

# Exploring the Impact of Green Marketing Mix on Consumer Purchasing Behaviour: A Systematic Review

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## Abstract

In recent years, growing environmental concerns coupled with the increasing emphasis on sustainability have impacted consumer behaviour and market dynamics, compelling the development and deployment of green marketing strategies. Hence, green marketing emerges as an essential strategic instrument for businesses to satisfy the changing needs of environmentally conscious consumers by incorporating green elements into their marketing mix. Thus, the objective of this study is to explore empirical findings on the impacts of the four green marketing mix elements of green products, green pricing, green placement, and green promotion on consumer purchasing behaviour. To achieve this, the study reviews empirical papers published between 2020 and 2024 and available online from various research databases on the influences of green marketing mix elements on consumer behaviour using a systematic review method. The findings reveal that all four elements of the green marketing mix exert significant positive influences on consumer behavioural factors such as purchase intention and purchase decisions. However, certain elements indicated inconsistent impact across contexts and settings. Therefore, businesses that intend to design and implement green marketing should understand the elements that are essential in their operating environments so that they can achieve success in their green marketing programmes. The study is valuable to businesses implementing green marketing strategies and provides clarity to scholars with interests in green marketing and sustainability as well as contributing to the existing body of literature on marketing and consumer behaviour.

**Keywords:** Green Product; Green Place; Green Price; Green Promotion; Purchase Intention

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## INTRODUCTION

In recent years, growing environmental concerns and increasing emphasis on sustainability have considerably impacted consumer behaviour and market dynamics. The growing concerns about the negative effects of pollution, increasing consumer awareness of environmental issues, and the need for sustainable supply chains are putting significant pressure on businesses to engage in green marketing practices (Alhamad et al., 2023; Liao et al., 2020). In response, businesses are incorporating green features into their marketing strategies from product design to manufacturing processes and promotional activities (Karunarathna et al., 2020). Hence, green marketing emerges as a critical strategy for businesses seeking to meet the needs of environmentally conscious consumers while also promoting sustainability (Pushpanathan & Silva, 2020; Shabbir et al., 2020).

Green marketing involves minimising the environmental impact of marketing by changing product designs, manufacturing methods, packaging, and promotional activities (Gbadeyan & Omolekan, 2015). It represents a marketing practice that considers the environmental effects of a product's entire lifecycle, including design, manufacturing, packaging, labelling, usage, and disposal (Shabbir et al., 2020). Furthermore, in addition to environmental commitment, companies that incorporate green aspects into their marketing strategy stand to achieve competitive advantages in an increasingly saturated market (Tsai et al., 2020). The growing worldwide awareness of concerns such as pollution, climate change, and resource depletion are also leading to increasing demand for green products (Wang et al., 2022). This prompts the development and implementation of the green marketing mix by businesses as a strategic tool to achieve both economic, environmental and social objectives.

The concept of green marketing mix is gaining traction due to the rise in consumer interest in sustainability. The green marketing mix, which builds on the conventional marketing mix, includes green features such as green products, green pricing, green placement, and green promotion aims at achieving both sustainability and consumer appeal (Mahmoud et al., 2024). These aspects can have a major impact on consumer behaviour, particularly purchasing intentions, and help organisations achieve competitive advantages in a more environmentally conscious market (Pushpanathan & Silva, 2020). However, despite the increasing interest in green marketing and sustainability, significant gaps exist between claimed consumers' environmental concerns and their actual purchase behaviour (Mahmoud et al., 2024). This disparity highlights the need for a better understanding of the components of the green marketing mix that have the most impact on consumer purchasing behaviour. Bridging this gap is essential for marketers as they design and implement effective green marketing strategies.

The objective of this study is to evaluate empirical studies published between 2020 and 2024 to assess how the green marketing mix elements are influencing consumer behaviour, specifically concerning green products using the systematic review approach. By synthesising the findings of these studies, the study seeks to provide insights into how businesses, particularly in emerging markets such as Nigeria, can strengthen their green marketing strategies to effectively engage environmentally concerned consumers and achieve sustainable competitive advantage.

Furthermore, the study adds to the growing body of literature on green marketing and consumer behaviour by giving significant insights for both academics and practitioners interested in using sustainability to drive marketing success.

## **LITERATURE REVIEW**

### **Conceptual Review**

#### **Consumer Purchasing Behaviour**

Consumer purchasing behaviour refers to the process through which individuals or households select, purchase, use, and dispose of products for personal use. Understanding this behaviour is crucial for businesses to achieve their objectives, as it informs product development, marketing strategies, and sales forecasting (Agrawal & Ansari, 2022). Thus, green consumer behaviour, as a subset of consumer behaviour, specifically describes actions of consumers to minimise consumption-related negative environmental impacts. These behaviours are typically measured by consumers' willingness to purchase green products due to internal motivations such as values or beliefs or external factors such as social influence or marketing efforts (Ogiemwonyi & Harun, 2020). Green purchasing behaviour, therefore, involves consumer actions that actively contribute to environmental conservation. This includes behaviours such as energy conservation, responsible use of resources, reducing waste, and avoiding or minimising pollution (Karunarathna et al., 2020). Consumers take these actions due to environmental consciousness.

Consumer awareness about the importance of sustainability is increasing due to environmental challenges such as climate change and resource depletion, leading to the rise of green consumption (Wang et al., 2022). Consumers are now more likely and willing to consider the environmental impact of their purchases which results in an increasing demand for green products. This change in consumer preferences makes green purchase intention a reliable indicator of future purchasing decisions and behaviour, and a key predictor of sales in an environmentally conscious market (Pushpanathan & Silva, 2020). Thus, consumer purchasing behaviour in the context of this study refers to the actions of consumers in searching for, selecting, buying, using and disposing of green products to satisfy their needs while contributing to sustainability.

#### **Green Marketing**

Green marketing refers to marketing efforts to integrate environmental concerns into marketing strategies to achieve both organisational objectives and customer satisfaction while minimising negative impacts on the environment (Mustapha et al., 2016). The concept of green marketing emerged from the concept of ecological marketing introduced in 1975 and focuses on the effects of marketing activities on the environment, including pollution, energy consumption, and resource use (Sohail, 2017). Green marketing, over the past 30 years, has become a prominent research topic and green consumers are playing an active role in influencing business practices, contributing to the promotion of a sustainable global economy (Pushpanathan & Silva, 2020). The major goal of green marketing is to reduce environmental impacts by modifying product designs, manufacturing methods, packaging, and promotional

activities (Gbadeyan & Omolekan, 2015). Thus, it represents the response of marketing to the environmental implications of the entire product lifecycle from design, production, packaging, labelling, usage, and disposal (Shabbir et al., 2020). The growing challenges of climate change and global warming have heightened global environmental awareness, prompting governments, non-governmental organisations, investors and other stakeholders to focus more on environmental concerns in recent years (Chen et al., 2024). Hence, green marketing emerges as the marketing response to these challenges.

The aim of green marketing is to balance environmental sustainability with commercial objectives by helping businesses meet consumer demands for green products and contribute to environmental goals. Due to the growing environmental challenges, consumers are becoming more conscious of the impact of their consumption on the environment and marketing managers are increasingly building their decisions on consumer purchase intentions. These intentions represent the likelihood of consumers choosing products that align with their environmental values, making green marketing a key factor in designing marketing strategies (Pushpanathan & Silva, 2020). Thus, this study considers green marketing as a business practice which focuses on the production, distribution, pricing and promotion of green products with lower or no environmental impacts to satisfy consumer needs and wants to achieve business profit objectives while promoting sustainability.

### **Green Marketing Mix**

The green marketing mix refers to techniques that help companies meet consumer needs while remaining environmentally sustainable, highlighting the focus of companies on producing biodegradable and non-harmful products, employing green packaging, optimising energy use, and engaging in manufacturing practices that are aware of their environmental consequences (Kotler, 2011). It differs from the traditional marketing mix in that it focuses on activities that benefit the environment, rather than profit (Khan et al., 2020). However, the theoretical framework of the marketing mix affords significant understanding in clarifying the various components of the green marketing mix (Mahmoud et al., 2024). Hence, it contains components including green products, green prices, green placing, and green promotion (Mahmoud et al., 2024). Thus, green marketing mix in this regard pertains to the combination of green products, green pricing, green placing and green promotion by an entity to satisfy environmentally conscious consumers and achieve other business objectives.

### **Green Product**

Green products, otherwise called ecological, sustainable, environmental, and eco-friendly, are the focal point of all green marketing efforts (Agrawal & Ansari, 2022). Green products are products that minimise harmful impacts on the environment and consumers. These products are environmentally friendly and free of possibly harmful substances (Wang et al., 2022). Green products are becoming increasingly popular due to limited resource use, waste, and environmental concerns because the product's ecological qualities are developed to consider its entire life cycle, from manufacturing to disposal (Agrawal & Ansari, 2022). Environmental development objectives advocate for the minimisation of energy consumption, a reduction in

thermal and pollutant emissions, and the optimisation of the sustainability of limited resources (Karunarathna et al., 2020). Hence, in contrast to standard products, green products use non-toxic raw materials that are biodegradable, use recyclable packaging, consume less energy, and are more expensive than non-green products (Wang et al., 2022). Green products and their environmental qualities are crucial for businesses to provide environmentally safer products, such as packaging that is recyclable and biodegradable (Mustapha et al, 2016). However, in the context of this study, green products are considered as those products that are less harmful to the environment, produced with fewer raw materials, are recyclable, use a limited amount of energy, are biodegradable and not harmful to consumers.

### **Green Price**

Green pricing is one of the primary and critical components of the green marketing mix (Agrawal & Ansari, 2022). Green pricing refers to the cost of items that prioritise environmental sustainability. Green products may be more expensive than traditional ones (Karunarathna et al., 2020). This concept may be perceived as compensation for the ecological benefits associated with the purchase of green products (Agrawal & Ansari, 2022). Green products typically cost more than non-green products due to increased costs associated with green methods, materials, and obtaining eco-label certification (Pushpanathan & Silva, 2020). In addition to the financial cost, the price of green products might occasionally include opportunity, energy, and psychological costs. However, when the primary benefits of green products outweigh those of non-green products, consumers will rush to purchase green products even if their prices are slightly higher than those of conventional products (Pushpanathan & Silva, 2020). Thus, in this context, green price entails the value which consumers pay in exchange for green products to satisfy their needs and wants in a sustainable way.

### **Green Placing**

Placing or distribution is how consumers can obtain the marketer's products. In green marketing, placing is an essential element for creating the green concept (Pushpanathan & Silva, 2020). Green placing involves delivering green products from the company to consumers while adhering to environmental standards and ensuring quality (Agrawal & Ansari, 2022). It includes channels, coverage, transit, location, and logistics (Pushpanathan & Silva, 2020). Customers are more likely to purchase locally available green products than those who require a long purchase journey. Hence, as part of their green marketing mix, marketers use a green placing strategy to ensure green products are available at the right time, quantity, and location (Kaur et al., 2022). Thus, to effectively sell their products, marketers must have a broad market position as customers tend to prefer green products that are conveniently accessible (Karunarathna et al., 2020). However, green placing is about managing logistics to reduce transportation emissions, hence lowering the carbon footprint (Pushpanathan & Silva, 2020). Hence, marketers adhering to green marketing practices must ensure that green products are distributed in environmentally friendly ways. Thus, this study considers green placing as the process of distributing green products to ensure that consumers obtain these products at the right place, time, quantity and quality in a way that is less harmful to the environment.

## **Green Promotion**

Green promotion involves informing potential customers about the environmental benefits of products and services without harming the environment (Mahmoud, 2019). Green promotion entails designing promotional tools such as advertising, marketing materials, signage, white papers, websites, videos, and presentations with people, planet, and profit in mind (Agrawal & Ansari, 2022). Accordingly, green promotion entails sharing environmental facts with customers about the company's products (Karunarathna et al., 2020). By keeping people, profit, and the environment in mind, green promotion helps to manage the promotion tools, including public relations, sales promotion, direct marketing, personal selling, and advertising (Pushpanathan & Silva, 2020). Hence, to succeed in the market, green enterprises must promote the health and environmental benefits of their products through several promotional channels, including advertising, personal selling, and public relations (Mustapha et al, 2016). Moreover, to reach a broad spectrum of green consumers, green marketers might draw customers based on performance, cost savings, convenience, health, or simply being environmentally friendly as educating customers on the advantages of eco-friendly products is one way to raise consumer awareness (Pushpanathan & Silva, 2020). Thus, green promotion involves the process of communicating with consumers concerning green products in an environmentally sensitive way and avoiding the use of misleading or false messages while appealing to consumers.

## **Theoretical Review**

### **The Stimulus-Organism-Response (SOR) Theory**

The stimulus-organism-response (S-O-R) theory is propounded by (Russell & Mehrabian, 1974) as an important model for studying how human beings react to stimuli. The basic goal of the theory is to expand the understanding of how environmental stimuli (S) affect consumers' perceptions (O), which ultimately spark emotions that drive consumer responses (Rivas et al., 2022). The SOR theory is widely used in the green consumer behaviour literature (Han et al., 2022). The study of Tan (2023) applied the SOR to examine green patronage intention of hotels and the findings confirm the significance of the theory in explaining consumer intention. This study adopts the SOR theory to explain how green marketing mix elements influence consumer purchasing behaviour. Therefore, applying the SOR to the present study, the green marketing mix elements: green products, green price, green placement and green promotion represent the stimuli (S); the consumer attitudes and green perception represent organism (O); and the consumer behaviour such as green purchase intention and green purchase decisions are the responses (R). Thus, when exposed to green marketing mix elements, consumers' attitudes and perceptions towards green products might be influenced, leading to green purchasing behaviour.

## **METHODOLOGY**

The study reviewed the impact of green marketing mix in terms of green products, green prices, green placement, and green promotion on consumer behaviour based on empirical studies conducted by scholars in various settings and contexts using systematic review method. Thus,

data were obtained from secondary sources such as journals and conference proceedings available from online sources. Empirical articles were obtained from online research databases including Google Scholar, ResearchGate, PubMed and MDPI using search terms which includes “Green Marketing Mix”, “Green Marketing Strategy”, “Green Marketing Mix and Consumer Behaviour” and “Green Marketing Mix and Consumer Buying Behaviour”. However, the article inclusion criteria are based on empirical studies, published between 2020 and 2024, written in the English Language and capture the variable(s) of the study. Table 1.0 below presents a list of the empirical papers reviewed, the databases and their locations.

**Table 1.0: List of Empirical Papers Reviewed**

| S/No. | Author(s)                      | Place     | Predictors Variable(s)                                                              | Outcome Variable(s)        | Moderator/Mediator Variable(s)                | Source/Database |
|-------|--------------------------------|-----------|-------------------------------------------------------------------------------------|----------------------------|-----------------------------------------------|-----------------|
| 1.    | Khan et al. (2020)             | Pakistan  | Green marketing mix: Green products; green prices, green promotion; and green place | Purchase intention         | -                                             | ResearchGate    |
| 2.    | Karunarathna et al. (2020)     | Sri Lanka | Green Marketing Mix: Green Product; Green Price; Green Place; and Green Promotion.  | Green Purchasing Intention | Customer's Environmental Attitudes - Mediator | ResearchGate    |
| 3.    | Ogiemwonyi and Harun (2020)    | Malaysia  | Green product awareness; Green Trust; and Green Value.                              | Green consumer behaviour   | Green Attitude-Mediator                       | Google Scholar  |
| 4.    | Pushpanathan and Silva, (2020) | Sri Lanka | Green Marketing Mix: Green Product                                                  | Green Purchase Intention   | Personal Factors-Moderator                    | Google Scholar  |

| S/No. | Author(s)                    | Place     | Predictors Variable(s)                                                                | Outcome Variable(s)         | Moderator/Mediator Variable(s)                                                       | Source/Database |
|-------|------------------------------|-----------|---------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------|-----------------|
|       |                              |           | Mix; Green Price Mix; Green Place Mix; and Green Promotion Mix.                       |                             |                                                                                      |                 |
| 5.    | Astuti et al. (2021)         | Indonesia | Green products; green prices; green placing; and green promotion.                     | Purchasing decision         |                                                                                      | Google Scholar  |
| 6.    | Agrawal and Ansari (2022)    | India     | Green Product; Green Price; Green Place; and Green Promotion.                         | Green Purchase Intention    |                                                                                      | Google Scholar  |
| 7.    | Kaur et al. (2022)           | India     | Green marketing mix: Green products; green prices; green places; and green promotion. | Green buying intention      | Environmental attitudes - moderator; and consumers' demographics - control variables | MDPI            |
| 8.    | Narimanfar and Nezhad (2022) | Iran      | Green products; green promotion; green price; and green place.                        | Consumer purchase decisions |                                                                                      | Google Scholar  |

| S/No. | Author(s)              | Place     | Predictors Variable(s)                                                                                             | Outcome Variable(s)                                                                | Moderator/Mediator Variable(s)                                            | Source/Database |
|-------|------------------------|-----------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------|
| 9.    | Ahmed et al. (2023)    | USA       | Green attitude; green customer value; and green marketing mix (product, packaging, price, promotion, and place)    | Green purchasing intention.                                                        | green psychological benefits (mediator) and green advertising (moderator) | PubMed          |
| 10.   | Nguyen-Viet (2023)     | Vietnam   | Green marketing mix: Green product program; green price program; green place program; and green promotion program. | Green CBBE: Green trust; green brand image; green satisfaction; and green loyalty. | -                                                                         | MDPI            |
| 11.   | Mahmoud et al. (2024)  | Ghana     | Green Marketing Mix: Green Product; Green Price; Green Place; and Green Promotion.                                 | Green Repurchase Intention                                                         | Green Knowledge-Moderator                                                 | Google Scholar  |
| 12.   | Soegesti et al. (2024) | Indonesia | Green marketing mix                                                                                                | Purchase intention                                                                 | Environmental awareness - Mediator                                        | Google Scholar  |

Source: Literature Review (2024)

**EMPIRICAL FINDINGS**

This section of the paper presents results from the review of the empirical studies conducted in the course of this research. These findings are summarised according to the four green marketing mix elements in the succeeding subsections.

### **Green Product and Consumer Behaviour**

Green products, known for their sustainable features, are crucial in shaping consumers' buying behaviour (Astuti et al., 2021). Consumers are inclined towards products that are free from harmful substances and produced in an environmentally sustainable manner. The findings of Khan et al. (2020), Karunarathna et al. (2020), Pushpanathan and Silva (2020), Kaur et al. (2022), and Ahmed et al. (2023) indicate that green products have a considerable relationship and significant positive impact on green purchase intention. Similarly, the findings of Ogiemwonyi and Harun (2020) indicate that green product awareness influences green consumer behaviour, green value and green trust. Moreover, a study by Astuti et al. (2021) revealed that green products have a substantial influence on purchase decisions. Furthermore, Nguyen-Viet (2023) found that green products have a positive impact on satisfaction and brand loyalty. These findings highlight the positive impact of green products on consumer purchase intention and decisions. This implies that the greater the perception of consumers that a product is green, the higher the purchase intention and the better the decision to purchase such products.

Conversely, the findings of Agrawal and Ansari (2022) reported that green products do not significantly influence the purchase intention of fast-moving consumer goods (FMCG). Also, the findings from Narimanfar and Nezhad (2022) indicated that green products have a negative but insignificant impact on consumer green purchase decisions. Similarly, the study of Mahmoud et al. (2024) revealed that green products had a negative and insignificant influence on repurchase intention, however, green knowledge weakened the relationship. These contrasting findings indicate the variations in the influences of green products in different contexts which highlight the need for understanding the green marketing mix elements that are more important in influencing consumers' purchasing behaviour in different settings.

### **Green Price and Consumer Behaviour**

Green price as a component of the green marketing mix influences consumer behaviour towards green products. Studies on the impact of green marketing mix on consumer behaviour have found divergent results in this regard. The studies of Karunarathna et al. (2020), Pushpanathan and Silva (2020), and Ahmed et al. (2023) show that green prices have significant positive influences on green purchasing intention. In addition, the findings of Astuti et al. (2021) revealed that green prices have a substantial influence on purchase decisions. Moreover, Narimanfar and Nezhad (2022) reported that green prices have a substantial positive effect on consumer green purchases. Furthermore, the study of Nguyen-Viet (2023) observed that green prices have a positive impact on green brand image, trust, satisfaction, and green loyalty. Also, Mahmoud et al. (2024) observed that green prices have a substantial positive correlation with repurchase intentions and green knowledge was found to have moderated the relationship. These findings suggest that though green products mostly charge higher prices,

some consumers still have positive inclinations towards them.

However, the findings of Khan et al. (2020), Kaur et al. (2022) indicates that green price has no significant effect on purchase intention. Accordingly, the findings of Agrawal and Ansari (2022) show that green prices have a negative influence on customers' purchase intention of green FMCG products, thus, a price rise will result in a minor fall in purchasing intention, indicating that customers consider green products expensive and do not want to pay a higher premium. These contrasting results indicate the necessity for understanding how green prices influence consumer behaviour in different consumer groups and populations to design an effective green marketing strategy.

### **Green Placing and Consumer Behaviour**

Green placing represents an essential aspect of the green marketing mix, dealing with activities undertaken to sustainably provide green products at the right location, time and quantity, hence, might influence consumer behaviour. The study of Khan et al. (2020), Pushpanathan and Silva (2020), Kaur et al. (2022), Ahmed et al. (2023), Soegesti et al. (2024), indicated that green places have a significant positive relationship with and impact on purchase intention. Moreover, the study Narimanfar and Nezhad (2022) show that green distribution positively and substantially affects consumer green purchase decisions. Furthermore, the study of Nguyen-Viet (2023) found that green places greatly improve green CBBE dimensions, which include green trust, green brand image, green satisfaction, and green loyalty. In addition, Mahmoud et al. (2024) observed that green placing has a substantial positive correlation with the repurchase intentions of consumers in Ghana and green knowledge significantly moderated the relationship. These positive results indicate the essential roles of green placing in influencing consumer behaviour. This implies that products should not only be less harmful to the environment but in addition, they should be distributed using less harmful means and processes.

Conversely, the findings of Karunarathna et al. (2020) and Agrawal & Ansari (2022) show that green places have no significant impact on customers' green purchase intention. Similarly, the findings of Astuti et al. (2021) show that green places had an insignificant influence on purchasing decisions because consumers, who were largely snack manufacturers, did not consider the distance to the marketplace in Indonesia. These findings signify that green placing plays an essential role in influencing consumer behaviour towards green products, however the contrasting results highlight the inconsistent influences of green placing across different consumer groups suggesting the need for clearer understanding of its significance by marketers in their individual operating environments.

### **Green Promotion and Consumer Behaviour**

Green promotion entails informing and persuading consumers about the environmental benefits of green products, it might influence their purchasing intention, decisions and behaviour. Therefore, studies on the influence of green marketing on consumer behaviour have reported various findings on the relationship between green promotion and consumer behavioural factors. A study by Khan et al. (2020), Karunarathna et al. (2020), Pushpanathan and Silva (2020), Kaur et al. (2022), reveal that green promotion had a significant impact on purchase

intention. Moreover, the study of indicates that the green promotion mix has a significant positive impact on consumer purchase intention and Astuti et al. (2021) and Narimanfar and Nezhad (2022) show that green promotions have a substantial influence on purchase decisions. Additionally, the study of Nguyen-Viet (2023) found that green promotion has a significant positive influence on green CBBE characteristics, including brand image, trust, satisfaction, and loyalty. Also, Mahmoud et al. (2024) indicate that green promotions have a substantial positive correlation with repurchase intentions, however, green knowledge weakened the correlation between green promotion and repurchase intention. Thus, these positive results indicate the crucial roles of green promotional efforts in influencing consumer behaviour. This implies that the higher the exposure of consumers to green promotional campaigns, the greater their green purchase intention and the better their purchase decision towards green products.

Conversely, Agrawal and Ansari (2022) report that promotions negatively influence customers' purchase intentions of green FMCG products. The study further contended that the low negative correlation between green promotion and purchase intention suggests that some consumers view green FMCG promotions as a gimmick to induce them to buy the items. Thus, this suggest that consumers perception of deception in green promotion can affect their attitudes towards purchase intention and decisions. In sum, the above findings underscore that green promotion is a crucial element of the green marketing mix that significantly influences consumer purchasing intention and decision, two essential aspects of and predictors of consumer behaviour.

## **CONCLUSION AND IMPLICATIONS**

The study examined empirical papers on the influences of green marketing mix on consumer behaviour based on the green marketing mix elements of green products, green price, green placing and green promotions based on systematic review method. A total of twelve (12) empirical studies published between 2020 and 2024 were obtained from online research databases and analysed based on their findings. The results indicate that the four green marketing mix elements are generally having significant positive influences on green purchase intention and purchase decisions. However, some results show that certain elements have insignificant and slightly significant negative impact on consumer behaviour in some contexts. This underscores the divergent nature of the influences of the green marketing mix factors on consumer behaviour. Thus, these findings have both practical and theoretical implications.

The practical implication is that the green marketing mix is an indispensable factor for green marketers in designing and executing their marketing programmes and strategies focused on environmentally conscious consumers. Hence, this implies that marketers need to clearly understand those elements that are the most influential and significant in their marketing environment so as to design effective green marketing strategies to achieve their economic, environmental and social objectives.

The theoretical implication is that the findings explain how green marketing mix elements affect consumers' behavioural intentions and purchase decisions, underscoring the efficacy of the green marketing mix elements as marketing stimuli in influencing consumer behaviour.

This confirms the significance of the marketing mix theory and the SOR theory in explaining green consumer behaviour. However, the studies mostly concentrated on purchase intention and failed to assess the influences of the green marketing mix variables on actual purchase behaviour. Although purchase intentions are important determinants of purchasing behaviour, however, many consumers expressing positive predispositions towards green consumption and environmental concerns seldom transform their intention to action. Hence, future studies should consider how these green marketing elements influence consumers' actual green purchasing behaviour.

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