ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24NOV1100

The Role of Green Marketing Mix Strategies in Influencing Consumer Purchase Decisions: A Study of Kenyan Consumers of Eco-Friendly Personal Care Products

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Abstract:- This study examined the role of green marketing mix strategies in influencing consumer decisions among Kenyan consumers of eco-friendly personal care products. Utilizing a descriptive research design, the study aimed to determine the influence of green price, green place, green promotion, and green product on consumer purchase decisions. Data was collected through a Google questionnaire distributed to a target audience of environmentally conscious consumers, and the responses were analyzed using SPSS, employing both inferential and descriptive statistics to assess the individual impact of each variable. The findings revealed that all four variables significantly influenced consumer purchase decisions, underscoring the pivotal role of green marketing in shaping consumer behavior. This research was crucial for several stakeholders. Businesses gained insights to design effective green marketing strategies that aligned with consumer preferences, enhanced brand value, and drove sustainable growth. Policymakers leveraged the findings to promote eco-friendly consumption through supportive policies and public awareness campaigns. Academics and researchers will benefit from the study by gaining a deeper understanding of the factors driving sustainable consumer behavior in emerging markets. The study highlighted the importance of integrating sustainability into marketing practices, offering a roadmap for stakeholders to address environmental challenges while meeting the growing demand for eco-friendly products. By focusing on the Kenyan market, the research contributed valuable insights into the intersection of sustainability and marketing within developing economies.

Keywords:- *Green Marketing Mix, Consumer Purchase Decisions, Eco-Friendly Personal Care, Sustainable Consumer Behavior, Environmental Consciousness.*

I. INTRODUCTION

Green marketing, which emphasizes promoting environmentally friendly products and services, has become a significant force in shaping consumer behavior worldwide. The increasing demand for eco-friendly products is driven by rising awareness of environmental issues such as climate change, resource depletion, and pollution. In the context of the personal care industry, green marketing strategies have been particularly impactful, as consumers become more conscious of the environmental and health impacts of their daily product choices (Peñaloza & Vandenbosch, 2020). This growing awareness is evident in Kenya, where an increasing number of consumers are seeking personal care products that are both environmentally friendly and free from harmful chemicals.

Kenya, a rapidly developing country in East Africa, represents a promising market for eco-friendly personal care products. With a young and tech-savvy population, Kenyan consumers are increasingly prioritizing sustainability when making purchasing decisions (Mugendi & Njoroge, 2020). As the market for these products expands, local brands are adopting green marketing strategies to meet the rising demand and appeal to environmentally-conscious consumers (Ochieng, 2021). Additionally, Kenya's growing urbanization, coupled with the government's efforts to promote sustainability, has made it a critical market for green products in Africa.

On a broader scale, the African market is witnessing a shift towards sustainable consumer behavior, with a focus on products that promote environmental and social well-being (Nguyen & Iyer, 2021). Many African consumers are increasingly aligning their purchasing decisions with brands that adopt sustainable practices. This shift mirrors global trends where consumers, particularly in developed markets, are demanding transparency and accountability from companies regarding the environmental impact of their products (Bennett & Kassar, 2022). The rise of the green consumer, both in Africa and globally, has prompted businesses to integrate green marketing strategies into their operations, reshaping marketing tactics across industries.

This study explores the role of green marketing mix strategies in influencing consumer decisions, with a specific focus on Kenyan consumers of eco-friendly personal care products. By analyzing the Kenyan market, this research aims to contribute to a better understanding of the impact of green marketing on consumer behavior, with insights that extend to the broader African and global markets.

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➢ *Objectives and Hypothesis*

The increasing global emphasis on sustainability and environmental consciousness has compelled businesses to adopt green marketing strategies as part of their operations. In this context, the marketing mix plays a critical role in shaping consumer decisions by addressing price sensitivity, accessibility, promotion, and product attributes aligned with sustainable practices. This study focuses on eco-friendly personal care products in Kenya, a market increasingly influenced by consumer demand for sustainable alternatives.

To explore the relationship between green marketing mix strategies and consumer purchase decisions, the study was guided by specific objectives and hypotheses. The objectives sought to investigate how individual components of the green marketing mix (green price, green place, green promotion, and green product) influence consumer behavior. Correspondingly, the hypotheses tested the significance of each component in shaping purchase decisions.

➢ *Objectives*

The study was guided by the following objectives:

- To determine the influence of green price on consumer purchase decisions for eco-friendly personal care products among Kenyan consumers.
- To assess the impact of green place on consumer purchase decisions for eco-friendly personal care products among Kenyan consumers
- To evaluate the role of green promotion in influencing consumer purchase decisions for eco-friendly personal care products among Kenyan consumers
- To analyze the effect of green product on consumer purchase decisions for eco-friendly personal care products among Kenyan consumers.

➢ *Hypotheses*

The study tested the following hypotheses:

- H_1: Green price significantly influence consumer purchase decisions for eco-friendly personal care products.
- H_2: Green place significantly influence consumer purchase decisions for eco-friendly personal care products.
- H_3: Green promotion significantly influence consumer purchase decisions for eco-friendly personal care products.
- H_4: Green product significantly influence consumer purchase decisions for eco-friendly personal care products.

II. RESEARCH DESIGN AND METHODOLOGY

This study employed a descriptive research design to explore the role of green marketing mix strategies in influencing consumer decisions among Kenyan consumers of eco-friendly personal care products. The descriptive design was deemed appropriate as it allowed for a detailed examination of the relationship between the variables of interest (green price, green place, green promotion, and green product) and consumer purchase decisions (Creswell, 2014). Descriptive research is particularly useful in identifying patterns and associations in data without manipulating the variables under study (Bryman & Bell, 2015).

The target population included 175 Kenyan consumers who demonstrated environmental consciousness and were likely to purchase eco-friendly personal care products. Respondents were identified through online platforms and communities promoting sustainable living, and convenience sampling was employed to reach a diverse group of consumers within the target demographic. Convenience sampling is commonly used in descriptive studies where researchers aim to gather data from a readily available group (Sekaran & Bougie, 2016).

Primary data were collected using a standardized questionnaire designed to capture insights on the influence of the green marketing mix on consumer purchase decisions. Hosted on Google Forms, the questionnaire was structured with both closed-ended and Likert-scale questions to ensure comprehensive data collection. The use of closed-ended questions allows for quantitative analysis, while Likert scales capture the intensity of attitudes or opinions, providing a rich dataset for statistical evaluation (Creswell, 2014). The questionnaire was distributed online to enhance accessibility and participation from respondents across Kenya, a strategy that aligns with the increasing reliance on digital tools for data collection (Bryman & Bell, 2015).

The collected data were analyzed using SPSS Version 25. Descriptive statistics such as frequencies, percentages, means, and standard deviations were computed to summarize the data, while inferential statistics, including regression analysis, were conducted to examine the significance and strength of the relationships between the independent variables (green price, green place, green promotion, and green product) and the dependent variable (consumer purchase decisions). Descriptive statistics provide a clear overview of the sample characteristics, and inferential statistics help determine whether the observed relationships are statistically significant (Field, 2013).

The findings were presented through tables, graphs, and charts to provide a clear and visual representation of the results. Data visualization aids in making complex information more understandable and accessible, allowing for better communication of research outcomes (Creswell, 2014). By employing a robust methodology, the study ensured the reliability and validity of the findings, thereby contributing valuable insights into green marketing practices and their influence on sustainable consumer behavior in Kenya. Reliability and validity are fundamental for ensuring that the findings accurately reflect the study's research questions and objectives (Pallant, 2020).

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24NOV1100

III. RESULTS AND DISCUSSIONS

The study analyzed demographic characteristics, conducted descriptive statistics, and employed linear regression to explore relationships between variables. The demographic profile highlighted key respondent attributes, including age, gender, and frequency of use, which provided valuable context for interpreting the findings. Descriptive statistics revealed patterns and variability within the data, offering insights into the central tendencies and dispersion of the key variables. Linear regression analysis identified significant relationships between green price, green place, green product, green promotion and consumer purchase decisions.

- *Gender Distribution of Respondents*

Analyzing the gender distribution of respondents is crucial for identifying patterns in consumer behavior, particularly in the context of eco-friendly personal care products. Gender significantly influences purchasing decisions, as men and women often exhibit differing preferences and priorities when selecting products. These variations shape how consumers perceive and engage with sustainability-focused offerings. Understanding the gender composition of the study participants provides valuable insights into tailoring marketing strategies to address these distinct perspectives, thereby encouraging sustainable consumption practices. To assess the diversity of the sample and its potential impact on the findings, the gender representation of respondents was examined. Table 1 presents a summary of the gender distribution in the study.

Table 1 Gender of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
	Male	75	42.9	42.9	42.9
	Female	95	54.3	54.3	97.1
	Prefer not to say	5	2.9	2.9	100.0
	Total	175	100.0	100.0	

Table 1 illustrates the gender distribution of respondents in the study. Out of the 175 valid respondents, 54.3% (n = 95) were female, 42.9% (n = 75) were male, and 2.9% (n = 5) preferred not to disclose their gender. This distribution suggests that women constituted the majority of the survey participants, aligning with previous research indicating that female consumers are often more inclined towards purchasing eco-friendly products due to their higher environmental awareness and ethical considerations (Ghazali et al., 2020). The male respondents represented a significant portion of the sample, highlighting their participation in the market for eco-friendly personal care products. However, the smaller proportion of respondents who preferred not to disclose their gender underscores the importance of inclusive marketing strategies that respect diverse consumer identities (Ladhari & Tchetgna, 2020). This gender composition is essential in understanding consumer behavior regarding eco-friendly personal care products, as the higher representation of women may reflect their greater involvement in personal care purchasing decisions, as noted in studies on gender and consumer behavior (Ali et al., 2021).

- *Monthly Income of Respondents*

Understanding the monthly income of respondents is essential in analyzing consumer behavior, especially when assessing the purchasing patterns of eco-friendly personal care products. Income levels often correlate with consumers' ability and willingness to purchase sustainable products, as those with higher incomes may be more likely to afford eco-friendly alternatives. Conversely, individuals with lower incomes might prioritize cost over sustainability, which can influence their purchasing decisions. By examining the monthly income distribution of the study participants, valuable insights can be gained into the economic factors that shape attitudes toward green products. This demographic information helps in refining marketing strategies, ensuring that green marketing initiatives are tailored to suit the financial capabilities of the target market. Table 2 presents a breakdown of the respondents' monthly income distribution.

Table 2 Monthly Income of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
	less than 10,000 KES	40	22.9	22.9	22.9
	10,000-30,000 KES	25	14.3	14.3	37.1
	30,001 - 50,000 KES	15	8.6	8.6	45.7
	50,001 - 80,000KES	9	5.1	5.1	50.9
	80.001 - 120,000 KES	7	4.0	4.0	54.9
	Above 120,000 KES	18	10.3	10.3	65.1
	Prefer not to say	61	34.9	34.9	100.0
	Total	175	100.0	100.0	

Table 2 presents the distribution of monthly income among the survey respondents, revealing a notable diversity in earnings. The data indicates that a significant portion of respondents (22.9%) earn less than 10,000 KES per month, suggesting that many individuals in the sample fall into the lower-income bracket. This is further corroborated by the next most common income range of 10,000-30,000 KES, which accounts for 14.3% of respondents. This suggests that

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24NOV1100

a substantial proportion of the sample population earns within the lower to mid-range income levels, potentially indicating socio-economic challenges that may affect their purchasing behavior and decision-making, particularly in regard to eco-friendly products. The 30,001-50,000 KES income group, with 8.6% of respondents, shows a slight decrease in frequency compared to the lower income categories. This could imply that as income increases, the number of individuals decreases, which is consistent with the general income distribution patterns where fewer people earn higher amounts. The higher income categories show even lower proportions, with 5.1% of respondents earning between 50,001-80,000 KES and only 4.0% earning between 80,001-120,000 KES. The low percentages in these categories suggest that higher income earners are less common in the sample population, which could be reflective of the socio-economic profile of the survey's demographic.

Interestingly, 10.3% of respondents fall into the "Above 120,000 KES" category, indicating that a smaller, but significant portion of individuals enjoys relatively higher income levels. This could represent a niche group of respondents with higher purchasing power, which may have implications for their attitudes toward premium-priced eco-friendly products. A noteworthy observation is the high percentage (34.9%) of respondents who selected "Prefer not to say" regarding their monthly income. This category represents the largest group in the survey, which could suggest hesitancy or reluctance to disclose financial information, possibly due to privacy concerns or societal stigma surrounding income disclosure. The substantial proportion of non-disclosures also indicates that the actual income distribution may be more varied than the survey data suggests since a significant proportion did not disclose their which highlights a diverse economic landscape among the respondents. These income patterns may influence consumer behavior, especially in terms of purchasing decisions for eco-friendly products, as income levels are known to play a key role in shaping consumer preferences and affordability for sustainable goods. The findings underscore the importance of considering income levels when designing marketing strategies for green products, as price sensitivity and affordability are crucial factors in shaping purchasing decisions.

- *Frequency of Personal Care Product Purchases*

Understanding the frequency of personal care product purchases provides critical insights into consumer behavior and the potential demand for eco-friendly alternatives. In the context of Kenyan consumers, the purchasing habits related to products such as body lotions, shampoos, and soaps can reveal key trends that influence the effectiveness of green marketing strategies. This section explores how often consumers purchase personal care products, shedding light on their consumption patterns and highlighting the potential for promoting sustainable, eco-friendly options within this category. Table 3 below presents the distribution of respondents based on their frequency of personal care product purchases.

Table 3 Frequency of Personal Care Product Purchases (e.g., Body Lotions, Shampoos, Soaps)

	Frequency	**Percent**
Rarely	23	13.1
Every few months	49	28.0
Monthly	81	46.3
Every 2 weeks	19	10.9
Weekly	3	1.7
Total	175	100.0

Table 3 above summarizes the frequency of personal care product purchases among respondents. The frequency of personal care product purchases among respondents provides valuable insights into consumer habits and their potential relationship with green marketing strategies. The data reveals that 46.3% (n = 81) of respondents purchase personal care products on a monthly basis, representing the largest group. This suggests a consistent demand for personal care items, which may reflect an established purchasing routine that green marketing strategies could effectively target by positioning eco-friendly products as part of regular consumer habits (Niu et al., 2020).

A significant portion, 28.0% (n = 49), reported purchasing personal care products every few months, indicating that while eco-friendly options might not yet be a routine part of their purchase cycle, there is still periodic engagement with personal care items. This group may benefit from marketing efforts emphasizing the long-term value and environmental benefits of switching to sustainable alternatives (Gupta & Agarwal, 2022). Smaller segments of the population purchase personal care products more frequently, with 13.1% (n = 23) purchasing rarely and 10.9% (n = 19) purchasing every 2 weeks. These groups likely have more selective or occasional purchasing patterns, suggesting that green marketing should emphasize the benefits of occasional eco-friendly purchases and align them with values like environmental responsibility or health (Sahni et al., 2021). Lastly, 1.7% (n = 3) of respondents purchase products weekly, which represents a small but consistent consumer base that may prioritize premium or health-conscious products. For this group, marketing strategies could focus on reinforcing the idea of integrating eco-friendly options into their frequent purchasing habits (Sodhi & Singh, 2020). Overall, the frequency of purchases highlights a range of buying behaviors, indicating that green marketing strategies should be tailored to different purchase cycles, targeting consumers from those who buy occasionally to those with more regular purchasing habits.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24NOV1100

IV. DESCRIPTIVE STATISTICS

In order to understand the role of green marketing mix strategies in influencing consumer purchase decisions, it is important to first explore the key characteristics of the target consumer group. The descriptive statistics section provides a comprehensive overview of the study's sample, offering valuable insights into the demographic and behavioral patterns of Kenyan consumers who purchase eco-friendly personal care products. By analyzing factors such as green product awareness, green price sensitivity, green place (availability), and green promotion effectiveness, this section aims to identify key trends and establish a foundation for understanding consumer behavior. This information is vital for developing green marketing strategies that effectively align with the values, preferences, and purchasing habits of the target audience.

- *Descriptive Statistics for Green Product*

Descriptive statistics were computed to summarize the key characteristics of responses related to green products. This analysis provides insights into consumer perceptions, attitudes, and behaviors towards environmentally friendly products. Table 4 presents the mean, standard deviation, and other relevant metrics for the variables assessed, offering a detailed overview of the data trends and variability.

Table 4 Descriptive Statistics for Green Product

	N	Mean	Std. Deviation
I prefer personal care products with natural or organic ingredients	175	3.9600	1.04694
Eco-friendly packaging (e.g., biodegradable or recyclable materials) is important to me when purchasing personal care products.	175	3.7943	1.12084
How important are natural ingredients and eco-friendly packaging in your purchasing decisions?	175	3.7771	1.36943
I trust personal care products with eco-labels or certifications such as “organic” or “cruelty-free.”	175	3.7886	1.06452
Total	175		

The descriptive statistics for green product preferences in the study of Kenyan consumers' purchasing behavior towards eco-friendly personal care products offer valuable insights into consumer attitudes and priorities. Table 4 below summarizes the key findings related to consumers' preferences for eco-friendly personal care products, highlighting the importance of natural ingredients, eco-friendly packaging, and trust in eco-certifications in shaping their purchasing decisions.

The first item in the survey focused on respondents' preference for personal care products with natural or organic ingredients. The mean score of 3.96 indicates a strong preference for such products, with respondents generally agreeing that they prefer items containing natural or organic ingredients. The standard deviation of 1.05 suggests moderate variation in responses, with some consumers placing less emphasis on this factor. This aligns with the increasing trend of consumers choosing products that resonate with their health-conscious and sustainability-driven values (Yadav & Pathak, 2021). The second item addressed the importance of eco-friendly packaging, such as biodegradable or recyclable materials. With a mean of 3.79, the results show that eco-friendly packaging is moderately important to respondents when making purchasing decisions. The standard deviation of 1.12 indicates a wider range of opinions, suggesting that while some consumers prioritize sustainable packaging, others may be more focused on attributes like product quality or price (Hassan & Valenzuela, 2020). This reflects the growing consumer interest in environmentally responsible packaging (Jain & Singh, 2022).

The third item inquired about the overall importance of both natural ingredients and eco-friendly packaging in purchasing decisions. With a mean of 3.78, it suggests that, on average, Kenyan consumers consider these eco-friendly attributes to be important. However, the higher standard deviation of 1.37 highlights greater variability, indicating that while the majority view these factors as important, a subset of respondents may place less emphasis on them, potentially prioritizing cost or brand loyalty instead (Verma & Sood, 2020). Finally, respondents were asked about their trust in eco-labels or certifications, such as "organic" or "cruelty-free." The mean score of 3.79 shows moderate agreement with trusting these certifications. The standard deviation of 1.06 indicates a moderate range of responses, reflecting differing levels of trust among consumers. Some respondents are confident in these certifications, while others may be skeptical or unaware of their significance, underscoring the importance of transparent labeling to foster consumer trust in sustainable products (Baker & Matusitz, 2020). The findings reveal that Kenyan consumers show a strong preference for eco-friendly personal care products, especially those with natural ingredients and sustainable packaging. However, the variability in responses indicates that other factors, such as price, brand, and trust in eco-certifications, also significantly influence purchasing decisions. This diversity in consumer priorities highlights the need for tailored green marketing strategies that address these varying concerns.

- *Descriptive Statistics for Green Price*

The descriptive statistics for green price were analyzed to understand consumer perceptions of the pricing of environmentally friendly products. This analysis helps to determine how price influences consumer attitudes and purchasing decisions. Table 5 presents key metrics such as the mean, standard deviation, and range for green price variables, providing a detailed overview of the data distribution.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24NOV1100

Table 5 Descriptive Statistics for Green Price

	N	Mean	Std. Deviation
I am willing to pay a higher price for personal care products that are environmentally friendly	175	3.6343	1.08964
What price difference do you find acceptable for eco-friendly personal care products compared to regular products?	175	2.5771	1.14648
The price of eco-friendly products affects my decision to purchase them over regular products	175	3.4800	1.08723
Total	175		

The descriptive statistics for the price-related aspects of eco-friendly personal care products provide valuable insights into the influence of price on consumer purchasing behavior in Kenya. Table 5 below outlines the key findings related to how price affects consumer decisions when purchasing green products. The first item in the survey, "I am willing to pay a higher price for personal care products that are environmentally friendly," has a mean score of 3.63. This suggests that, on average, Kenyan consumers are moderately willing to pay a premium for eco-friendly products. The standard deviation of 1.09 indicates moderate variability in responses, reflecting that while many consumers are open to paying higher prices for environmentally friendly products, there is a segment that remains more price-sensitive. This aligns with previous studies showing that although a growing number of consumers are willing to pay more for green products, price remains a critical factor for many (Liu et al., 2020; Peattie, 2021).

The second item examined the acceptable price difference between eco-friendly and regular products, with a mean of 2.58. This suggests that while some consumers are open to paying more for eco-friendly products, they expect only a modest price difference. The standard deviation of 1.15 highlights significant variability in consumer opinions, with some respondents willing to pay a larger premium, while others prefer a minimal or no price difference. This underscores the importance of pricing strategies in finding the right balance between sustainability and affordability (Chen, 2020). The third item, "The price of eco-friendly products affects my decision to purchase them over regular products," reflects the significant role price plays in consumer behavior. With a mean score of 3.48, it indicates that the price of eco-friendly products is an important factor in purchasing decisions. The standard deviation of 1.09 shows variability in how strongly price affects these decisions, with some consumers being more sensitive to price differences than others. This reinforces the idea that price is a key determinant in the adoption of green products, as price sensitivity often serves as a barrier to purchasing eco-friendly alternatives (Gupta & Dube, 2020). Overall, the results suggest that while Kenyan consumers are generally willing to pay a premium for eco-friendly personal care products, price remains a significant factor in their purchasing decisions. The variability in responses points to the need for businesses to carefully consider pricing strategies when marketing green products to ensure they are both attractive to eco-conscious consumers and affordable.

- *Descriptive Statistics for Green Place*

The descriptive statistics for green place were analyzed to explore consumer perceptions of the availability and accessibility of environmentally friendly products. Understanding these factors is crucial for identifying how location and distribution channels influence consumer behavior. Table 6 presents key measures, including the mean, standard deviation, and range, offering insights into the data trends and variability.

Table 6 Descriptive Statistics for Green Place

	N	Mean	Std. Deviation
I find it easy to access eco-friendly personal care products in stores or online.	175	3.2743	.97919
I would be more likely to purchase eco-friendly personal care products if they were available at more convenient locations.	175	4.0857	.96405
How often do you buy eco-friendly personal care products from each of the following locations? supermarkets, specialty stores, online, etc	175	3.6114	1.19764
Total	175		

The analysis of consumer perceptions regarding eco-friendly personal care products reveals that factors such as accessibility, convenience, and frequency of purchase play crucial roles in influencing consumer behavior. Table 6 below provides insights into how these factors shape purchase decisions among Kenyan consumers. The first item examined the ease of access to eco-friendly products, with a mean score of 3.27. This suggests that many consumers still face challenges in finding these products, which may be due to factors such as geographical location or limited product availability in certain areas. The standard deviation of 1.22 indicates some variability in responses, with some consumers reporting greater ease of access than others, while others may find it difficult to locate eco-friendly products in their usual shopping environments. This finding is consistent with previous studies that highlight the accessibility issues consumers face when trying to find green products (Peñaloza & Vandenbosch, 2020).

Convenience emerged as a more prominent factor, with a mean score of 4.09. This indicates that consumers are more likely to purchase eco-friendly products if they are available in convenient locations. The low standard deviation of 0.90 suggests a relatively uniform agreement among respondents

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24NOV1100

regarding the importance of convenience, reinforcing the idea that accessibility in terms of proximity and store placement significantly influences consumer purchasing decisions. This finding aligns with research that underscores the importance of convenience in shaping sustainable consumer behavior (Huang & Benyoucef, 2020).

The frequency of purchase from different retail channels, such as supermarkets, specialty stores, and online platforms, received a moderate score of 3.61. This reflects a variation in consumer behavior, with some consumers purchasing eco-friendly products more frequently than others. The standard deviation of 1.14 indicates that there is diversity in how often consumers buy these products from different retail locations, suggesting that offering eco-friendly products across a variety of retail formats may enhance consumer engagement and purchase frequency. Zhu et al. (2022) emphasized the importance of providing green products through multiple retail channels to cater to the diverse preferences and behaviors of consumers. Overall, the findings suggest that improving the accessibility and availability of eco-friendly personal care products, alongside making them more convenient to purchase, could drive greater adoption of sustainable products among Kenyan consumers.

- *Descriptive Statistics for Green Promotion*

Descriptive statistics for green promotion were analyzed to examine consumer perceptions of marketing and promotional efforts for environmentally friendly products. This analysis provides insights into how promotional strategies impact awareness and attitudes towards green products. Table 7 presents key metrics such as the mean, standard deviation, and range, offering a detailed overview of the data distribution and trends**.**

Table 7 Descriptive Statistics for Green Promotion

	N	Mean	Std. Deviation
I am influenced by advertisements that emphasize the environmental benefits of personal care products.	175	3.7714	.96149
Social media promotions about eco-friendly personal care products influence my purchasing decisions.	175	3.3829	1.09163
How has the promotional content your decision to buy eco-friendly personal care products?	175	2.7371	1.47373
Overall, the green marketing strategies used for eco-friendly personal care products (natural ingredients, eco-packaging, accessible pricing, targeted promotion) significantly influence my purchasing behavior.	175	3.6914	.90762
Total	175		

The analysis of consumer responses regarding green promotion strategies reveals varying levels of influence from promotional efforts on the purchasing behavior of Kenyan consumers with respect to eco-friendly personal care products. Table 7 below presents the descriptive statistics for the items related to promotional activities and their impact on consumer decisions.

The first item, "I am influenced by advertisements that emphasize the environmental benefits of personal care products," has a mean score of 3.77, suggesting that advertisements highlighting the environmental benefits of products have a moderate to strong influence on purchasing decisions. The standard deviation of 0.96 indicates that most respondents are positively influenced by such advertisements, but there is some variability in how strongly these promotional messages affect different consumers. This finding aligns with previous research that indicates environmentally focused advertising can significantly impact consumer preferences, especially among environmentally conscious buyers (Gupta & Dube, 2020; Kumar & Jain, 2021). The second item, "Social media promotions about eco-friendly personal care products influence my purchasing decisions," has a mean score of 3.38, indicating that social media promotions have a moderate influence on purchasing behavior. The standard deviation of 1.09 suggests greater variability in consumer responses, implying that while some consumers are highly influenced by digital promotions, others may be less affected. This reflects broader trends identified in research that emphasize the growing role of social media and digital platforms in shaping consumer behavior, particularly among younger, tech-savvy individuals (Gambetti & Vignali, 2021; Sharma & Srivastava, 2022).

The third item, "How has the promotional content in questions 18 and 19 impacted your decision to buy eco-friendly personal care products?" has a mean score of 2.74, which suggests that promotional content, while influential, has a more moderate effect on purchasing decisions. The standard deviation of 1.47 indicates a higher level of variability, implying that some consumers are significantly influenced by promotional content, while others may prioritize other factors such as price or product quality. This finding supports the notion that while green marketing strategies are important, they must be complemented by other key factors to maximize consumer appeal (Peattie, 2021).

Finally, the item "Overall, the green marketing strategies used for eco-friendly personal care products (natural ingredients, eco-packaging, accessible pricing, targeted promotion) significantly influence my purchasing behavior" received a mean score of 3.69. This indicates that, overall, consumers acknowledge the moderate to strong influence of a comprehensive green marketing strategy on their purchasing decisions. The relatively low standard deviation of 0.91 suggests consistency in responses, with consumers broadly recognizing the importance of a holistic marketing approach that combines various green attributes such as product ingredients, packaging, pricing, and promotion. This aligns with research that emphasizes the

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24NOV1100

significant impact of an integrated green marketing mix on consumer behavior (Liu et al., 2020; Kumar & Jain, 2021). The results suggest that promotional efforts, especially advertisements and social media promotions, have a moderate to strong influence on Kenyan consumers' decisions to purchase eco-friendly personal care products. However, the level of influence varies by individual, and the overall effectiveness of green marketing strategies is enhanced when they are comprehensive, incorporating product attributes, pricing, promotion, and distribution.

- *Descriptive Statistics for Consumer Purchase Behaviour*

Descriptive statistics for consumer purchase behavior were analyzed to understand the factors influencing consumer decisions when purchasing products, particularly in relation to green or environmentally friendly options. This analysis highlights patterns in consumer actions and preferences. Table 8 presents the mean, standard deviation, and other relevant statistical measures, offering a detailed overview of the distribution and variability in consumer purchase behavior.

Table 8 Descriptive Statistics for Consumer Purchase Behaviour

	N	Mean	Std. Deviation
How likely are you to purchase eco-friendly personal care products again in the future?	175	2.4971	1.42987
I am loyal to eco-friendly personal care brands that align with my values.	175	4.0000	.92227
I am willing to recommend eco-friendly personal care products to friends or family.	175	4.1486	.75100
The frequency with which I buy eco-friendly personal care products has increased over the last year.	175	3.2057	1.11570
How motivated are you when purchasing eco-friendly personal care products?	175	2.8800	1.69258
I would prefer to purchase eco-friendly personal care products over regular products if they were more accessible and available in my local area.	175	4.2857	.87663
Total	175		

The analysis of consumer responses regarding green promotion strategies reveals varying levels of influence from promotional efforts on the purchasing behavior of Kenyan consumers with respect to eco-friendly personal care products. Table 7 below presents the descriptive statistics for the items related to promotional activities and their impact on consumer decisions. The first item, "I am influenced by advertisements that emphasize the environmental benefits of personal care products," has a mean score of 3.77, suggesting that advertisements highlighting the environmental benefits of products have a moderate to strong influence on purchasing decisions. The standard deviation of 0.96 indicates that most respondents are positively influenced by such advertisements, but there is some variability in how strongly these promotional messages affect different consumers. This finding aligns with previous research that indicates environmentally focused advertising can significantly impact consumer preferences, especially among environmentally conscious buyers (Gupta & Dube, 2020; Kumar & Jain, 2021).

The second item, "Social media promotions about eco-friendly personal care products influence my purchasing decisions," has a mean score of 3.38, indicating that social media promotions have a moderate influence on purchasing behavior. The standard deviation of 1.09 suggests greater variability in consumer responses, implying that while some consumers are highly influenced by digital promotions, others may be less affected. This reflects broader trends identified in research that emphasize the growing role of social media and digital platforms in shaping consumer behavior, particularly among younger, tech-savvy individuals (Gambetti & Vignali, 2021; Sharma & Srivastava, 2022). The third item, "How has the promotional content in questions 18 and 19 impacted your decision to buy eco-friendly personal care products?" has a mean score of 2.74, which suggests that promotional content, while influential, has a more moderate effect on purchasing decisions. The standard deviation of 1.47 indicates a higher level of variability, implying that some consumers are significantly influenced by promotional content, while others may prioritize other factors such as price or product quality. This finding supports the notion that while green marketing strategies are important, they must be complemented by other key factors to maximize consumer appeal (Peattie, 2021).

Finally, the item "Overall, the green marketing strategies used for eco-friendly personal care products (natural ingredients, eco-packaging, accessible pricing, targeted promotion) significantly influence my purchasing behavior" received a mean score of 3.69. This indicates that, overall, consumers acknowledge the moderate to strong influence of a comprehensive green marketing strategy on their purchasing decisions. The relatively low standard deviation of 0.91 suggests consistency in responses, with consumers broadly recognizing the importance of a holistic marketing approach that combines various green attributes such as product ingredients, packaging, pricing, and promotion. This aligns with research that emphasizes the significant impact of an integrated green marketing mix on consumer behavior (Liu et al., 2020; Kumar & Jain, 2021). The results suggest that promotional efforts, especially advertisements and social media promotions, have a moderate to strong influence on Kenyan consumers' decisions to purchase eco-friendly personal care products. However, the level of influence varies by individual, and the overall effectiveness of green marketing strategies is enhanced when they are comprehensive, incorporating product attributes, pricing, promotion, and distribution.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24NOV1100

V. REGRESSION ANALYSIS

Regression analysis is a powerful statistical tool used to examine the relationship between dependent and independent variables. In the context of this study, regression analysis will be employed to assess the influence of various green marketing mix strategies on consumer purchase decisions for eco-friendly personal care products in Kenya. Specifically, this section will explore how the components of the green marketing mix—such as product, price, promotion, and place—affect consumers' attitudes and behaviors toward purchasing eco-friendly products. By utilizing regression models, the study aims to quantify the impact of these marketing strategies and identify key factors that drive consumer preferences in the growing market for sustainable and eco-friendly personal care products.

- *Influence of green product on consumer purchase decisions for eco-friendly personal care products among Kenyan consumers.*

The regression analysis for green products and consumer purchase behavior provides an overview of the relationship between green product attributes and consumer purchasing decisions. This analysis identifies the strength and significance of the green product as a predictor of consumer behavior. Table 9 presents key statistical measures, including R-squared, coefficients, and significance values, to assess the fit and explanatory power of the model in understanding consumer purchasing decisions based on eco-friendly product characteristics.

Table 9 Regression Analysis for Green Product and Consumer Purchase Behavior

Model Summary									
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**Change Statistics**				
					R Square Change	**F Change**	**df1**	**df2**	**Sig. F Change**
1	.254[a]	.064	.059	.69303	.064	11.899	1	173	.001

ANOVA[a]						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	5.715	1	5.715	11.899	.001[b]
	Residual	83.089	173	.480		
	Total	88.804	174			

Coefficients[a]						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	2.573	.275		9.365	.000
	Green Product	.243	.070	.254	3.449	.001
Dependent Variable: Consumer Purchase Behaviour Predictors: (Constant), Green Product						

The regression analysis evaluates the influence of "Green Product" on "Consumer Purchase Behavior." The Model Summary table indicates that the correlation coefficient (R) is 0.254, signifying a weak but positive relationship between Green Product and Consumer Purchase Behavior. The R Square value of 0.064 shows that the Green Product variable explains 6.4% of the variation in Consumer Purchase Behavior, with an Adjusted R Square value of 0.059, confirming a slight adjustment for the number of predictors included. The standard error of the estimate is 0.69303, reflecting the average deviation of observed values from the predicted values.The ANOVA test reveals an F-statistic of 11.899, with a significance level of 0.001 ($p < 0.05$), indicating that the regression model significantly predicts Consumer Purchase Behavior. This finding suggests that the Green Product variable meaningfully contributes to explaining changes in the dependent variable.

The coefficients table provides further insights. The unstandardized coefficient (B) for Green Product is 0.243, meaning a one-unit increase in the Green Product variable results in a 0.243-unit increase in Consumer Purchase Behavior, assuming all other factors remain constant. The standardized coefficient (Beta) is 0.254, reinforcing the positive impact of Green Product on Consumer Purchase Behavior. The t-statistic of 3.449, with a significance value of 0.001, confirms the statistical significance of this relationship. The constant (intercept) is 2.573, representing the baseline level of Consumer Purchase Behavior when Green Product is zero.

The analysis demonstrates that Green Product significantly predicts Consumer Purchase Behavior, though its explanatory power is limited ($R^2 = 0.064$). This suggests that while Green Product influences consumer purchasing decisions, additional variables may also play substantial roles. The findings of this regression analysis align with existing literature on the influence of green products on consumer purchasing behavior. Several studies have highlighted the growing importance of green products in shaping consumer decisions, particularly as environmental awareness increases. For instance, Lin and Huang (2012) found that consumers are more likely to purchase products that are marketed as environmentally friendly, as they

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24NOV1100

associate these products with personal values of sustainability and corporate social responsibility. Their study emphasized that the perceived benefits of green products can positively influence purchase intentions, albeit the effect size might be modest, as seen in the current study. Similarly, a study by Mostafa (2007) revealed that consumers with higher environmental consciousness tend to exhibit positive attitudes and behaviors toward green products. This supports the observed significant yet limited predictive power of the Green Product variable ($R^2 = 0.064$), as consumer behavior is often multifaceted and influenced by various other factors such as price sensitivity, product quality, and social influence. Moreover, Paul, Modi, and Patel (2016) demonstrated that the intention to purchase green products is significantly impacted by eco-labels and environmental concerns. These findings resonate with the current study's results, where the t-value and significant p-value ($p = 0.001$) confirm the impact of green products on consumer purchase behavior, albeit with room for additional predictors to explain the remaining variance.

- *Influence of green price on consumer purchase decisions for eco-friendly personal care products among Kenyan consumers.*

The regression analysis for green price and consumer purchase behavior evaluates the relationship between the price of eco-friendly products and consumer purchasing decisions. This analysis helps determine how changes in green product pricing impact consumer behavior. Table 10 presents key statistical metrics, such as R-squared, coefficients, and significance values, to assess the strength and significance of green price as a predictor of consumer purchase behavior.

Table 10 Regression Analysis for Green Price and Consumer Purchase Behavior

Model Summary[b]

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	.326[a]	.106	.101	.67740	.106	20.526	1	173	.000	1.994

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.419	1	9.419	20.526	.000[b]
	Residual	79.385	173	.459		
	Total	88.804	174			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.494	.228		10.916	.000
	Green Price	.312	.069	.326	4.531	.000

a. Dependent Variable: Consumer Purchase Behaviour
b. Predictors: (Constant), Green Price

The results presented here are derived from Table 10, which provides the coefficients for green price and its influence on consumer purchase behavior. The Model Summary indicates that the R value of 0.326 reflects a moderate correlation between eco-friendly pricing strategies (green price) and consumer purchase behavior. This suggests that pricing strategies targeted at environmentally conscious consumers have a moderate impact on their purchasing decisions for personal care products. While the R Square value of 0.106 indicates that only 10.6% of the variance in consumer purchase behavior can be explained by green price, this still highlights the role that pricing strategies, such as competitive and accessible prices for eco-friendly products, play in shaping consumer decisions. However, the majority of the variance in consumer behavior is influenced by other factors not captured in this model (Gürhan-Canli & Bagozzi, 2022).

The Adjusted R Square value of 0.101 further confirms that the model is not over fitted. The small difference between R Square and Adjusted R Square shows that the relationship between green price and consumer purchase behavior remains moderate. The F Change statistic of 20.526 with a significance value (Sig. F Change) of 0.000 indicates the statistical significance of the model. This suggests that green price as a predictor is meaningfully contributing to explaining variations in consumer purchasing decisions. The low p-value further assures that the effect of green price is unlikely to be due to random chance (Chen, 2021). Additionally, the Durbin-Watson statistic of 1.994, which is close to the ideal value of 2, suggests that there is no significant autocorrelation in the residuals, ensuring that the errors in the regression model are independent, which is essential for reliable analysis (Tabachnick & Fidell, 2020).

In the ANOVA test, the Sum of Squares for Regression is 9.419, showing the variation in consumer purchase behavior explained by green price. This suggests that green price does contribute to explaining consumer decisions, albeit modestly. The Residual Sum of Squares of 79.385 reflects the variation in purchase behavior that is unexplained by the model, highlighting the existence of other influential factors not accounted for by the green price predictor. The Total Sum of Squares is 88.804, representing the total variation in the dependent variable, combining both explained and unexplained variations. The F-statistic of 20.526, derived from dividing the Mean Square for Regression (9.419) by the degrees of freedom (1), measures the ratio of explained to unexplained variance. The high F-statistic suggests a strong relationship between the predictor (green price) and the dependent variable (consumer purchase behavior). The p-value associated with the F-statistic is 0.000, confirming the

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24NOV1100

statistical significance of the model and reinforcing that green price significantly influences consumer purchase behavior (Tabachnick & Fidell, 2020).

The results also show that the unstandardized coefficient for green price is 0.312, which indicates that for each unit increase in the perception of green price (i.e., the environmental price consideration), consumer purchase behavior is expected to increase by 0.312 units. This suggests a positive relationship between eco-friendly pricing strategies and consumers' willingness to purchase eco-friendly products. The standardized coefficient (Beta) for green price is 0.326, which shows a moderate effect size of green price on consumer purchase behavior relative to other predictors in the model. A higher Beta value signals a stronger impact on the dependent variable, emphasizing the importance of green price in consumer decision-making. The t-value for green price is 4.531, and with a p-value of 0.000, which is below the standard significance level of 0.05, we can conclude that the effect of green price on consumer purchase behavior is statistically significant and not due to random chance (Field, 2018). The constant of 2.494 represents the baseline level of consumer purchase behavior when the green price is zero, providing a reference point for interpreting the impact of the predictor variable.

The results demonstrate that green price is a significant predictor of consumer purchase behavior. As the perceived price of eco-friendly products becomes more favorable or reasonable, consumers are more likely to make a purchase. Although the model suggests that green price has a moderate influence, it is important to recognize that other factors, beyond pricing strategies, also play a crucial role in shaping consumer purchasing decisions. Therefore, a multifaceted approach that combines green pricing with other green marketing strategies is essential for effectively influencing consumer decisions in the eco-friendly personal care market. These findings align with previous research, which highlights that competitive pricing for environmentally friendly products is a key factor in influencing consumer choices (Jaiswal & Kant, 2020).

- *To assess the impact of green place on consumer purchase decisions for eco-friendly personal care products among Kenyan consumers*

This table presents the results of the regression analysis examining the relationship between green place (distribution channels for environmentally friendly products) and consumer purchase behavior. The analysis seeks to determine the extent to which the availability and accessibility of green products influence consumer decisions. The model summary provides key statistics, including R-squared and F-statistics, to assess the strength and significance of this relationship. Table 11 outlines the findings from this regression analysis.

Table 11 Regression Analysis for Green Place and Consumer Purchase Behavior

Model Summary[b]

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	.505[a]	.255	.251	.61838	.255	59.235	1	173	.000	1.930

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.651	1	22.651	59.235	.000[b]
	Residual	66.153	173	.382		
	Total	88.804	174			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.696	.239		7.083	.000
	Green Place	.494	.064	.505	7.696	.000

a. Dependent Variable: Consumer Purchase Behaviour
b. Predictors: (Constant), Green Place

The results from Table 11 provide an in-depth analysis of the relationship between the independent variable, green place, and the dependent variable, consumer purchase behavior. The Model Summary table reveals a moderate positive correlation between green place and consumer purchase behavior, with an R-value of 0.505. This indicates that green place has a meaningful relationship with consumer purchase behavior, although other factors may also influence purchase decisions. The R Square value of 0.255 suggests that approximately 25.5% of the variation in consumer purchase behavior can be explained by green place. While this indicates some explanatory power, it also points to the possibility that additional variables may play a role in shaping consumer decisions. The Adjusted R Square value of 0.251 supports this view, offering a similar explanation of the model's power when adjusting for the number of predictors involved.

The standard error of the estimate is 0.61838, reflecting the average distance that the observed values fall from the regression line. While a lower value would indicate a better fit, this value is still reasonable given the inherent variability of consumer behavior. Moreover, the F Change value of 59.235, accompanied by a p-value of 0.000, suggests that the regression model is statistically significant, indicating that the inclusion of green place as a predictor significantly improves the prediction of consumer purchase behavior. This strong statistical significance ($p < 0.05$) confirms that the

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24NOV1100

relationship between green place and consumer purchase behavior is highly unlikely to be due to random chance, further emphasizing the role of green place in the consumer decision-making process. The Durbin-Watson statistic of 1.930 suggests that there is no significant autocorrelation of residuals, indicating that the errors in the model are not correlated over time and supporting the reliability of the regression analysis.

Moving to the ANOVA test, the overall significance of the regression model is tested. The Regression Sum of Squares is 22.651, which represents the variation in consumer purchase behavior explained by the predictor variable, green place. The Residual Sum of Squares, at 66.153, represents the unexplained variation in consumer purchase behavior. The Total Sum of Squares, totaling 88.804, indicates the total variation in the dependent variable. The Mean Square for regression is 22.651, and for residuals, it is 0.382. The F-value of 59.235 and the associated Sig. value of 0.000 strongly support the statistical significance of the model. This confirms that green place is a key determinant in explaining consumer purchase behavior. The p-value of 0.000 further supports this, suggesting that the observed relationship is highly significant and unlikely to be due to chance, underlining the importance of the eco-friendly environment where products are sold in influencing consumer purchasing decisions. The statistical significance shown in the ANOVA table reinforces the relevance of green marketing strategies, particularly those that emphasize eco-friendly places as key marketing tools.

Finally, the Coefficients presents the regression equation for predicting consumer purchase behavior based on the green place variable. The unstandardized coefficient (B) for green place is 0.494, indicating that for each unit increase in the environmental attributes or eco-friendly setting of the location, consumer purchase behavior increases by 0.494 units. This suggests a positive relationship between green place and consumer purchase behavior, meaning that a greener or more eco-friendly environment encourages consumers to make more purchasing decisions. The standardized coefficient (Beta) of 0.505 reflects the moderate to strong positive influence of green place on consumer purchase behavior, providing a comparison of the relative importance of this predictor against others in the model. The t-value for green place is 7.696, with a Sig. value of 0.000, indicating a statistically significant result at the 0.001 level ($p < 0.05$). This reinforces that the relationship between green place and consumer purchase behavior is highly reliable and highly unlikely to have occurred by chance.

The results from the regression, ANOVA, and coefficients analysis consistently indicate that green place is a significant and influential predictor of consumer purchase behavior. Consumers are more likely to make purchasing decisions when the products are marketed or sold in an eco-friendly environment, underscoring the importance of environmental factors in shaping consumer choices. This finding supports the notion that green place the physical environment or location where eco-friendly products are sold plays a crucial role in the decision-making process for eco-conscious consumers (Mansouri & Mola, 2020).

- *To evaluate the role of green promotion in influencing consumer purchase decisions for eco-friendly personal care products among Kenyan consumers*

The regression analysis for green promotion and consumer purchase behavior examines the relationship between promotional activities for eco-friendly products and consumer purchasing decisions. This analysis helps determine how various promotional strategies impact consumer behavior towards green products. Table 14 presents key statistical metrics, such as R-squared, coefficients, and significance values, to evaluate the strength and significance of green promotion as a predictor of consumer purchase behavior.

Table 12 Regression Analysis for Green Promotion and Consumer Purchase Behavior

Model Summary[b]

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	.371[a]	.138	.133	.66531	.138	27.626	1	173	.000	1.992

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.228	1	12.228	27.626	.000[b]
	Residual	76.576	173	.443		
	Total	88.804	174			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.298	.235		9.794	.000
	Green Promotion	.355	.067	.371	5.256	.000

a. Dependent Variable: Consumer Purchase Behaviour
b. Predictors: (Constant), Green Promotion

Table 12 presents a detailed analysis of the relationship between green promotion and consumer purchase behavior. The Model Summary reveals that the R value is 0.371, indicating a moderate positive correlation between green promotion and consumer purchase behavior. This suggests that as efforts to promote eco-friendly attributes of products increase, there is a moderate increase in consumer willingness to purchase such products. The R Square value of 0.138 shows that approximately 13.8% of the variation in consumer purchase behavior can be explained by green promotion, which, while modest, still suggests that green promotion has a meaningful influence on consumer decisions. The Adjusted

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24NOV1100

R Square value of 0.133 reflects the model's robustness, accounting for the number of predictors and showing consistent explanatory power. Furthermore, the F Change value of 27.626 with a p-value of 0.000 indicates that the regression model is statistically significant. This strong result suggests that the inclusion of green promotion as a predictor significantly improves the ability to explain consumer purchase behavior, with the likelihood of the observed relationship being due to chance being extremely low. The Durbin-Watson statistic of 1.992, which falls within the acceptable range of 1.5 to 2.5, indicates that there is no significant autocorrelation of the residuals, supporting the validity of the model. These results show that green promotion plays a significant role in influencing consumer purchase behavior. Companies that strategically highlight the environmental benefits of their products are likely to see a positive impact on consumer engagement and sales. This aligns with the notion that promotional strategies focusing on eco-friendly aspects can strengthen consumer perceptions and drive more sustainable purchasing behaviors (Nguyen et al., 2020).

The ANOVA test further supports these findings by examining the overall significance of the regression model. The Regression Sum of Squares of 12.228 represents the variation in consumer purchase behavior explained by green promotion, while the Residual Sum of Squares of 76.576 accounts for the unexplained variation. The Total Sum of Squares, totaling 88.804, represents the overall variation in the dependent variable. The F-statistic of 27.626 with a corresponding p-value of 0.000 confirms the model's statistical significance, indicating that the relationship between green promotion and consumer purchase behavior is unlikely to be due to random chance. This reaffirms the crucial role that green promotion plays in driving consumer behavior toward eco-friendly purchases, emphasizing the importance of incorporating green marketing strategies into promotional efforts. The Coefficients provides a detailed look at the regression equation, which allows us to predict consumer purchase behavior based on green promotion efforts. The unstandardized coefficient for green promotion is 0.355, indicating that for every unit increase in green promotion, consumer purchase behavior is expected to increase by 0.355 units. The standardized coefficient (Beta) of 0.371 further emphasizes the positive relationship between green promotion and consumer purchase behavior. The t-value of 5.256 and the p-value of 0.000 confirm that the effect of green promotion is statistically significant, providing strong evidence that green promotion directly influences consumer purchase decisions.

These findings are consistent with existing research, which underscores the power of green marketing in driving sustainable purchasing decisions. Previous studies have demonstrated that promotional efforts emphasizing environmental benefits whether through advertising, social media, or in-store initiatives can effectively encourage consumers to adopt eco-friendly purchasing behaviors (Luchs et al., 2010; Rahbar & Wahid, 2011). The results from the regression analysis, ANOVA, and coefficients table collectively support the significant impact of green promotion on consumer purchase behavior. Companies that prioritize eco-friendly attributes in their promotional strategies are likely to foster stronger consumer engagement and more sustainable purchasing behaviors, reinforcing the importance of green marketing in shaping consumer decisions.

VI. CONCLUSION

This study reveals that green marketing mix elements; price, place, and promotion each contribute significantly to consumer purchasing behavior, with varying degrees of influence. Green price strategies have a moderate impact, with competitive pricing playing a crucial role in driving purchases. Green place, which involves the environment in which eco-friendly products are sold, also shows a strong relationship with consumer decisions. Finally, green promotion has a positive but moderate influence on consumer choices, emphasizing the role of communication in reinforcing the environmental benefits of products.

For businesses and marketers targeting eco-conscious consumers in Kenya, it is essential to adopt a multifaceted approach that combines competitive pricing, eco-friendly distribution channels, and effective promotional campaigns to influence consumer purchasing decisions. Moreover, the findings underscore the importance of not relying on a single green marketing strategy but rather integrating all aspects of the green marketing mix to create a more compelling and effective appeal to consumers interested in sustainable personal care products.

RECOMMENDATIONS AND AREAS OF FUTURE RESEARCH

Companies should adopt a comprehensive green marketing strategy that integrates all four elements of the green marketing mix. This includes designing products with sustainable features, offering competitive and transparent pricing, utilizing environmentally friendly distribution channels, and implementing impactful green promotional campaigns. Marketers should focus on educating consumers about the environmental benefits of their products and leverage digital platforms to enhance engagement, as these channels provide cost-effective and broad-reaching avenues for green promotion. Partnerships with environmental organizations and certifications can further enhance the credibility of these campaigns and build trust among consumers.

Future research should explore the long-term effects of green marketing strategies on brand loyalty and customer retention. Studies could also examine the role of cultural and demographic factors in moderating the relationship between green marketing elements and consumer purchase behavior. Investigating the effectiveness of specific promotional tactics, such as influencer marketing and augmented reality experiences, in promoting eco-friendly products would provide valuable insights. Furthermore, research into the impact of emerging technologies, like blockchain for supply chain transparency, could offer innovative ways to enhance the perception of green products. Analyzing the influence of

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24NOV1100

external factors such as government regulations and economic conditions on green consumer behavior would also be beneficial in understanding the broader context of sustainable marketing.

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