they can easily access and purchase green products are more likely to plan and execute such purchases in the future. Studies such as Laheri, et al. [13] have demonstrated that TPB effectively predicts green behaviors, as positive attitudes, perceived social norms, and perceived behavioral control collectively enhance the willingness to purchase sustainable products.

2.2. Green Consumerism

Green consumerism represents a shift toward purchasing products and services that minimize environmental impact. Research by McKinsey & Company [2] indicates that over 60% of global consumers are willing to change their purchasing behaviors for environmental reasons. However, despite this growing awareness, barriers such as high costs, limited availability, and perceived inefficacy hinder widespread adoption [6].

As part of the global green economy, the Saudi market is increasingly interested in sustainable consumption. Nevertheless, it faces unique challenges rooted in cultural norms and economic constraints [4].

2.3. Cultural and Economic Context in Saudi Arabia

The Saudi market offers a unique setting where cultural and economic factors influence consumer behavior. Vision 2030 promotes sustainability, yet misconceptions about the affordability and quality of green products remain prevalent [5]. Income levels, employment status, and awareness of environmental benefits play significant roles in shaping consumer preferences, as highlighted by Mabkhot [14]. Moreover, demographic factors like age and gender further influence purchasing decisions [15].

2.4. Consumer Perceptions of Green Products

Consumer perception refers to an individual's subjective understanding and evaluation of a product or service. Various factors, such as recognition, beliefs, and attitudes toward product quality, shape consumer perceptions of green products. Studies by Pravin [16] indicate that consumers are highly concerned about environmental protection and generally hold positive attitudes toward green products. Favorable perceptions of green products can significantly enhance purchase intentions. However, misconceptions—such as perceived ineffectiveness or higher prices—can limit consumer acceptance. For instance, consumers may hesitate to purchase green products if they do not perform as well as conventional alternatives.

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2.4.1. Hypotheses

H_1: Consumer perceptions of green product quality significantly influence their purchasing decisions.

H_{2a}: Consumers with higher perceptions of green product quality are more likely to have higher purchase intentions.

H_{2b}: Consumers with higher perceptions of green product quality are likelier to have higher repurchase intentions.

2.5. Theoretical Foundations

Ajzen [8] provides a robust framework for understanding consumer behavior in the green market. According to TPB, three key factors—attitudes, subjective norms, and perceived behavioral control—influence consumers' willingness to purchase eco-friendly products. For instance, Laheri, et al. [13] demonstrate that consumers who perceive fewer barriers to purchasing green products are more likely to engage in sustainable consumption.

2.6. Dimensions of Green Product Quality

Examining the various dimensions of green product quality is essential to understand consumer perceptions. Key factors such as reliability, longevity, and environmental benefits are critical in assessing the quality of green products [17]. Research indicates that high-quality green products are often associated with improved environmental performance and health benefits [18]. Customers' values, cultural contexts, and demographic characteristics may also influence which quality dimensions they find most appealing.

2.7. Purchase Intention and Green Products

The motivation to purchase eco-friendly products is vital in promoting sustainability and contributing to a healthier, more environmentally conscious future [19]. Purchase intention refers to the likelihood that a consumer will consider buying a product shortly. It is influenced by a customer's attitudes, perceptions, and purchasing habits. Purchase intention is crucial for understanding consumer behavior, as it reflects the decision-making process influenced by factors such as perceived quality, brand recognition, and environmental concerns [20]. Consumers with positive perceptions of green products are likelier to purchase more. Furthermore, purchase intentions can be significantly affected by price, product availability, and marketing strategies [21].

2.8. The Role of Environmental Concern

Environmental concerns play a significant role in shaping consumer decision-making, particularly in the context of green consumerism. Environmental concerns reflect the extent to which individuals are aware of and value the impact of their purchasing decisions on the environment [22]. According to Ogiemwonyi, et al. [23] consumers with strong environmental concerns are more likely to make environmentally conscious purchasing decisions. As environmental awareness grows, green products have become increasingly appealing [24]. However, a gap often exists between environmental concern and actual purchasing behavior, attributed to perceived barriers such as cost and convenience.

2.8.1. Hypotheses

- *H_{3a}: Consumers with higher environmental concerns are likelier to have higher perceptions of green product quality.*
- *H_{3b}: Consumers with more significant environmental concerns are more likely to have higher purchase intentions for green products.*

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2.9. Repurchase Intention and Brand Loyalty

Repurchase intention refers to the likelihood that a consumer will buy a product again in the future, while brand loyalty reflects the tendency to purchase from the same brand repeatedly. Consumers who are loyal to a brand are more likely to continue purchasing its products [25]. According to Ariffin, et al. [26] repurchase intention is strongly influenced by satisfaction with green products. High quality, performance, and environmental benefits significantly impact customer loyalty and satisfaction. To attract environmentally conscious consumers, businesses must be transparent about their product guarantees and demonstrate a genuine commitment to sustainability [27]. The benefits of maintaining strong customer relationships help bridge the gap between consumers' expectations of future advantages and their actual purchase intentions, which are often shaped by positive past experiences.

2.10. Preferences for Green Products

Perceived product effectiveness, societal norms, and individual values influence consumer preferences for eco-friendly products. According to Mabkhot [14] consumers are more likely to choose environmentally friendly products when they are priced competitively and offer satisfaction comparable to conventional alternatives. Additionally, product certifications and labels, such as "natural" or "carbon-neutral," help build consumer trust and influence purchasing decisions by signaling environmental responsibility [28]. Companies that align their products with these preferences can enhance customer loyalty and encourage long-term purchasing behavior.

2.11. Situational Factors Influencing Green Product Purchases

Situational factors such as price, availability, and marketing strategies significantly influence consumers' decisions when purchasing green products. Price remains critical, as consumers often perceive green products as more expensive. According to Dekhili and Achabou [29] discounts and promotions can increase the appeal of green products. Furthermore, marketing campaigns highlighting the unique benefits of green products can help address perceived barriers and foster positive consumer attitudes.

2.11.1. Hypotheses

- *H_{3a} Consumers with a higher preference for green products are more likely to have higher perceptions of green product quality.*
- *H_{4b} Consumers with a higher preference for green products are more likely to have higher purchase intentions.*

2.12. Challenges in Green Product Adoption

Despite growing interest in green products, consumer adoption faces significant challenges. Research highlights issues such as limited awareness of product availability and misconceptions about their effectiveness [7]. Additionally, the complexity of environmental claims often confuses consumers, leading to skepticism about the authenticity of green products [30]. To address these challenges, businesses must educate consumers about the benefits and effectiveness of green products while maintaining transparency in their marketing practices.

2.13. Demographic Influences on Purchasing Decisions

Demographic factors such as gender, age, and employment status significantly shape consumers' purchasing behavior toward green products. Witek and Kuźniar [15] highlight that understanding the relationship between these demographic variables and consumer preferences can help businesses develop targeted marketing strategies for specific consumer segments.

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2.13.1. Hypothesis

- *H5 Gender, age, and employment status significantly influence purchasing decisions for green products.*

This literature review demonstrates that consumer perceptions of green products are complex and multifaceted. To promote sustainable consumption, businesses must understand the factors that shape these perceptions. Given the increasing global focus on environmental sustainability, green products have the potential to capture a larger market share, provided that companies address consumer misconceptions and improve the quality of their offerings. Future research should develop a conceptual framework that explores the interplay between consumer behavior, cultural factors, and marketing strategies to foster sustainable consumption.

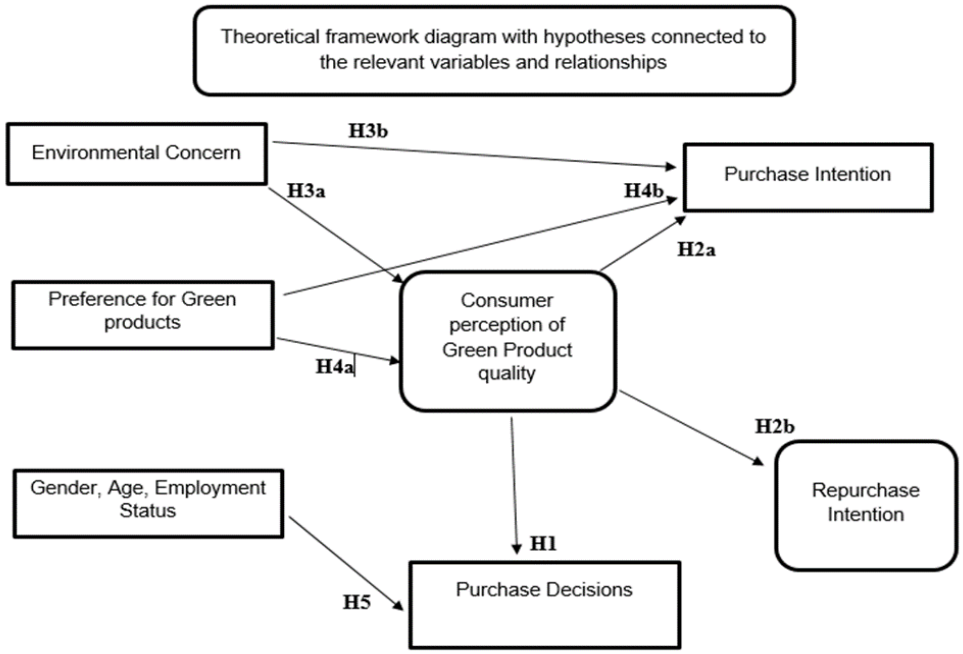

Figure 1.
Theoretical framework.

3. Materials and Methods

3.1. Research Design

This study employs a cross-sectional research design, which facilitates data collection at a single point to examine relationships among variables. This design aligns with the study's quantitative approach, enabling an in-depth exploration of consumer perceptions of green products within the Saudi context [31]. The choice of this design ensures both efficiency and relevance in capturing the dynamics of green consumerism in a transitioning market.

3.2. Data Collection

Data were collected through an online questionnaire from October 2023 to August 2024. The questionnaire was divided into three sections: respondent demographics, perceptions of green product quality, and factors influencing purchasing behavior. The questions were adapted from validated scales used in previous studies [32, 33]. The questionnaire was pre-tested with 15 participants to ensure clarity and reliability, and necessary modifications were made based on their feedback.

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3.3. Sampling Procedure

A systematic random sampling method was used to select 135 participants (52.6% male, 47.4% female) to ensure representation across key demographic segments. The sample size was determined through statistical calculations to achieve a 95% confidence level with a 5% margin of error.

3.4. Data Analysis

Data analysis was conducted using IBM SPSS version 23. Descriptive statistics were used to summarize participant demographics and responses, while correlation and regression analyses were employed to examine the relationships between variables. A significance level of $p < 0.05$ was applied to identify statistically significant relationships.

3.5. Ethical Considerations

The study adhered to ethical research guidelines by obtaining informed consent from all participants. Data anonymization ensured confidentiality, and participants could withdraw from the study at any stage.

4. Results

This chapter presents the findings derived from frequency analysis, descriptive analysis, correlation analysis, and regression analysis conducted on the research data using IBM SPSS version 23.

Table 1.
Frequency analysis of demographic variables (N=135).

Variables		Frequency	Percentage
Gender	Male	71	52.6
	Female	64	47.4
Age	Less than 21 years	12	8.9
	21-30 years	42	31.1
	31-40 years	49	36.3
	41-50 years	27	20.0
	51 and above	5	3.7
Employment status	Employed	76	56.3
	Unemployed	59	43.7
Type of green product purchases	Food	40	29.6
	Healthcare	51	37.8
	Cleaning products	26	19.3
	Electrical	15	11.1
	Others	3	2.2

Table 1 presents the demographic characteristics of the participants (N=135). In terms of gender, male participants accounted for 52.6%, while female participants represented 47.4%. The majority of participants (77.4%) were between the ages of 21 and 40, with smaller proportions being younger (8.9%) or older (23.7%). Regarding employment status, 56.3% of participants were employed, and 43.7% were unemployed. The most commonly purchased green products were healthcare products (37.8%), followed by food (29.6%) and cleaning products (19.3%).

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Table 2.
Descriptive statistics analysis of study variables (N=135).

Variables	Minimum	Maximum	Mean	Std.
Consumer Perceptions Green Products	15	35	25.47	4.090
Purchase Decision	28	87	64.90	8.567
Green product quality	3	15	10.22	2.153
Purchase intention	4	15	11.01	2.118
Environmental concern	6	15	11.13	1.846
Repurchase intention	5	15	10.92	1.981
Preference for green products	3	15	10.68	2.136
Situations that affect green product purchase	3	15	10.94	2.390

Table 2 presents the descriptive statistics for the study variables (N=135). The mean score for consumer perceptions of green products was 25.47 (SD = 4.09), indicating a generally positive perception. Purchase decisions ranged from 28 to 87, with a mean of 64.90 (SD = 8.57). The average rating for green product quality was 10.22 (SD = 2.15), suggesting a moderately positive evaluation. Purchase intention was moderately high, with a mean of 11.01 (SD = 2.12). Environmental concern was slightly higher, averaging 11.13 (SD = 1.85). Repurchase intention and preference for green products were similar, with 10.92 (SD = 1.98) and 10.68 (SD = 2.14), respectively. Finally, participants rated the situational factors affecting green product purchases at a mean of 10.94 (SD = 2.39).

4.1. Hypothesis

- H_1: *Consumer perceptions of green* product quality significantly influence their purchasing decisions.

Table 3.
Effect of consumer perceptions of green product quality on purchasing decisions.

Model	Unstandardized coefficients	Standardized coefficients		t	Sig	95.0% confidence interval for B	
	B	Std. error	Beta			Lower bound	Upper bound
(Constant)	40.021	4.144		9.65	0.000	31.82	40.021
Consumer perceptions of green product quality	0.977	0.161	.466	6.08	0.000	0.659	0.977
R2= .217, F= 36.961, df= 1,133, p=.000							

Note: a. Dependent Variable: Purchasing decisions.

Table 3 presents the regression analysis results examining the relationship between consumer perceptions of green product quality and purchasing decisions. The model was statistically significant, $F(1, 133) = 36.961$, $p < .001$, explaining 21.7% of the variance in purchasing decisions ($R^2 = .217$). Consumer perceptions of green product quality significantly influenced purchasing decisions ($\beta = .466$, $t = 6.080$, $p < .001$). The unstandardized coefficient ($B = .977$) indicates that a one-unit increase in consumer perceptions of green product quality is associated with a .977-unit increase in purchasing decisions. Thus, Hypothesis 1 is supported.

4.2. Hypotheses

- H_{2a}: *Consumers with higher perceptions of green product quality are more likely to have higher purchase intentions.*
- H_{2b}: *Consumers with higher perceptions of green product quality are more likely to have higher repurchase intentions.*

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Table 4.
Pearson correlation coefficient between Consumers' perceptions of green product quality, purchase intentions, and repurchase intentions.

Variables	1	2	3
Environmental concerns	-		
Perceptions of green product quality	0.414**	-	
Purchase intentions	0.322**	0.308**	-

Note: **p<.01.

Table 4 presents the correlations between consumers' perceptions of green product quality, purchase intentions, and repurchase intentions. Consumer perceptions of green product quality were significantly and positively correlated with purchase intentions ($r = .308$, $p < .01$) and repurchase intentions ($r = .461$, $p < .01$). Additionally, purchase intentions and repurchase intentions were significantly and positively correlated ($r = .422$, $p < .01$). These results support Hypotheses 2a and 2b.

4.3. Hypotheses

- H_{3a} *Consumers with higher environmental concerns are more likely to have higher perceptions of green product quality.*
- H_{3b} *Consumers with higher environmental concerns are more likely to have higher purchase intentions for green* products.

Table 5.
Pearson correlation coefficient between Environmental concerns, perceptions of green product quality, and purchase intentions.

Variables	1	2	3
Consumers perceptions of green product quality	-		
Purchase intentions	0.308**	-	
Repurchase intentions	0.461**	0.422**	-

Note: **p<.01.

Table 5 presents the correlations between environmental concerns, perceptions of green product quality, and purchase intentions. Environmental concerns were significantly and positively correlated with perceptions of green product quality ($r = .414$, $p < .01$) and purchase intentions ($r = .322$, $p < .01$). Additionally, perceptions of green product quality and purchase intentions were significantly and positively correlated ($r = .308$, $p < .01$). These findings support Hypotheses 3a and 3b.

4.4. Hypotheses

- H_{4a} *Consumers with a higher preference for green products are more likely to have higher perceptions of green product quality.*
- H_{4b} *Consumers with a higher preference for green products are more likely to have higher purchase intentions.*

Table 6.
Pearson correlation coefficient between Preference for green products, perceptions of green product quality, and purchase intentions.

Variables	1	2	3
Preference for green products	-		
Perceptions of green product quality	0.283**	-	
Purchase intentions	0.289**	0.308**	-

Note: **p<.01.

Table 6 presents the correlations between preference for green products, perceptions of green product quality, and purchase intentions. Preference for green products was significantly and positively correlated with perceptions of green product quality ($r = .283$, $p < .01$) and purchase intentions ($r =$

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.289, p < .01). Additionally, perceptions of green product quality and purchase intentions were significantly and positively correlated (r = .308, p < .01). These results support Hypotheses 4a and 4b.

4.5. Hypothesis

- *H_5 Gender, age, and employment status significantly influence purchasing decisions for green products.*

Table 7.
Effect of Gender, age, and employment status on buying decisions

Model	Unstandardized coefficients	Standardized coefficients		t	Sig.	95.0% confidence interval for B	
	B	Std. error	Beta			Lower bound	Upper bound
(Constant)	67.187	3.787		17.743	0.000	59.696	74.678
Gender	3.203	1.433	0.187	2.235	0.027	0.368	6.038
Age	-0.406	0.729	-0.047	-0.557	0.579	-1.848	1.036
Employment status	-4.093	1.445	-0.238	-2.833	0.005	-6.951	-1.235
R2= .217, F= 36.961, df= 1,133, p=.000							

Note: a. Dependent Variable: Purchasing decisions.

Table 7 presents the regression analysis results examining the relationship between gender, age, employment status, and purchasing decisions. The model was statistically significant, $F(3, 131) = 4.199$, $p = .007$, explaining 8.8% of the variance in purchasing decisions ($R^2 = .088$). Gender and employment status significantly influenced purchasing decisions, while age did not have a significant effect ($p = .579$).

Specifically, gender significantly predicted purchase intentions ($B = 3.203$, $t = 2.235$, $p = .027$). Compared to employed individuals, unemployed individuals were more likely to have lower purchase intentions ($B = -4.093$, $t = -2.833$, $p = .005$).

5. Results and Discussion

The findings of this study provide critical insights into consumer behavior toward green products in Saudi Arabia. Descriptive statistics revealed that perceptions of green product quality were generally positive, with an average score of 25.47 (SD = 4.09). Purchase and repurchase intentions were moderately high, with 11.01 (SD = 2.12) and 10.92 (SD = 1.98), respectively. These results highlight a growing interest in sustainable consumption but also indicate the need for further efforts to address existing barriers.

Regression analysis demonstrated that consumer perceptions of product quality significantly influenced purchasing decisions ($\beta = 0.466$, $p < 0.001$), consistent with previous studies by Ariffin, et al. [26] and González-Viralta, et al. [18]. Additionally, environmental concerns were positively correlated with purchase intentions ($r = 0.322$, $p < 0.01$), emphasizing the role of sustainability awareness in shaping consumer behavior. These findings align with global trends while highlighting the unique cultural and economic context of Saudi Arabia.

5.1. Practical Implications

The results suggest that businesses should prioritize improving the quality of green products and addressing misconceptions about their cost and performance. Furthermore, targeted marketing strategies considering demographic factors such as gender and employment status can enhance consumer engagement. Policymakers can use these insights to design educational campaigns that promote sustainable consumption, supporting the goals of Saudi Vision 2030.

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6. Discussion

This cross-sectional study examined the influence of consumer perceptions of product quality on green product purchasing decisions in Saudi Arabia. The findings provide valuable insights into consumer behavior toward green products and the factors influencing their purchasing decisions.

The study sample comprised 135 participants, with a slight majority being male (52.6%). Most participants (77.4%) were between 21 and 40 years old, reflecting a younger demographic that is typically more engaged in sustainable consumption. Over half of the participants (56.3%) were employed, suggesting that income and employment status may influence access to and willingness to purchase green products. The most commonly purchased green products were food, healthcare, and cleaning, aligning with previous research indicating that consumers prioritize sustainable choices in essential categories [34].

According to Sriwaranun, et al. [34] consumers are more willing to pay a premium for green products if they have recently purchased them, are in good health, value ethics and the environment, and believe green products offer superior quality and health benefits. However, individuals with children are less likely to spend more on green products. The findings also indicate that price remains a significant barrier to consumers' purchasing decisions.

The results indicate generally positive perceptions of green products among participants, with purchase decisions reflecting a strong willingness to adopt sustainable alternatives. Environmental concern was moderately high across the sample, aligning with global trends that show increasing awareness of environmental issues, such as climate change and resource depletion. These concerns were positively correlated with purchase intentions and product quality perceptions, highlighting the importance of environmental values in shaping consumer behavior.

According to Lopes, et al. [22] product perceived quality significantly influences green behavior, especially when consumers have heightened environmental concerns. Additionally, consumers' attention to the price of environmentally friendly products and their expectations for the long-term benefits of sustainable consumption positively influence green purchasing behavior, further enhancing their environmental consciousness.

A key finding of this study is that enhanced perceptions of green product quality were strongly correlated with increased purchase and repurchase intentions. According to Ariffin, et al. [26] the perceived value of green products is closely linked to their quality and repurchase intention. This suggests that consumers are more likely to engage with sustainable products when they meet or exceed their expectations in terms of quality and performance. The perception that green products offer significant value beyond environmental benefits is crucial in fostering ongoing consumer engagement.

The research also found that a preference for green products is closely linked to purchase intentions and product quality assessments. This highlights the idea that consumers loyal to green products are more likely to demonstrate repeat purchase behavior, as supported by the findings of Nekmahmud, et al. [21]. Organizations can leverage this insight by continuously improving product quality and emphasizing environmental benefits to cultivate long-term customer loyalty.

Demographic characteristics, such as gender and employment status, significantly influence purchasing behavior. Male participants exhibited higher purchase intentions than females, contrasting with previous studies suggesting that women are generally more environmentally conscious. This discrepancy may reflect evolving societal dynamics and increased environmental awareness among both genders in Saudi Arabia. Additionally, employed individuals showed higher purchase intentions than unemployed respondents, consistent with the findings of Joshi and Rahman [35] which suggest that financial independence often facilitates green purchasing.

Notably, age did not significantly influence purchasing decisions, indicating that environmental awareness is becoming more widespread across all age groups. This finding aligns with recent trends showing that environmental concerns are no longer limited to younger generations but are increasingly embraced by all demographics [7].

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The findings of this study highlight the significant influence of consumer perceptions on purchasing behavior, particularly regarding product quality, environmental awareness, and the preference for high-quality products. The results suggest that companies should emphasize their offerings' practical benefits and ecological advantages to attract and retain customers. Marketing strategies prioritizing product quality and sustainability can effectively appeal to eco-conscious consumers, enhancing purchase intentions and encouraging repeat purchases. Policymakers can leverage these findings to strengthen environmental campaigns and promote the adoption of sustainable products through public engagement initiatives.

These results contribute to the growing body of research on green consumer behavior, particularly within the Saudi context, and offer practical implications for businesses and governments. Future studies could explore additional variables, such as cultural influences, governmental regulations, and pricing strategies, to further understand the dynamics of green product consumption in Saudi Arabia.

6.1. Managerial Implications

The findings of this study offer practical implications for managers and businesses aiming to promote green products successfully. Companies should prioritize understanding and addressing consumers' perceptions of green products, as favorable evaluations significantly stimulate purchase and consumption intentions. Emphasizing eco-friendly products' profitability and environmental benefits can help attract a broader customer base.

Additionally, marketing strategies should incorporate demographic factors such as gender and employment status to tailor messages that resonate with specific consumer segments. For instance, highlighting the practical benefits and advantages of green products for male consumers could help address the observed gap in purchase intentions.

Furthermore, promoting green products in key sectors like food and healthcare can capitalize on consumers' positive attitudes toward environmentally friendly products. Finally, educating consumers about the importance of sustainable consumption and the benefits of eco-friendly practices is essential. By increasing awareness and knowledge of green products, companies can build trust and strengthen consumer confidence in their sustainable offerings.

7. Conclusion and Recommendations

This study explored the influence of consumer perceptions of product quality on green product purchasing decisions in Saudi Arabia, offering valuable insights into the dynamics of sustainable consumption. The findings demonstrate that positive perceptions of green product quality significantly enhance purchase and repurchase intentions, underscoring the importance of addressing consumer concerns about cost and effectiveness. Additionally, environmental concerns and personal preferences play crucial roles in shaping consumer behavior, aligning with global trends while reflecting the unique cultural and economic context of Saudi Arabia.

7.1. Key Recommendations

7.1.1. For Businesses

- Invest in improving the quality and affordability of green products to enhance consumer trust and engagement.
- Leverage targeted marketing strategies that address demographic differences, such as gender and employment status, to expand the consumer base.

7.1.2. For Policymakers

- Launch educational campaigns to raise awareness about the benefits of green products and sustainable consumption.
- Develop incentives, such as subsidies or tax benefits, to encourage the adoption of green products.

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7.1.3. For Researchers

- Future studies should investigate the role of cultural factors and governmental policies in shaping consumer behavior toward green products.
- Explore longitudinal designs to understand how consumer perceptions and behaviors evolve.

Fostering green consumerism, aligninga with Saudi Vision 2030, requires collaborative efforts from businesses, policymakers, and researchers. By addressing the barriers identified in this study, stakeholders can create a more sustainable market environment, promoting long-term environmental and economic benefits.

Transparency:

The author confirms that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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