EFFECT OF GREEN MARKETING MIX ON GREEN CUSTOMER SATISFACTION AND LOYALTY IN KATHMANDU VALLEY 🔓 Crossref

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A R T I C L E   I N F O

A B S T R A C T

In recent years, sustainability has become a key factor in determining customer satisfaction and loyalty. In real terms, customers have demonstrated a favorable willingness to pay for sustainable solutions, including eco-friendly and eco-efficient goods and services. So, this research examines the impact of the green marketing mix on customer satisfaction and loyalty. This study also investigates the mediating effect of green customer satisfaction on customer loyalty. The study employed a quantitative research design and collected primary data through a structured questionnaire using a purposive sampling method from 340 green marketing customers in the Kathmandu Valley. The raw data were imported into the Statistical Package for the Social Sciences software to present demographic status and examine the internal factor structure reliability using exploratory factor analysis. Next, a measurement model and structural equation model were used to convert information into comprehensive knowledge by the Analysis of Moment Structure software. The results show that green marketing mix components are significant in predicting green customer satisfaction (H4: β = 0.146, p < 0.05) but are insignificant in predicting green customer loyalty (H5: β = 0.002, p > 0.05). However, the research also reveals a significant mediating effect of green customer satisfaction on loyalty (H6: β = 0.205, p < 0.05). The direct impact of green product value, price, and social media information is momentous in the green marketing mix. Incorporating a green marketing mix approach into a business's overall marketing plan can impressively benefit environmentally conscious enterprises in the Kathmandu Valley by ensuring their customers remain loyal and satisfied.

INTRODUCTION

Ecological and environmental sustainability challenges are growing highly significant in today's world. Everyone is very concerned about sustainable growth that does not harm the environment. In the modern era, customers are increasingly willing to prioritize sustainable solutions in various products and services (Alessandri, 2025; Yasari et al., 2025). Green marketing refers to the process of identifying, promoting, and selling goods and services based on their environmental friendliness (Reddy et al., 2023). It is also known as "sustainable marketing" and "eco-friendly marketing," It focuses on the benefits and values of environment-friendly goods and services.

One of the significant ideas of this era is to adopt a "go green" or "green program" approach, promoting eco-friendliness and a "green culture" globally (Parlan et al., 2016). Consumers view green products as safe, sustainable, and healthy. Furthermore, marketers are beginning to recognize the significance of green marketing and promoting items in an eco-friendly way. It includes green production processes, product modification, packaging, increasing consumer awareness of compliance marketing, and advertising (Abzari et al., 2013; Geap et al., 2018).

Every firm has a preferred marketing mix. Different marketing mixes include four to seven Ps. The four Ps of the marketing mix is conventional marketing, which is applied creatively (Abzari et al., 2013; Al Badi, 2018; Mahmoud, 2019). So, this study also focused on a creative marketing mix. Green product value, pricing, and social media information are considered key components of the marketing mix. "Environmentally friendly" goods and services are those that do not negatively impact the surrounding landscape and provide product value to their customers (Cao & Hong, 2011; Geap et al., 2018). Green pricing provides effective productivity by considering the needs of people, the environment, and profit. It also protects the health of consumers. It can be made more valuable by altering its appearance, enhancing its functionality, or

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customizing it. Price mix is a crucial component of the marketing mix. It is generally acknowledged that it is the most effective way to reach consumers and influence their purchasing decisions (Hanaysha, 2017).

Social media encompasses a range of digital platforms, apps, and media that enable individuals or groups to communicate, collaborate, and share content. Organizations employ social media platforms for many objectives (Mehrabioun, 2024). These platforms allow companies to improve their relationship marketing initiatives (Kwayu et al., 2021). In today's world, social media is almost ubiquitous in providing information.

As of February 2025, there were 5.56 billion internet users globally, representing 67.9% of the world's population. Additionally, 5.24 billion people, or 63.9% of the global population, use social media (Statista, 2025). The customer's level of satisfaction is influenced by the information available on social media. In this era of technological advancement, social media plays a vital role in promoting products and services. Thus, green products, prices, social media promotion, and other mixes have a favorable effect on customer satisfaction and loyalty (Hanaysha, 2017; Parlan et al., 2016).

Today's commercial world is expanding rapidly, and with it come more complex environmental issues. Environmental issues are now strategically important and should be researched and addressed by several stakeholders. Environmental protection initiatives are currently expanding in tandem with rising consumer awareness. Consumers and businesses are two groups that contribute to preserving environmental sustainability. Environmental conservation is currently rising in tandem with rising consumer consciousness (Baral et al., 2020; Bhatta et al., 2009; Hariram et al., 2023; Kwayu et al., 2021; Panizzut et al., 2021; Shrestha, 2018).

It is highly valuable to preserve environmental sustainability. Businesses and consumers must cooperate through the green marketing mix. A key factor affecting decisions to buy products is the marketing mix. Therefore, a green marketing mix has a positive impact on green customer satisfaction and loyalty. Thus, in the Nepalese context, this study investigates whether the green marketing mix influences the consumer satisfaction and loyalty of millennials. Thus, the study aims to address research issues related to the green marketing mix and its impact on customer satisfaction and loyalty. What are the statuses of the green marketing mix in Kathmandu Valley? What is the mediating effect of green satisfaction between the green marketing mix and green loyalty?

The assessment of the Kathmandu Valley's green marketing mix status and an investigation of the mediating effects of green satisfaction on the relationship between the green marketing mix and green loyalty are among the study's objectives outlined in the research difficulties. The study employed a quantitative research methodology to achieve its objectives, utilizing a structured questionnaire to collect data from primary sources, including consumers in the Kathmandu Valley who were interested in green marketing. Raw data were transformed into information and general knowledge by presenting demographic status, conducting exploratory factor analysis to assess the internal factor structure reliability, and testing hypotheses using structural equation modeling.

LITERATURE REVIEW

Jerome McCarthy provides a marketing mix model comprising product, price, promotion, and place (4Ps), which are the primary components of an organization's marketing strategy aimed at getting closer to the consumer. The McCarthy 4P marketing mix model has stepped in with a renewable P model as developments in marketing strategies and time have progressed. The marketing mix expanded to include people, physical evidence, and process factors to address the competitive environment in this modern era (Goi, 2009; Kushwaha & Agrawal, 2015; Mehrabioun, 2024). Numerous studies have been carried out in the area of the green marketing mix from the perspective of the customer since both consumers and businesses have started to pay greater attention to the environmental effects of their actions (Chang & Fong, 2010; Chen, 2010; Mehrabioun, 2024; Pheng Low & Tan, 1995; Tamim & Akter, 2024)

Green Products, Green Customer Satisfaction, and Loyalty

A green product refers to materials that are made from recyclable or renewable sources and are safe for both the environment and human health (Cao et al., 2021; Chang & Fong, 2010; Geap et al., 2018). The characteristics of a green product include high quality, non-toxicity, recyclability, minimal packaging, and long-lasting durability. It is not perishable and of a higher caliber than regular items, helping to preserve natural resources for future generations (Kaur et al., 2022; Kushwaha & Agrawal, 2015; Okadiani et al., 2019). Green marketing is the practice of promoting eco-friendly goods and services that satisfy customer demands without endangering the environment or society (Tamim & Akter, 2024).

Customers desire and choose to purchase environmentally friendly green products to attain product value (Cao et al., 2021; Chang & Fong, 2010). A consumer's assessment that a characteristic of a product or service, or the product or service itself, is offering a satisfying degree of consumption is known as satisfaction. Green consumer satisfaction refers to the feeling that a consumer experiences when their purchase meets a need, want, or desire related to environmental or green concerns, fostering green customer loyalty. The result of consumption was that the performance either surpassed or satisfied consumers' green demands, legal criteria related to the environment, and societal expectations around sustainability by buying its goods and services (Chang & Fong, 2010; Parlan et al., 2016; Shalash, 2021). Green products have encouraged companies to become ecologically conscious and opened up new market prospects (Nguyen-Viet, 2023). Green product features and quality enhance the value of products and services, which in turn influence customer satisfaction and loyalty, as expressed in the following hypotheses.

H₁: Green product value has a positive association with the marketing mix.

Green Pricing, Green Customer Satisfaction, and Loyalty

Another primary element of the marketing mix is pricing (Kotler, 2011). The competitive edge is achieved through pricing. The marketing mix's price is the sole variable that must be determined about the other three Ps: people, physical evidence, and process. A contract value proposed at the tender stage represents the cost of construction services (Pheng Low & Tan, 1995). The market often sees green products at a premium price (Geap et al., 2018; Mahmoud, 2019; Parlan et al., 2016). Every green business bases the cost of its products on both environmental and economic factors. Discounts for recycling packaging are examples of pricing schemes that can be implemented strategically.

Green pricing is the process of setting prices for environment-friendly products. These prices may be higher than those of conventional non-green products because green products require more expensive raw materials to maintain their quality, use safer alternatives to chemicals and other harmful substances, and have higher production costs as a result of tighter regulations (Kushwaha & Agrawal, 2015; Mahmoud, 2019; Shalash, 2021). Green pricing programs focus on pricing strategies that offer customers value and businesses a fair return while also considering the economic and environmental costs associated with production and marketing. Businesses may employ pricing strategies, such as offering refunds for returns of recyclable packaging or increasing the cost of environmentally unfriendly goods (Nguyen-Viet, 2023).

Green pricing considers sustainability and human health in addition to the three Ps —people, planet, and profit (Kaur et al., 2022). According to Mohammad (2015), although the price is thought to have little effect on bank customers' contentment, value is important in raising customer satisfaction levels. Therefore, it should not be disregarded.

H₂: Green pricing has a positive association with the marketing mix.

Social Media Information, Green Customer Satisfaction, and Loyalty

Social media advertising is becoming increasingly popular and is growing rapidly due to advancements in internet facilities and technology. Social media promotion is becoming a primary mode of communication as more customers actively use social media for product searches and purchases (Ktisti et al., 2022). This is a significant marketing strategy that promotes products and services quickly through social media about a brand, service, or product (Okadiani et al., 2019). Businesses should actively promote their green goods and services using a range of integrated marketing communication channels. This endeavor aims to assist and promote consumers' green purchasing decisions by enhancing the reputation of green brands.

In addition to drastically changing the green consumption market, the quick development of newsfeed advertising technology has also had a significant influence on consumer psychology and behavior. Customers' sensitivity to highly sociable green newsfeed advertising varies, which in turn influences their openness to new green products (Cao et al., 2021). Green pricing of goods and services refers to pricing strategies that provide consumers with value and businesses with a reasonable return while considering the financial and environmental costs associated with manufacturing and marketing (Nguyen-Viet, 2023). The social media nature of newsfeed advertising influences how consumers adopt new, environmentally friendly goods. The direct and intermediary effects on consumer satisfaction and loyalty were examined through the following hypotheses.

H₃: Social media information has a positive association with the marketing mix.

Green Marketing Mix with Customer Satisfaction and Green Customer Loyalty

Customer satisfaction is most widely used to describe how well a particular goods or service meets or exceeds the expectations of the customers. Kotler (2011) defines it as a person's feeling of pleasure or disappointment resulting from comparing a product's perceived performance (or outcome) with their expectations. The need for businesses to adopt sustainable practices and the growing awareness of environmental issues has led to the rise in the popularity of green marketing (Tamim & Akter, 2024).

It is impossible to overstate the importance of customer satisfaction for a company's continued existence and expansion, both practically and conceptually. Businesses may encounter a range of problems and difficulties in trying to stay in business when their customers are dissatisfied. The literature has several definitions of what constitutes a satisfied client (Hanaysha, 2017).

Currently, there is a growing demand for businesses to act more responsibly and sustainably. Businesses are under pressure from certain interested groups to decrease their negative impacts on society and the environment. People began purchasing products with the fewest adverse environmental impacts, and society at large began to show greater concern for the environment as environmentalism gained traction. Furthermore, in recent years, environmental regulations worldwide have become increasingly stringent (Chang & Fong, 2010; Park et al., 2020; Parlan et al., 2016; Shalash, 2021).

Environmental commitments and concerns were found to be related to green customer loyalty. Customer satisfaction is a significant factor in determining brand loyalty (Yasari et al., 2025). According to several studies, a customer is considered to be loyal to a green business (Chang & Fong, 2010; Wong et al., 2023; Zhang et al., 2023). Repurchasing, recommending, displaying a willingness to pay more, and buying additional items with an institute are the goals. Green consumer satisfaction has a positive influence on green customer loyalty. It is common practice to use customer satisfaction data to predict future purchases (Kotler, 2011; Oliver, 1980). Satisfied customers are more likely to recommend that others try the source of their satisfaction and make further purchases in the future (Zeithaml et al., 1985).

In addition to being an ecologically conscious marketing tool, the Green Marketing Mix is a comprehensive concept that utilizes distribution networks, promotional tools, best pricing practices, and high-quality products to enhance customer satisfaction and loyalty directly. Positive brand experiences and environmental principles are more likely to inspire

loyalty, which is crucial for long-term company success in a market increasingly concerned with sustainability (Nguyen-Viet, 2023; Yasari et al., 2025).

The green marketing mix comprises marketing tools, strategies, and components that enable a business to achieve its objectives, serve its target market, and minimize environmental impact. In other words, green marketing mix strategies aim to achieve the company's strategic objectives while reducing its adverse environmental effects (Nguyen-Viet, 2023).

This study offered two unique constructs: green customer satisfaction and green loyalty. Consumption resulted in performance that either matched or beyond consumers' green demands, environmental rules' criteria, and society's sustainable expectations for green products and services. The following research hypotheses explain the beneficial relationship between green consumer satisfaction and customer loyalty.

H₄: Green marketing mix has a positive relationship with customer satisfaction.
H₅: Green marketing mix has a positive relationship with green customer loyalty.
H₆: Green customer satisfaction has a positive relationship with green customer loyalty.

A limited literature analysis has focused on the relationship between the green marketing mix and consumer satisfaction and loyalty despite an increasing trend in recent years for interest in social media information and the marketing mix. Therefore, the goal of this study is to bridge this research gap and provide a comprehensive analysis of the green marketing mix and current trends. Although green promotion has been the subject of earlier studies, social media has largely overlooked it. Therefore, the study also focused on social media information to fill the research gap. The research framework and its hypotheses are presented in Figure 1, based on the study's difficulties and objectives.
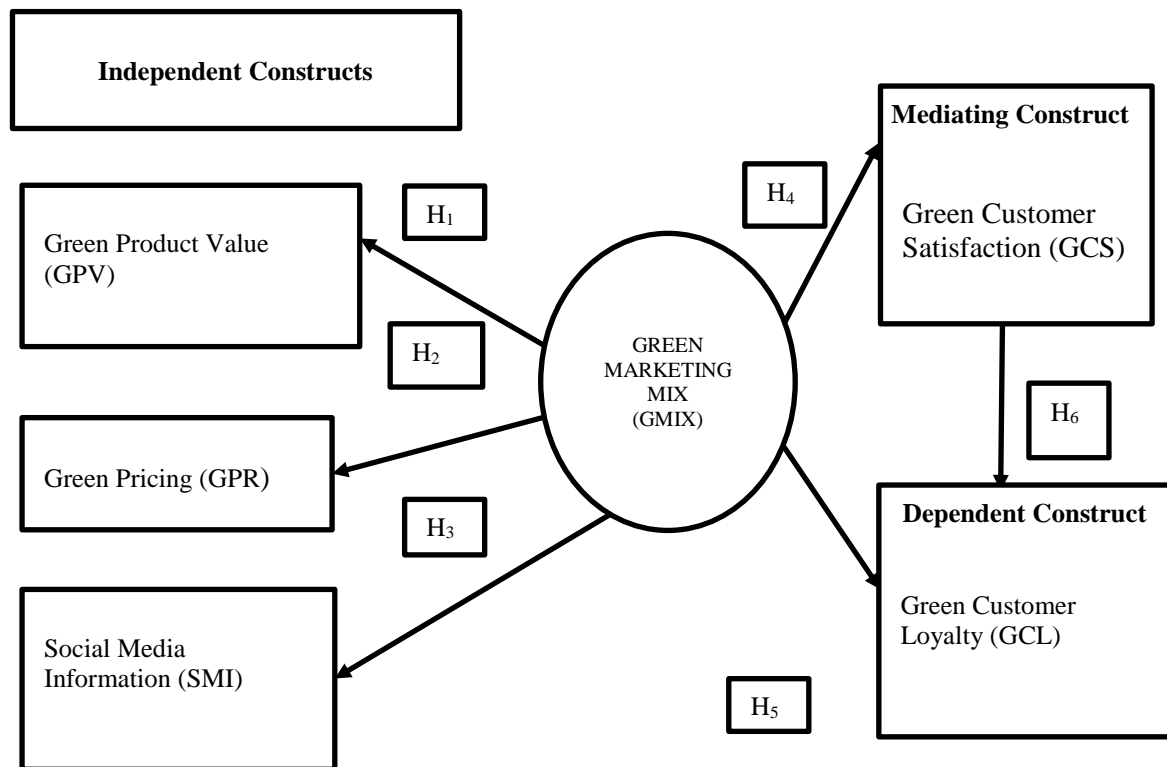

Figure 1. Theoretical Framework (Chang & Fong, 2010; Chen, 2010; Mehrabioun, 2024; Pheng Low & Tan, 1995)

Figure 1 illustrates green product value, green pricing, and social media information as independent constructs, with green customer satisfaction serving as a mediating variable and green customer loyalty as the dependent variable in the research. The study aims to investigate the direct impact of a green marketing mix on green customer satisfaction and loyalty. Additionally, it examines how green consumer loyalty is mediated by green customer satisfaction.

MATERIALS AND METHODS

The study employed a quantitative research approach. This study was conducted in Nepal's Bagmati Province, specifically in the Kathmandu Valley. The study population consists of customers who purchase green products and services in the Kathmandu Valley. The data collected from 340 customers using purposive sampling techniques were sufficient (Sekaran & Bougie, 2016) and were gathered through a standardized questionnaire graded on a 5-point Likert scale, with 1 representing "strongly disagree" and 5 representing "strongly agree" (Joshi et al., 2015; Rasmussen, 1989). Purposive sampling techniques are undertaken to get vital data that cannot be obtained through other means (Sharma, 2017; Taherdoost, 2016).

Respondents in the Kathmandu Valley were approached and asked to complete questionnaires to collect data. Those who frequently bought green products were chosen as respondents. Data were analyzed using SPSS and AMOS

software to determine the effect of the green marketing mix on customer satisfaction and loyalty. The data were examined using structural equation modeling.

The components of the green marketing mix were extracted using exploratory factor analysis (EFA). The components were validated and confirmed using confirmatory factor analysis (CFA). This aim is best served by a structural equation modeling (SEM) strategy as it provides a deeper and more comprehensive understanding of the prerequisites and assumptions needed for an appropriate green marketing mix. SEM has been a popular analytical tool (Chou & Bentler, 2002) because it may efficiently accomplish research goals such as examining the mediating role of customer satisfaction on customer loyalty. The measurement model is frequently included before structural equation modeling (Anderson & Gerbing, 1998; Fornell & Larcker, 1981).

RESULTS

Demographic Status

Table 1. Demographic Status of Respondents

	Description of Demographic Status	Frequency	Percent
Gender Status	Male	153	45
	Female	187	55
	Total	340	100
Age Status	20-30	86	25.1
	30-40	146	42.8
	40-50	89	26.5
	Above 50	19	5.6
	Total	340	100
Education Status	Literate	24	7.1
	Secondary School Graduates	55	16.2
	Higher Secondary School Graduates	140	41.1
	University Graduates	121	35.6
	Total	340	100
Profession Status	Full-time	145	42.6
	Part-time	119	35.0
	Unemployed	30	8.8
	Retired	23	6.8
	Others	23	6.8
	Total	340	100
Marital Status	Single/Unmarried	151	44.4
	Married	164	48.2
	Widowed	19	5.6
	Divorced	6	1.8
	Total	340	100

The survey had 45% male and 55% female responders. The age group of 30 to 40 comprised 42.8% of all replies, with the following highest percentages being from 20 to 30 (25.1%), 40 to 50 (26.5%), and above 50 (5.6%). Regarding education, the majority of respondents (41.1%) were high school graduates, followed by university graduates (35.6%), secondary school graduates (16.2%), and those with a literacy level (7.1%). In terms of profession, the majority of respondents were full-time employed (42.6%), followed by part-time employed (35%), unemployed (8.8%), retired (6.8%), and those in other categories (6.8%). The bulk of respondents, 48.2%, were married, followed by those who were single or unmarried (44.4%), widowed (5.6%), and divorced (1.8%).

Exploratory Factor Analysis

The research constructs were identified and improved using exploratory factor analysis (EFA). Latent constructs were generated for the next stage of the Confirmatory Factor Analysis (CFA) using EFA, explained in Table 2.

Table 2. Rotated Components Matrix

Component	1	2	3	4	5
GPV1	0.775				
GPV2	0.836				
GPV3	0.665				
GPV4	0.859				
GPR1		0.839			
GPR2		0.766			
GPR3		0.673			
GPR4		0.848			
SMI1			0.781		
SMI2			0.790		
SMI3			0.796		
SMI5			0.761		
GCS1				0.784	
GCS2				0.849	

GCS3	0.727	
GCS4	0.738	
GCL1		0.744
GCL2		0.825
GCL3		0.806
GCL4		0.854
Extraction Method: Principal Component Analysis.		
Rotation Method: Varimax with Kaiser Normalization.		
Rotation converged in 6 iterations.		

Table 2 shows that a sufficient sample size was determined using Bartlett's test of sphericity (χ^2 = 3183.750; df = 190, p < 0.000). The KMO value was 0.774. A total of 67.453% of the variation was explained by five components that were retrieved. The associated factor was assigned to the scale item with a factor loading greater than 0.5. GPV5, GPR5, SMI4, GCS5, and GCL5 were removed from the scale due to low factor loadings of less than 0.5. This facilitates additional measurements and analysis using structural models.

Confirmatory Factor Analysis
Confirmatory Factor Analysis (CFA) was used to assess the validity and reliability of the latent factor used to estimate the green marketing mix, satisfaction, and consumer loyalty. The findings of this model were satisfactory, CMIN/DF = 3.285, GFI =.886, CFI =.890, RMSEA =.082, RMR =.033(Anderson & Gerbing, 1998; Chou & Bentler, 2002). Convergent and discriminant validity were examined to verify validity. According to Chou and Bentler (2002) and Fornell and Larcker (1981), the average variance explained (AVE) value must first exceed the cut-off value of 0.5. Second, the average shared variance (ASV) and maximum shared variance (MSV) should be less than the AVE value.

Table 3. Validity of the Model

Construct	CR	AVE	MSV	MaxR(H)	GPV	GPR	SMI	GCS	GCL
GPV	0.851	0.590	0.352	0.866	**0.768**				
GPR	0.831	0.559	0.297	0.876	0.350	**0.748**			
SMI	0.850	0.588	0.352	0.857	0.593	0.545	**0.767**		
GCS	0.778	0.549	0.042	0.886	0.177	0.076	0.118	**0.741**	
GCL	0.829	0.550	0.042	0.847	0.062	0.012	0.020	0.205	**0.742**

Table 3 shows that the AVE for every construct is more than 0.5. AVE is greater than MSV and ASV for each latent variable. This led to the validation of the measurement model's discriminant validity. Convergent validity is next in line of need. This requires that the construct reliability (CR) value be larger than AVE and above 0.7. According to Table 2, all of the latent variables have CR values larger than 0.70 and CR values greater than AVE values. It was for this reason that the validity of convergence was confirmed.
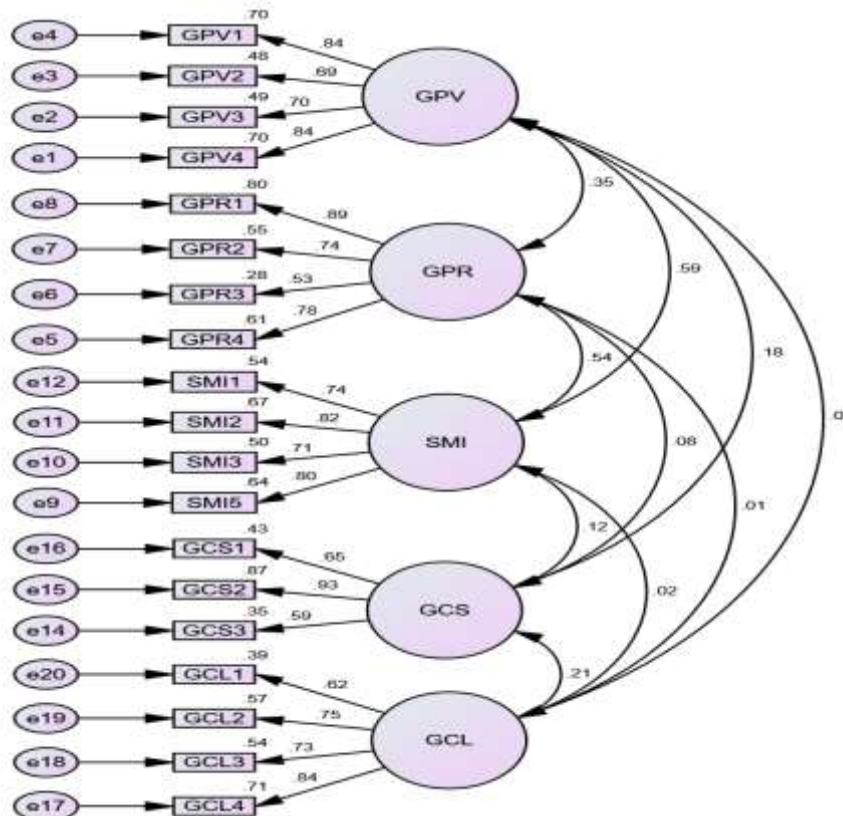

Figure 2. Measurement Model

Structural Equation Modeling

Structural Equation Modeling (SEM) is the next analytical step after confirming the measurement model's validity and reliability in CFA. In Figure 3, the structural equation model is displayed.
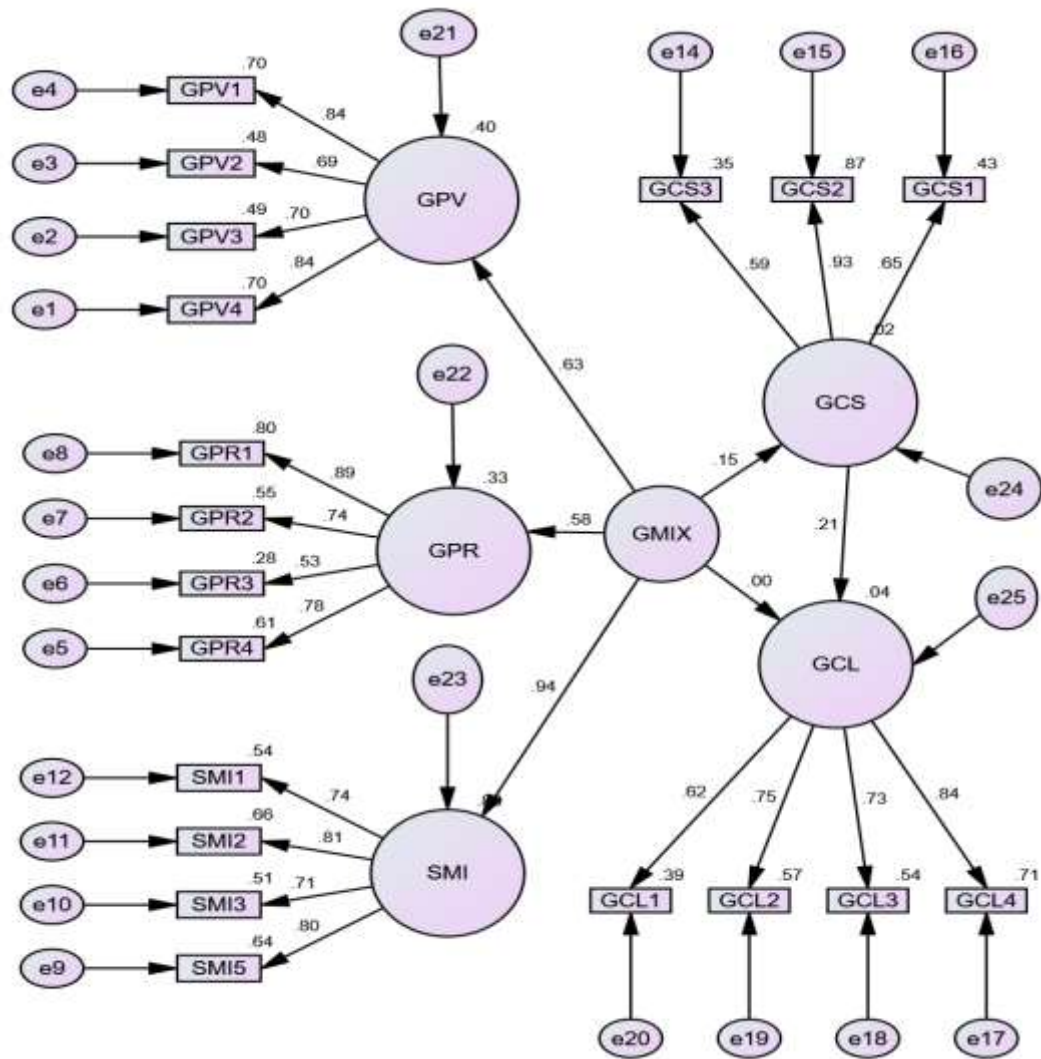

Figure 3. Structural Equation Model

The variation explained by the structural model was used to assess the model's efficacy. Moreover, AMOS generates P values for the model's overall fit statistics and estimates of regression weights across parameters in the SEM, including dependent, independent, and mediating components.

Hypothesis Testing

Table 4. Standardized Regression for Hypothesis Testing

Hypotheses	Description of Constructs			Standard Estimate	P-Values	Remarks
H_1	GPV	<---	GMIX	0.633	0.031	Supported
H_2	GPR	<---	GMIX	0.576	0.033	Supported
H_3	SMI	<---	GMIX	0.938	0.039	Supported
H_4	GCS	<---	GMIX	0.146	0.001	Supported
H_5	GCL	<---	GMIX	0.002	0.974	Not Supported
H_6	GCL	<---	GCS	0.205	0.002	Supported

Table 4 explains that the regression coefficients for green product value, price, and social media information were significant for the green marketing mix. So, H_1, H_2, and H_3 were supported. The result also explains the mediating effect of green customer satisfaction on the relationship between the green marketing mix and customer loyalty. According to the research's findings, the regression coefficient elements of the green marketing mix have a favorable impact on green customer satisfaction but a negligible impact on green customer loyalty. So, H_4 was significantly associated, but H_5 was not supported. However, green satisfaction has a favourable influence on green customer loyalty. Therefore, H_6 was significantly associated.

DISCUSSIONS

All stakeholders now place a greater emphasis on "green" concerns due to growing stakeholder demand to protect the environment, tighter regulations, and growing public sensitivity (Baral et al., 2020; Kwayu et al., 2021; Nguyen-Viet, 2023; Panizzut et al., 2021; Shrestha, 2018). Green marketing is an emerging concept of marketing (Kotler, 2011). It is characterized as an integrated, holistic approach that continuously reassesses how businesses can meet customer requests, meet green business objectives, and minimize long-term ecological harm (Nguyen-Viet, 2023).

The research revealed that green product value, price, and social media information have a significant influence on the green mix. The research also found that a green marketing mix has a significant effect on green customer satisfaction but is insignificant on green customer loyalty. Chang and Fong (2010) also reported that green product quality is positively associated with green customer satisfaction. Therefore, green manufacturers must consider practical green ideas for their product features to increase product value and price and provide timely information through widely accepted social media platforms. However, Novela et al. (2018) found that green prices and social media information had no significant impact on customer satisfaction. Kushwaha and Agrawal (2015) stated that green prices and products had no significant influence on customer satisfaction but were more crucial than people, physical evidence, and process.

The study also reported a mediating significant influence of green customer satisfaction on green customer loyalty. Nguyen et al. (2025) also noted that eco-friendly materials are beneficial in promoting sustainable ideals and enhancing consumer trust. Stronger brand connections, perceived quality, and customer satisfaction can build loyalty. It is possible through a consumer-centric marketing approach that emphasizes transparency and concrete sustainability initiatives. This can increase customer commitment and lifetime value (Yasari et al., 2025). Novela et al. (2018) reported that the green marketing components, such as people and physical evidence factors, were significantly related to customer satisfaction, while product, price, promotion, people, and physical evidence were not significantly related to them or only partially related. This study presents the theoretical and practical strategies and tactics that businesses and governments in developing nations employ to effectively utilize green marketing components, including green products, pricing, and social media promotion, thereby increasing customer satisfaction and loyalty.

CONCLUSIONS

The green marketing mix is more than simply an environmentally friendly marketing tool and technique. It is a holistic strategy that directly boosts customer satisfaction and loyalty through responsible product value, pricing, and promotion mix. Customers who have great experiences and share environmental values are more likely to remain loyal. Thus, satisfaction becomes a key component in building loyalty in a market where sustainability is becoming an increasingly important concern. This research focuses on green marketing mix issues related to green satisfaction and loyalty. Therefore, the study aims to address research questions on the impact of the green marketing mix on client satisfaction and its influence on green loyalty.

Green products are a vital component of the global effort to protect the environment and utilize natural resources sustainably. These strategies include energy conservation, recycling, and the use of natural and eco-friendly production methods. The study's findings supported the notion that some aspects of the value of green products, including price and social media, significantly impacted the green marketing mix. A significant positive relationship exists between the green marketing mix, which encompasses the value of green products, prices, and social media information, and customer satisfaction and loyalty. This finding is corroborated by earlier studies that have shown the green marketing mix to have a significant influence on green purchase intention, attitude, satisfaction, and loyalty (Ishaswini & Datta, 2011; Novela et al., 2018; Panahi et al., 2014). However, the green mix has a significant influence on customer satisfaction but is insignificant in terms of loyalty.

The advantages and effects of a green marketing mix take time to manifest and are not always evident. Therefore, a long-term or strategic plan is necessary for a green business rather than a short-term one. The green manufacturer should carefully manage their activities to avoid turning to immoral means of profit-making. Therefore, businesses must incorporate sustainable components and change their emphasis from being motivated to being responsible. The study only included the green product value, pricing, and social media information as the most important elements to represent the green marketing mix. However, due to limited time, other secondary marketing mixes, such as people, processes, and physical evidence, were avoided. Further study might be beneficial in examining the influence of secondary components of green marketing on customer satisfaction and loyalty.

The study's implications highlight the importance of strategically incorporating sustainability into social media content and the value of green products. Aligning their green marketing mix practices with consumers' environmental ideals, particularly through the incorporation of ethical product attributes, accessible pricing, and engaging social media promotions, can help green firms increase customer satisfaction and loyalty. This study offers new insights into the context of sustainable development by identifying green pleasure as a crucial element influencing consumer loyalty.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.
Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to restrictions.
Conflicts of Interest: The authors declare no conflict of interest.

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