Green Marketing Magic: Fostering Lasting Brand Loyalty on Social Commerce Platform

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Abstract: Brand loyalty is essential for long-term business success in today's mercilessly competitive economy. Businesses are increasingly using "green marketing" tactics to differentiate themselves and build relationships with environmentally conscientious customers in this competitive industry. This study intends to investigate the effect that green marketing strategies have on brand loyalty on social commerce brand pages. The participants in this study were Facebook users who made purchases using the platform's social commerce features. A standardised online questionnaire was used for the survey. A sampling method known as convenience sampling was utilised, and survey links were distributed across a range of pages and groups on Facebook in order to reduce the likelihood of bias. The research objectives were made explicit to participants, and a screening question was used to ensure a representative sample. The results of this investigation highlight the importance of perceived value and quality as powerful mediators associated with the relationship between green marketing and brand loyalty. On the other hand, it was discovered that Brand Attitude and Consumer Trust marginally but significantly mediate the connection between Green Marketing and Brand Loyalty. The social commerce platforms offer a flexible setting for showcasing a wide range of items and services. Innovative and engaging methods of showcasing eco-friendly items, such as 360-degree product views, virtual try-ons, or immersive storytelling, can improve consumers' perceptions of the product's value and quality. This approach shows potential, especially with environmentally sensitive consumers who frequently look for in-depth information and first-hand interaction when making decisions. While previous studies have shed light on the association between green marketing and brand loyalty, this research paper contributes to the field by investigating the mechanisms and mediating elements that contribute to this connection in the ever-changing world of social commerce.

Keywords: Green Marketing, Brand Loyalty, Social commerce, Perceived Value, Perceived Quality

1. INTRODUCTION

In today's highly competitive marketplace, individuals' loyalty to a particular brand plays an essential part in the success and longevity of business entities. Sustainable business success relies heavily on building and maintaining brand loyalty, which is "the extent to which consumers feel attached to and committed to a particular brand" [1]. Profitability is driven by repeat customers who advocate for the brand, persuading potential new customers to buy. Establishing and preserving customer loyalty has become an increasingly challenging process, which has prompted the development of effective strategies by companies to compete successfully in the marketplace [2]. Recent years have seen "green marketing" emerge as a powerful strategy for businesses looking to differentiate themselves from the competition and foster ties with environmentally conscious consumers. Green marketing strategies, which include things like eco-labelling, eco-packaging, and supporting sustainable production techniques, can significantly impact how consumers feel about a brand [3]. Firms that highlight sustainable activities, promote eco-friendly products, and communicate their commitment to environmental responsibility can meet consumers' concerns for the world. For companies to thrive in today's environmentally conscious marketplace, they need a thorough understanding of green marketing and its ability to foster brand loyalty among consumers [4]. This research aims to investigate how green marketing on social commerce brand pages affects loyalty among consumers.

Sustainable marketing, often called environmental marketing or green marketing [5], entails thinking about the environment when developing a marketing plan and communicating with individuals. As sustainability becomes a global concern, individuals are progressively looking for brands that align with their environmental beliefs and demonstrate a commitment to protecting the environment. Green marketing activities give a channel for organizations to establish themselves in the market as socially responsible, eco-friendly, and environmentally concerned. Not only can brands attract environmentally conscientious individuals, but they can also create long-term brand loyalty by using green marketing strategies. Social media platforms, in particular, have emerged as influential avenues for brand communication and engagement and for managing customer relationships [6].

Concurrently, the proliferation of social commerce platforms has brought about an unprecedented shift in the ways in which customers engage with brands and decide what products to buy [7]. These platforms' popularity and use, combining e-commerce capabilities with social networking elements, have skyrocketed in recent years. Brands have their place on social commerce platforms as a "brand store/page" where they may promote their wares, interact with customers, forge lasting bonds with them and sell their products/services. These platforms provides a one-of-a-kind chance for organisations to shed light on their green marketing initiatives, engage with environmentally sensitive individuals, and potentially create brand loyalty. Green marketing has been shown to have a favourable effect on several customer behaviours [8–10], such as perceived quality, perceived price, brand image, green trust, green attitudinal loyalty, and brand loyalty.

However, research into the connection between green marketing on the brand page of social commerce platforms and brand loyalty is still in its infancy. In an effort to close this knowledge gap, this study explores how green marketing strategies implemented via the brand page on social commerce platforms affect customer loyalty toward these brands. Also, there is still a lack of knowledge on the mechanisms and mediating elements (like Perceived corporate social responsibility, Brand Attitude, Perceived Value, Perceived Quality, Consumer Trust, Environmental Concern) that affect the degree to which green marketing is associated with brand loyalty in online marketplaces. This research attempts to shed light on how green marketing strategies affect consumer loyalty by examining the brand page on social commerce platforms. By evaluating the many interrelated contributing elements, this study will improve our understanding of how green marketing strategies affect loyalty on social commerce platforms. By examining the mediating role played by the aforementioned factors, this study aspires to give valuable insights to marketers and practitioners, allowing them to engage environmentally concerned consumers better and cultivate brand loyalty in the age of social commerce platforms.

1.2. LITERATURE

1.2.1. Green Marketing (GrMa)

The term "*green marketing*" refers to a promotional strategy that highlights the positive effects of a good or service on the surrounding ecosystem by utilizing a variety of marketing channels [9]. Reducing packaging, employing recycled materials, and contributing a portion of revenues to environmental causes are all examples of green business practices. A customer's propensity to stick with one brand over another in terms of repeated purchases defines brand loyalty [11]. It is frequently seen as a measurement of a consumer's level of trust and satisfaction in a business. Green marketing has the potential to increase brand loyalty for a variety of reasons. To begin, eco-conscious shoppers are more likely to stick with brands they view favourably when it comes to protecting the planet. Second, confidence in and positive associations with a brand are significant drivers of repeat business, and they can be strengthened through eco-friendly advertising strategies. Finally, green marketing can increase consumer commitment to a business by making them feel like they're part of something bigger. Several studies have examined how green marketing might boost customer loyalty to a particular company. Green marketing, for instance, has been shown to improve brand loyalty because of its beneficial effects on consumer perceptions of a company's ethics and values. The favourable impact of green image on customer satisfaction leading to greater brand loyalty [12]. Some studies have been conducted, but overall, our understanding of how green marketing affects brand loyalty is lacking in the context of social commerce platforms. The above discussion has led to the conjecture that:

H1: Through the use of the social commerce platform, green marketing has a beneficial impact on brand loyalty.

1.2.2. Perceived Corporate Social Responsibility (PCSR)

PCSR, refers to how customers view a business's commitment to social responsibility [13]. It considers the company's social responsibility-related actions, policies, and public statements. Green marketing has the potential to benefit all parties involved, including businesses, local communities, and the natural environment. Companies can improve their bottom lines and the world by including green marketing in their overall marketing strategy and CSR initiative [14]. The term "green marketing" refers to a type of strategic advertising that highlights the positive effects of a product or service on the natural world. Brands with a good reputation for corporate social responsibility

(CSR) tend to attract and retain customers with strong CSR convictions [15]. CSR initiatives are more than just an added expense for companies. They can also be used to gain an edge over the competition. There is mounting evidence that CSR can boost customer satisfaction and loyalty [13]. The previous research has shown that corporate social responsibility acts as a mediator between a company's ethical standards and consumer brand loyalty. In the area of social commerce, it has not been looked at how CSR functions as a mediator between green marketing and consumer brand loyalty. The following hypothesis statement is offered in light of the foregoing:

H2a: Through the use of the social commerce platform, green marketing has a favourable effect on Perceived corporate social responsibility (PCSR).

H2b: Through the medium of social commerce, perceived corporate social responsibility (PCSR) has a beneficial impact on brand loyalty.

H2c: Through the medium of social commerce, perceived corporate social responsibility (PCSR) acts as a mediator in the interaction between environmentally conscious marketing and brand loyalty.

1.2.3. Brand Attitude (BrAt)

Customers' attention to environmental issues has risen dramatically in recent years. There is a rising demand for sustainable and environmentally friendly products and brands as consumers become more conscientious of the effects of their consumption habits on the planet [16]. Marketers can capitalise on the changing preferences of consumers by focusing on the growing interest in environmentally friendly products. Brands embracing a green approach and emphasising their commitment to environmental responsibility stand out from the crowd. Brands may attract consumers who care about the environment and get an edge by adopting eco-friendly packaging, branding, and other business strategies. Brands without "green" features may struggle to succeed in the marketplace. Brands can impact consumer attitudes toward environmentally friendly products and generate positive behaviour change by effectively promoting their green activities [16]. Green attitudinal loyalty mediate the interaction between green marketing strategies and green word of mouth [9]. Brand attitude has demonstrated direct positive affect on brand loyalty [17]. There are a variety of outcomes that can be attributed to the mediating function of brand attitude. According to research by [18], brand attitude mediates the relationship between Risk, behavioural characteristics, price value and loyalty. There is a dearth of studies that investigate how brand attitude influences the relationship between green marketing and brand loyalty on the social commerce platform. The following hypothesis is put forward to fill up this knowledge gap:

H3a: Through the use of the social commerce platform, green marketing has a beneficial impact on the attitude of the brand.

H3b: Through the medium of social commerce, a consumer's attitude toward a brand has a positive impact on their loyalty to that brand.

H3c: Through the use of social commerce platforms, the relationship between green marketing and loyalty is mediated by the company's brand attitude.

1.2.4. Perceived Value (PeVa)

An essential concept in the study of consumer behaviour is perceived value, which relates to the consumer's evaluation of the overall value or utility they anticipate deriving from a good or service [19]. It includes the product's price, functionality, user pleasure, and the perceived benefits and compromises connected with those factors. Perceived value is a powerful predictor of a variety of customer-related outcomes, including satisfaction [20] , desire to adopt FinTech [19] and behaviour during a dining experience [21]. Previous research has examined the connections between green marketing, brand loyalty, and consumers' perceptions of value. Customers are drawn to green products because they see the value in switching from conventional to environmentally friendly options. According to [8], consumers who care about the environment are more likely to purchase "green" items because they believe those products provide higher safety and environmental protection. The primary driver of their increased value is the potential of environmentally friendly products to alleviate concerns about the natural world

and positively contribute to sustainable business practices. Green marketing initiatives help consumers perceive value more highly, and this increased perception of value concerning environmental issues has a positive impact on consumers' trust, purchasing behaviour, and intentions [22]. The perceived value that the green products and brands provide customers is one of the most critical factors in determining their attitudes and behaviours concerning those products and brands. It directly and indirectly, influences green loyalty, with the former occurring via green satisfaction and the latter occurring via green trust [23]. According to [24] research, among the most significant variables determining a customer's propensity to remain loyal to a brand is their perception of the product or service's value. Despite the wealth of literature on perceived value, its potential as a bridge between green marketing and loyalty on the social commerce platform has not been thoroughly investigated. This research aims to fill this void by testing the following hypotheses:

H4a: Through the use of the social commerce platform, green marketing has a beneficial impact on the Perceived value.

H4b: Through the medium of social commerce, perceived value toward a brand has a positive impact on their loyalty to that brand.

H4c: Through the use of social commerce platforms, the relationship between green marketing and loyalty is mediated by the company's perceived value.

1.2.5. Perceived Quality (PeQu)

A strategic marketing approach that considers environmental concerns throughout the marketing process is known as "green marketing." According to [25], the definition of *perceived quality* is the consumer's impression of the overall superiority of a product or service based on the ability of the product or service to fulfil the consumer's expectations. Because it can assist in shaping the decisions that customers make, green marketing is an essential component of quality perception. The fact that green products are more likely to be created using recycled materials, consume less energy, and have a more negligible impact on the environment than traditional items lend credence to the notion that green products have a higher quality overall. Purchasing environmentally friendly goods and services is becoming an increasingly popular interest among consumers. This is probably attributable to the fact that environmentally friendly items are often manufactured using recycled materials or materials that are less detrimental to the natural environment. Individuals can feel more confident using them because they contain less potentially dangerous chemicals and pollutants. The relationship between brand experience and client loyalty is significantly influenced by perceived quality. Based on their research, [26] concluded that customers' perceptions of the quality of a product or service have a moderating role in the connection between positive brand experiences and continued loyalty. Customers' positive or negative impressions of a brand's quality of service can significantly impact their loyalty to that brand. The image of a store is greatly influenced by how customers perceive the quality of the products. The store's image also impacts the customers' opinions of the value of the products and the level of satisfaction they receive. Based on their research, [25] concluded that brand loyalty is highest when client satisfaction is coupled with an appreciation for a product's perceived quality. According to the findings of a previous study conducted by [27], customers have higher faith in the quality of environmentally friendly goods and services, and as a result, they are more likely to acquire those goods and services.

H5a: Through the use of the social commerce platform, green marketing has a beneficial impact on the perceived quality.

H5b: Through the medium of social commerce, perceived quality toward a brand has a positive impact on their loyalty to that brand.

H5c: Through the use of social commerce platforms, the relationship between green marketing and loyalty is mediated by the company's perceived quality.

1.2.6. Consumer Trust (CoTr)

An individual's trust in a brand indicates that that individual has faith in the brand's communication and believes it will fulfill its promises [9]. Establishing and sustaining trust between a brand and its customers is crucial to the success of any business seeking to attract and retain loyal customers. The impact of green marketing on consumer trust and the concept of customer trust in relation to brand loyalty have only been scratched at in the existing literature. The public's growing awareness of environmental issues has contributed to the meteoric rise of green buying. Companies are implementing green marketing techniques to meet customer requests [28]. Researchers have found that customers' ability to understand green marketing messages significantly impacts their subsequent purchasing decisions [9]. Environmental advertising, eco-labelling, and eco-branding are all examples of green marketing tactics that have been shown to increase consumer trust and lead them to buy more environmentally friendly products [29]. By highlighting the benefits of eco-friendly consumption, campaigns like these help customers feel more confident in their choice to buy green. With a solid foundation of trust, businesses can build lasting relationships with their customers and keep them loyal to the brand [30]. In brick-and-mortar stores and modern e-commerce, especially business-to-consumer (C2C) exchanges, trust has long been pivotal in determining customer retention and loyalty [31]. Trust and customer loyalty have been shown to go hand in hand in several empirical investigations, underscoring the importance of each [32]. Since no human interaction or other tangible elements are present in online shopping, trust in the underlying system becomes even more critical. Consumers place a great deal of faith in digital platforms and interactions, highlighting the significance of trust in cultivating loyalty among this demographic. It is, therefore, crucial to examine the influence green marketing has on trust and, consequently, brand loyalty, among consumers using the social commerce platform. To fill this void, the following hypotheses are put forth.

H6a: Through the use of the social commerce platform, green marketing has a beneficial impact on the consumer trust.

H6b: Through the medium of social commerce, consumer trust toward a brand has a positive impact on their loyalty to that brand.

H6c: Through the use of social commerce platforms, the relationship between green marketing and loyalty is mediated by the trust.

1.2.7. Environmental Concern (EnCo)

Individuals who are ecologically concerned are those who are cognizant of their environmental impact and are motivated to take action to mitigate that impact [33]. It significantly influences how people feel about environmental responsibility and how they act in their daily lives. It reveals how people feel about environmental problems, how they see those problems, and whether or not they are willing to take steps to solve those problems. There is evidence from several studies that customers' green purchasing habits are positively correlated with environmental concerns [34]. Green purchasing decisions and a preference for eco-friendly products and services are more common among environmentally conscious consumers [35]. Consumers concerned about the environment are likelier to seek out and purchase items from companies that share their belief. Their sincere dedication to environmental problems informs their buying habits, increasing the demand for environmentally friendly items. Additionally, consumers with higher levels of environmental awareness have been shown to prefer returning to businesses that engage in environmentally friendly operations [36]. This propensity for returning customers is evidence of environmental consciousness's favourable effect on brand loyalty. In the social commerce platform context, it is crucial to grasp the connection between green marketing, environmental concern, and loyalty. Taking into account the current research, we have come up with the following hypothesis:

H7a: Through the use of the social commerce platform, green marketing has a beneficial impact on the environmental concern.

H7b: Through the social commerce platform, a concern for the environment has a beneficial impact on loyalty to that brand.

H7c: Through the use of social commerce platforms, the relationship between green marketing and loyalty is mediated by the environmental concern.
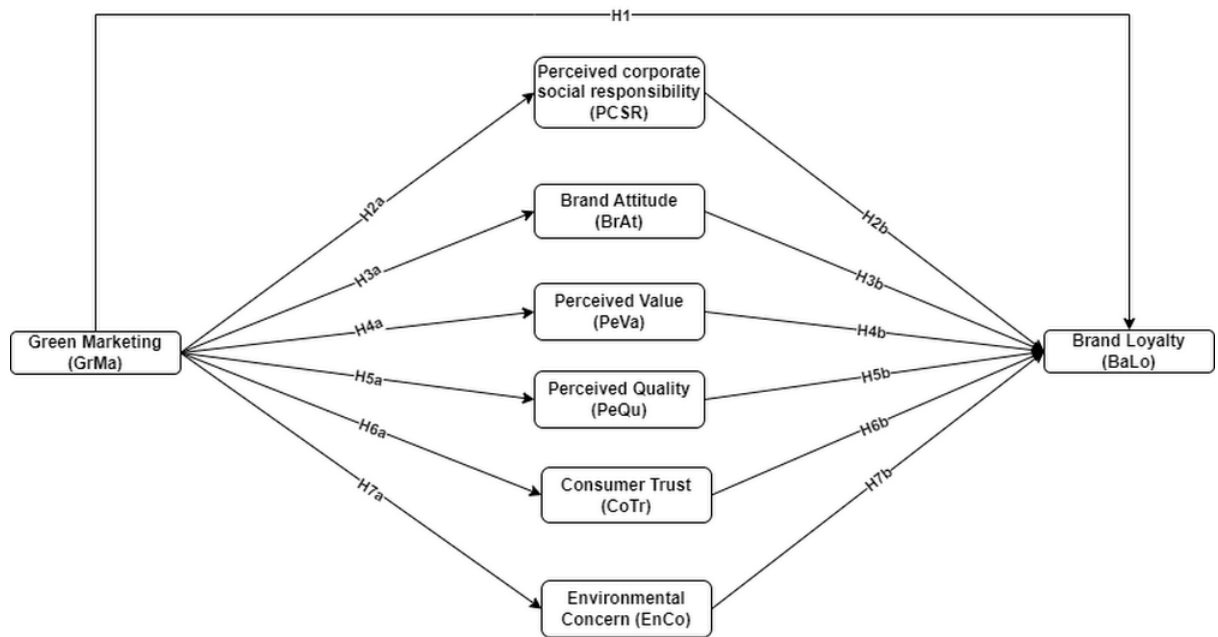

Figure 1: Conceptual Model

Source*: The Author' Creation*

2. MATERIALS AND METHODS

2.1. Scale Development

The survey instrument used in this study showed careful design and precision, which is consistent with the expectations of high-quality research. It has been carefully constructed with three distinct parts in order to glean the most relevant information possible. Our study's intended participants are recent users of social commerce, therefore we started with a series of validation questions to make sure that our respondents fit that profile. In the second portion, we were able to capture the subtleties in our participants' demographics, which enriched our overall study. The third component, which was the essence of our instrument, was a set of statements that were meticulously selected to accurately depict the complex ideas that drove our study. Our respondents carefully examined these items and provided input on a Likert scale from 1 to 7. With each increment on this scale, the respondent demonstrated a more nuanced understanding of the carefully designed phrases. Scales used here were based on those used in earlier works; they were expertly adapted to fit the specific needs of our research, and they were tailored to the ever-changing world of social commerce. The Green Marketing and Consumer Trust scale was adopted from [9], the Brand loyalty scale was adopted from [11], Perceived corporate social responsibility scale was adopted from [37], Brand Attitude scale was adopted from [16], Perceived Value scale was adopted from [19], Perceived Quality scale was adopted from [25], Environmental Concern scale was adopted from [33].

2.2. Sample and Data Collection

Individuals who have made purchases on Facebook, either through the Facebook marketplace or through brand/community pages, were the primary focus of the research. As the most widely used social networking site, Facebook naturally serves as a hub for social commerce initiatives due to its abundance of user-friendly interaction tools and content creation features (Smith, Anderson, & Duggan, 2013). Through the use of an online survey with a standardized questionnaire, data were collected in India between the months of June and July 2023. The survey used convenience sampling, and the possibility of bias was reduced by having the link posted on

numerous Facebook groups and pages. An invitation to take part in the study and a brief explanation of its goals were provided to participants before they were asked to fill out the questionnaire. Participants checked a box indicating their agreement to participate after being given detailed information about the study. To guarantee that only members of the intended sample were included, a screening question was used to weed out potential participants. Users familiar with social shopping platforms were then asked to complete the survey. The questionnaire asked about demographic information in addition to the study model's metrics. At the end of the survey, participants were prompted to invite their friends and colleagues with social commerce experience to participate in the study. There were a total of 612 appropriate questions that were taken into consideration. Most respondents (53.59%) were women, and nearly half (44.12%) visited social shopping platforms regularly or nearly every day.

3. RESULTS

3.1. Measurement Model

We conducted EFA as well as CFA, keeping to the highest possible levels of methodological rigour, in order to investigate the offered hypotheses in a methodologically sound manner. The measurement model is robust and complete since EFA methodically found and validated all eight recommended constructs.

Table 1: Factor loadings, CR and AVE

Factor	Indicator	Factor loadings	CR	AVE
Green Marketing (GrMa)	GrMa1	0.832	0.843	0.575
	GrMa2	0.759		
	GrMa3	0.723		
	GrMa4	0.713		
Brand Loyalty (BaLo)	BaLo1	0.823	0.865	0.681
	BaLo2	0.809		
	BaLo3	0.843		
Perceived corporate social responsibility (PCSR)	PCSR1	0.745	0.882	0.556
	PCSR2	0.712		
	PCSR3	0.737		
	PCSR4	0.737		
	PCSR5	0.757		
	PCSR6	0.784		
Brand Attitude (BrAt)	BrAt1	0.734	0.829	0.548
	BrAt2	0.712		
	BrAt3	0.786		
	BrAt4	0.727		
Perceived Value (PeVa)	PeVa1	0.753	0.827	0.544
	PeVa2	0.729		
	PeVa3	0.726		
	PeVa4	0.743		
Perceived Quality (PeQu)	PeQu1	0.723	0.836	0.561
	PeQu2	0.749		
	PeQu3	0.722		
	PeQu4	0.800		
Consumer Trust (CoTr)	CoTr1	0.733	0.789	0.555
	CoTr2	0.764		
	CoTr3	0.738		
Environmental Concern (EnCo)	EnCo1	0.821	0.806	0.582
	EnCo2	0.748		

| | | EnCo3 | 0.716 | |

On the basis of this foundation, we rigorously tested our hypotheses using AMOS. Table 1 displays the findings of a CFA, which overwhelmingly prove the superiority and validity of our model. The fact that all factor loadings were higher than the minimally needed level is remarkable and confirms the strength and importance of the associations between the latent constructs. The results of the CFA are shown in Table 1, where it can be seen that all factor loadings are over the minimum acceptable value.

Table 2 : Discriminant validity

Constructs	PCSR	EnCo	CoTr	PeVa	PeQu	GrMa	BaLo	BrAt
PCSR	**0.746**							
EnCo	0.143	**0.763**						
CoTr	0.146	0.072	**0.745**					
PeVa	0.245	0.128	0.172	**0.738**				
PeQu	0.150	0.139	0.178	0.233	**0.749**			
GrMa	0.256	0.182	0.399	0.401	0.363	**0.758**		
BaLo	0.221	0.175	0.420	0.591	0.514	0.471	**0.825**	
BrAt	0.078	0.100	0.225	0.104	0.111	0.249	0.304	**0.740**

Cronbach's alpha coefficients also showed good internal consistency, exceeding the 0.70 threshold typically used to indicate reliability [38]. AVE values are higher than the required threshold of 0.50 (Table 1), showing that the model passed convergent and discriminant validity tests. Discriminant validity (Table 2) was also confirmed by the squared AVE values being higher than the correlations between the individual paired constructs (Fornell & Larcker, 1981).

3.2. Structural Model

The purpose of evaluating the structural model was to ascertain the importance of the hypothesised links and the predictive value of the suggested model. A bootstrapping approach with 5,000 subsamples was carried out to evaluate the significance of the coefficient trajectories [39]. Most of the model hypotheses were validated except for H1, H2b, and H7b, as shown in Table 3. The bootstrapping analysis conducted here supported most of the hypothesised associations in the structural model. As a result, hypotheses 2a, 3a, 4a, 5a, 6a, and 7a about the connections between Green Marketing and perceptions of corporate social responsibility, brand attitude, value, quality, trust, and environmental concern were all confirmed [14,22]. These results provide credence to the idea that Green Marketing campaigns have a beneficial effect on several dimensions relevant to consumers. Strong correlations indicate a positive impact on consumer behaviour when brands prioritise green and openly discuss their environmental initiatives. However, it should be noted that the analysis did not support three of the hypotheses. Statistical evidence did not support H1, which hypothesised that Green Marketing had a direct impact on Brand Loyalty [40]. Also lacking statistical significance were the hypotheses (H2b) that Perceived Corporate Social Responsibility has a direct effect on Brand Loyalty [41] and (H7b) that Environmental Concern has a direct effect on Brand Loyalty [42]. These findings, which were not statistically significant, suggest that the relationships may not be valid in the particular setting of social commerce; hence, additional research is required to delve deeper into the topic.
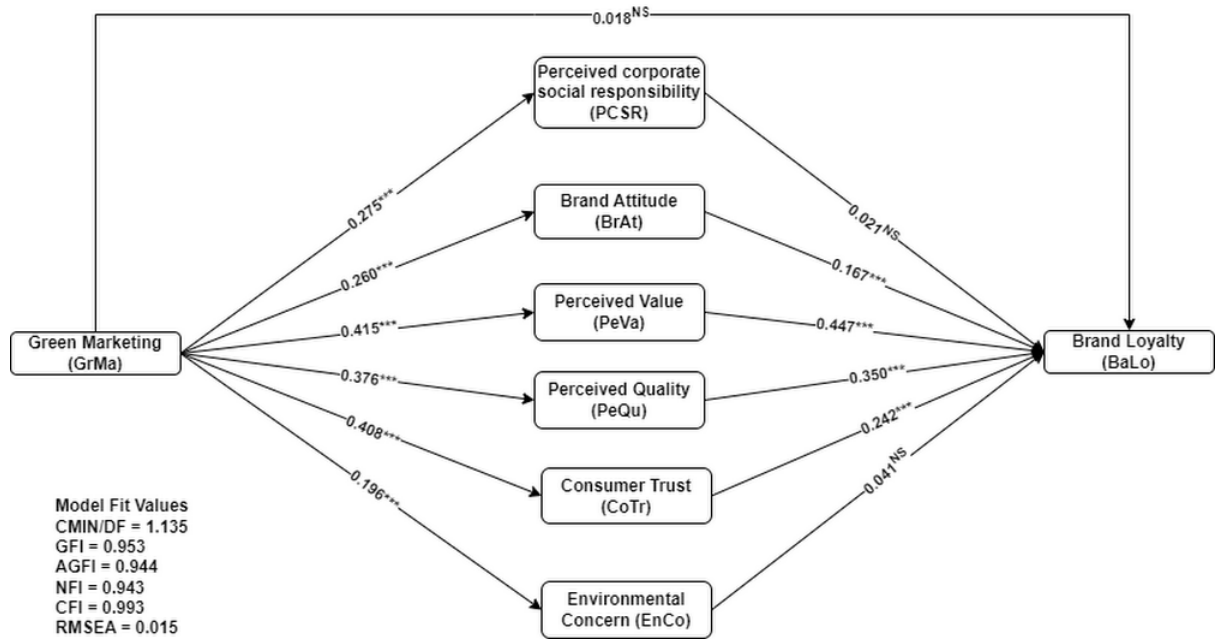
Figure 2: SEM- Results

Source: The Authors' Creation

3.3. Mediation

This study aimed to investigate the effect of several different variables on the relationship between green marketing and brand loyalty in the environment of social marketplaces. Mediating effect analysis was conducted using Andrew F. Hayes's PROCESS Procedure for SPSS. Four of the indirect relationships were found to be statistically significant, suggesting that these factors are crucial in mediating green marketing's effect on brand loyalty.

Interestingly, the study indicated that green marketing had no impact on brand loyalty directly, indicating that the primary effect of green marketing on brand loyalty was exerted through the mediating variables. Standardised coefficients (β) of 0.2355 and 0.1628 were found for H4c (Perceived Value) and H5c (Perceived Quality), respectively, among the critical mediating variables. H4c and H5c made sizable contributions to the link between green marketing and brand loyalty, with VAF values of 43% and 30%, respectively. The VAF values for H3c (Brand Attitude) and H6c (Consumer Trust) were 10% and 23%, respectively, indicating low to moderate influences. Although they mediate the connection, the impacts of these variables are much smaller than those of Perceived Value and Perceived Quality.

Table 3 : Results of the mediation effects

Total Effect	Direct Effect	Relationship	Indirect Effect	Confidence Interval		VAF	Impact	Conclusion
				Lower Bound	Upper Bound			
0.5497 (p = 0.000)	0.018 (p = 0.733)	H2c: GrMa -> PCSR -> BaLo	0.0035	-0.0106	0.018	1%	No Impact	Not Significant
		H3c: GrMa -> BrAt -> BaLo	0.0528	0.0346	0.0736	10%	Low Impact	Full Mediation
		H4c: GrMa -> PeVa -> BaLo	0.2355	0.1967	0.2765	43%	Moderate Impact	Full Mediation
		H5c: GrMa -> PeQu -> BaLo	0.1628	0.1309	0.1961	30%	Moderate Impact	Full Mediation

H6c: GrMa -> CoTr-> BaLo	0.1276	0.0991	0.1591	23%	Low to Moderate Impact	Full Mediation
H7c: GrMa -> EnCo -> BaLo	0.0091	-0.0008	0.0201	2%	No Impact	Not Significant

Note: GrMa=Green Marketing; BaLo=Brand Loyalty; PCSR=Perceived corporate social responsibility; BrAt=Brand Attitude; PeVa=Perceived Value; PeQu=Perceived Quality; CoTr=Consumer Trust; EnCo=Environmental Concern.

Source: Author's Computation

However, as shown by the non-significant p-values, the mediating effects predicted in H2c (Perceived Corporate Social Responsibility) and H7c (Environmental Concern) were insignificant. This indicates that these factors do not mitigate the association between green marketing and brand loyalty on a social commerce platform. When taken as a whole, the findings provide light on the intricacy of the relationship between green marketing and brand loyalty in the context of the digital marketplace. Perceived value and quality appear as crucial factors in influencing consumers' loyalty to a brand. These findings have substantial ramifications for marketers who want to increase brand loyalty through green marketing campaigns on social commerce platforms.

4. CONCLUSION

4.1. Discussion

The current research endeavoured to investigate the dynamic interaction between green marketing, numerous mediating elements, and brand loyalty within social commerce platforms. The rising importance of social commerce as a new marketplace and environmentally sensitive consumer behaviour prompted this investigation. Through the lens of green marketing, this research set out to identify the elements (such as perceived corporate social responsibility, brand attitude, perceived value, perceived quality, customer trust, and environmental concern) that most influence brand loyalty. The study's results provide light on how all of these elements interact with one another. Some hypotheses had solid empirical evidence, while others had little. The results of the tests of hypotheses on the impact of green marketing on CSR perception, brand attitude, perceived value, perceived quality, trust, and environmental concern were all in the affirmative [3,14,22,31,43]. It was also statistically confirmed that these mediators affected brand loyalty [7,38]. Consumers' perceptions of value and quality and their trust in a company were discovered to play critical roles in mediating the connection between green marketing and brand loyalty.

Surprisingly, some hypotheses did not receive statistical support from the data. This suggests that additional mediating factors may shape the relationship between green marketing and brand loyalty, as the lack of significance in the direct relationship between the two demonstrates. Furthermore, although green marketing had a considerable beneficial effect on perceived CSR, but CSR did not significantly affect brand loyalty [41]. These findings reflect a significant step forward in unravelling the tangled interplay between green marketing and consumer loyalty. By illuminating the roles played by various mediators in the relationship between green marketing initiatives and brand loyalty within the setting of social commerce platforms, this research contributes to the current literature. Nevertheless, it also highlights the requirement for additional research into the subtle mechanisms underpinning particular connections and characteristics that did not receive full support from the data.

These results are relevant to organisations and marketers who want to use green marketing methods to boost brand loyalty via social commerce platforms. Strategically catering to the tastes and concerns of environmentally concerned consumers requires businesses to recognise the significance of perceived value, quality, and trust. This research fills a critical void in the existing literature and paves the path for improved marketing techniques in the digital age.

4.2. Theoretical Implications

The findings of this research have considerable theoretical implications, and they provide a sizeable contribution to the canon of previous knowledge in the disciplines of green marketing, brand loyalty, and social

commerce. In the context of social commerce, one of the main contributions is a more nuanced comprehension of the mediating variables. The study not only confirms the previously documented relationships between concepts like green marketing and perceptions of quality, value, brand attitude, and consumer trust, but it also offers actual evidence for those connections in the unique setting of social commerce platforms.

Green marketing's direct effect on brand loyalty has been well-documented, but this study goes beyond to explore the indirect channels via which Perceived Value and Perceived Quality emerge as important mediators. Insight into the digital marketplace from this proficient vantage point provides a more robust theoretical foundation for the future. Furthermore, these findings provide fresh insights into the intricacy of these interactions within the context of social commerce, as there are no significant direct links between green marketing and brand loyalty [40], and no significant mediation influence of perceived corporate social responsibility and Environmental Concern [41,42]. In addition to highlighting the importance of green marketing and brand loyalty, this study provides a novel perspective on the role of other variables, such as perceived value, perceived quality, consumer trust, and environmental concern, as mediators in this nexus. These discoveries highlight the necessity for firms to adopt a green marketing strategy that is more comprehensive and multi-faceted, taking into consideration the delicate interplay that exists between these various constructions in social commerce platforms.

The findings of this study pave the way for future studies by encouraging researchers to look into other elements that may strengthen the mediating effect of perceived value and quality. It encourages investigations about the association between these notions and rising trends in sustainability, such as practices of a circular economy or ethical sourcing, which are all examples of themes that might be investigated further. This research has the potential to enliven the literature while also yielding useful takeaways for social commerce platforms competing in the green ecosystem. These findings lay the groundwork for the creation of predictive models that are more accurate when applied to the setting of social commerce for brand loyalty.

4.3. Managerial Implications

Acknowledging the significant influence of Perceived Value and Perceived Quality as intermediaries between Green Marketing and Brand Loyalty, organisations have the opportunity to strategically utilise these findings to augment their sustainability endeavours, create environmentally conscious products, establish effective communication channels with consumers, and ultimately fortify loyalty within the fiercely competitive realm of social commerce [44]. A company's focus on Perceived Value and Perceived Quality will pay off in increased Brand Loyalty. This entails guaranteeing that their products or services not only conform to green marketing efforts but also provide tangible value and quality to consumers. By continually surpassing expectations and providing items of exceptional quality and perceived value, businesses have the potential to cultivate heightened loyalty among their customer bases.

Social commerce platforms offer a dynamic environment for the demonstration of various products and services [45]. By prioritizing novel and engaging methods to showcase environmentally friendly items, such as including 360-degree product views, virtual try-ons, or immersive storytelling, it is possible to augment buyers' assessments of the worth and excellence of these products. This approach has the potential to yield significant results, especially among environmentally conscious consumers who frequently choose comprehensive information and firsthand experiences. Businesses need to effectively convey their green marketing activities and how these efforts contribute to perceived value and quality in their products and services. Sharing information openly on eco-friendly sourcing, sustainable production techniques, and relevant certifications and accolades is one way to demonstrate environmental responsibility [46]. This type of marketing helps consumers associate the company with more positive values like sustainability and affordability. Putting money into green product innovation can increase both the perceived value and quality of the product. Companies can attract more environmentally conscious customers by creating eco-friendly product lines or making existing items more sustainable. By taking this approach, the company will strengthen its brand loyalty and establish itself as an industry pioneer in environmentally friendly operations.

Businesses can educate consumers about the environmental benefits of their products through advertising and social commerce sites, raising awareness and increasing the demand for those items. Businesses can

magnify their impact on customer loyalty on social commerce platforms by cultivating a community of brand advocates who are willing to share their favourable experiences of green items in question [47]. This does wonders for establishing credibility and giving the brand a story that's genuine and approachable. Reviews, testimonials, and unboxing videos created by actual customers can have a major impact on how others regard a product's value and quality. Hence, their widespread distribution should be encouraged. Marketers should think about implementing hyper-personalized approaches. Companies can better connect with customers by emphasising the superior value and high quality of their green goods and services in carefully crafted marketing communications. By utilising data analytics and AI-driven recommendations, companies can determine precisely which components of their services resonate most strongly with specific clients, thereby improving the customers' impressions of both the value and the quality of the offerings.

The insightful insight provided by the study into the moderate mediation role of brand attitude and consumer trust in the relationship between green marketing and brand loyalty implies that companies operating in the social commerce arena should employ nuanced tactics in order to successfully harness the influence of these aspects. Maintaining healthy relationships with one's clientele is a crucial business practice. Companies have an opportunity to strengthen consumer trust and, as a result, brand loyalty if they provide personalised suggestions, responsive customer service, loyalty programs, or outstanding post-purchase follow-ups. Building trust also involves having meaningful conversations with customers about CSR and sustainability. Businesses should think about developing social commerce ecosystems where Green Marketing, Brand Attitude, and Consumer Trust are all inextricably connected. The brand's sustainability message and its actions must be in sync, and any efforts to increase consumer trust must be in keeping with the brand's established image. The influence of these components on brand loyalty may be amplified by an all-encompassing approach.

4.4. Limitations and Future Research

In spite of the fact that this study has made a sizeable contribution to our comprehension of the interactions that exist within the framework of social commerce, it is essential that we recognise the limitations of the study and identify possible directions for further investigation. First, although numerous important mediators were examined in this study, it is possible that other elements may have a role in mediating the connections between green marketing and brand loyalty. These additional mediators should be taken into account in future studies. Second, it's possible that the results of this study won't hold true in all social commerce settings, sectors, or cultures. Investigating the ways in which these associations can vary across a variety of contexts has the potential to produce useful insights for both scholars and practitioners. Third, using cross-sectional data, the study captures the dynamics at a single moment in time. In the ever-changing world of social commerce, longitudinal research may shed light on the nature and trajectory of these connections across time. Research in the future could also investigate the efficacy of a variety of additional tactics, such as eco-labelling, the role of anchor features, environmental certifications, cause-related marketing demographic factors, or other major moderating variables, in a variety of different social commerce scenarios. In addition, we could gain a deeper comprehension of these connections if we looked into the moderating influence of personal qualities like environmental awareness or brand loyalty history.

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REFERENCES

[1]   Uncles MD, Dowling GR, Hammond K. Customer loyalty and customer loyalty programs. J Consum Mark. 2003;20(4–5):294–316.

[2]   Larsson A, Viitaoja Y. Building customer loyalty in digital banking?: a study of bank staff's perspectives on the challenges of digital CRM and loyalty. Int J Bank Mark. 2017;35(6):858–77.

[3]   Nekmahmud M, Fekete-Farkas M. Why Not Green Marketing ? Determinates of Consumers ' Intention to Green Purchase Decision in a New Developing Nation. Sustainability. 2020;12(19):7880.

[4]   Ko E, Hwang YK, Kim EY. Green marketing' functions in building corporate image in the retail setting. J Bus Res [Internet]. 2013;66(10):1709–15. Available from: http://dx.doi.org/10.1016/j.jbusres.2012.11.007

[5]   Garg A. Green Marketing for Sustainable Development: An Industry Perspective. Sustain Dev. 2015;23(5):301–16.

[6] Dwivedi YK, Ismagilova E, Hughes DL, Carlson J, Filieri R, Jacobson J, et al. Setting the future of digital and social media marketing research: Perspectives and research propositions. Int J Inf Manage [Internet]. 2021;59(May 2020):102168. Available from: https://doi.org/10.1016/j.ijinfomgt.2020.102168

[7] Molinillo S, Aguilar-Illescas R, Anaya-Sánchez R, Liébana-Cabanillas F. Social commerce website design, perceived value and loyalty behavior intentions: The moderating roles of gender, age and frequency of use. J Retail Consum Serv. 2021;63(May).

[8] Wu SI, Chen YJ. The Impact of Green Marketing and Perceived Innovation on Purchase Intention for Green Products. Int J Mark Stud. 2014;6(5):81–100.

[9] Mele PM, Gomez JM, Garay L. To green or not to green: The influence of green marketing on consumer behaviour in the hotel industry. Sustain. 2019;11(17):1–17.

[10] Lin J, Lobo A, Leckie C. Green brand benefits and their influence on brand loyalty. Vol. 35, Marketing Intelligence and Planning. 2017. 425–440 p.

[11] Chen YS, Huang AF, Wang TY, Chen YR. Greenwash and green purchase behaviour: the mediation of green brand image and green brand loyalty. Total Qual Manag Bus Excell. 2020;31(1–2):194–209.

[12] Leaniz PMG de. Customer loyalty: Exploring its antecedents from a green marketing perspective. Int J Contemp Hosp Manag. 2015;27(5):896–917.

[13] Uslu A, Sengun HI. The multiple mediation roles of trust and satisfaction in the effect of perceived corporate social responsibility on loyalty. Business, Manag Econ Eng. 2021;19(1):49–69.

[14] Zhang M, The Cong P, Sanyal S, Suksatan W, Maneengam A, Murtaza N. Insights into rising environmental concern: prompt corporate social responsibility to mediate green marketing perspective. Econ Res Istraz [Internet]. 2022;35(1):5097–113. Available from: https://doi.org/10.1080/1331677X.2021.2021966

[15] Vera-Martinez J, Alvarado-Herrera A, Currás-Pérez R. Do Consumers Really Care about Aspects of Corporate Social Responsibility When Developing Attitudes toward a Brand? J Glob Mark [Internet]. 2022;35(3):193–207. Available from: https://doi.org/10.1080/08911762.2021.1958277

[16] Chen YS, Chang TW, Li HX, Chen YR. The influence of green brand affect on green purchase intentions: The mediation effects of green brand associations and green brand attitude. Int J Environ Res Public Health. 2020;17(11):1–17.

[17] Hwang J, Choe JY (Jacey), Kim HM, Kim JJ. Human baristas and robot baristas: How does brand experience affect brand satisfaction, brand attitude, brand attachment, and brand loyalty? Int J Hosp Manag [Internet]. 2021;99(June):103050. Available from: https://doi.org/10.1016/j.ijhm.2021.103050

[18] Cho YS, Rha HS, Burt S. The impact of customer awareness of manufacturer name disclosure on retail brand attitudes and loyalty in Korea. J Retail Consum Serv [Internet]. 2015;22:128–37. Available from: http://dx.doi.org/10.1016/j.jretconser.2014.10.008

[19] Xie J, Ye L, Huang W, Ye M. Understanding fintech platform adoption: Impacts of perceived value and perceived risk. J Theor Appl Electron Commer Res. 2021;16(5):1893–911.

[20] Slack N, Singh G, Sharma S. Impact of perceived value on the satisfaction of supermarket customers: developing country perspective. Int J Retail Distrib Manag. 2020;48(11):1235–54.

[21] Chen Q, Huang R, Hou B. Perceived authenticity of traditional branded restaurants (China): impacts on perceived quality, perceived value, and behavioural intentions. Curr Issues Tour [Internet]. 2020;0(0):2950–71. Available from: https://doi.org/10.1080/13683500.2020.1776687

[22] Cheng Y hsin, Chang KC, Cheng YS, Chu-Jin H. How Green Marketing Influences Customers' Green Behavioral Intentions in the Context of Hot-Spring Hotels. J Tour Serv. 2022;13(24):190–207.

[23] Chen YS. Towards green loyalty: Driving from green perceived value, green satisfaction, and green trust. Sustain Dev. 2013;21(5):294–308.

[24] Wu YL, Li EY. Marketing mix, customer value, and customer loyalty in social commerce: A stimulus-organism-response perspective. Internet Res. 2018;28(1):74–104.

[25] Suttikun C, Meeprom S. Examining the effect of perceived quality of authentic souvenir product, perceived value, and satisfaction on customer loyalty. Cogent Bus Manag [Internet]. 2021;8(1). Available from: https://doi.org/10.1080/23311975.2021.1976468

[26] Akoglu HE, Ozbek O. The effect of brand experiences on brand loyalty through perceived quality and brand trust: a study on sports consumers. Asia Pacific J Mark Logist [Internet]. 2021;34(10):2130–48. Available from: https://www.emerald.com/insight/content/doi/10.1108/APJML-05-2021-0333/full/html

[27] Wu SI, Lin SR. The effect of green marketing strategy on business performance: a study of organic farms in Taiwan. Total Qual Manag Bus Excell [Internet]. 2014;27(1–2):141–56. Available from: http://dx.doi.org/10.1080/14783363.2014.959256

[28] Majeed MU, Aslam S, Murtaza SA, Attila S, Molnár E. Green Marketing Approaches and Their Impact on Green Purchase Intentions: Mediating Role of Green Brand Image and Consumer Beliefs towards the Environment. Sustain. 2022;14(18):1–18.

[29] Masocha R. Green Marketing Practices: Green Branding, Advertisements And Labelling And Their Nexus With The Performance Of SMEs In South Africa. J Sustain Sci Manag. 2021;16(1):174–92.

[30] Ebrahim RS. The Role of Trust in Understanding the Impact of Social Media Marketing on Brand Equity and Brand Loyalty Media Marketing on Brand Equity and Brand Loyalty. J Relatsh Mark [Internet]. 2019;1–22. Available from: https://doi.org/10.1080/15332667.2019.1705742

[31] Zheng X, Lee M, Cheung C. Examining e-loyalty towards online shopping platforms : the role of coupon proneness and value consciousness. Internet Res. 2017;(3).

[32] Stathopoulou A, Balabanis G. The effects of loyalty programs on customer satisfaction , trust , and loyalty toward high- and low-end fashion retailers. J Bus Res [Internet]. 2016; Available from: http://dx.doi.org/10.1016/j.jbusres.2016.04.177

[33] Kwon WS, Englis B, Mann M. Are third-party green-brown ratings believed?: The role of prior brand loyalty and environmental concern. J Bus Res [Internet]. 2016;69(2):815–22. Available from: http://dx.doi.org/10.1016/j.jbusres.2015.07.008

[34] Witek L, Kuzniar W. Green Purchase Behavior : The Effectiveness of Sociodemographic Variables for Explaining Green Purchases in Emerging Market. Sustainability. 2021;13(1):209.

[35] Delcea C, Cotfas LA, Trica CL, Craciun L, Molanescu AG. Modeling the Consumers Opinion Influence in Online Social Media in the Case of Eco-friendly Products. Sustainability. 2019;11.

[36] Park J eun, Kang E. The Mediating Role of Eco-Friendly Artwork for Urban Hotels to Attract Environmental Educated Consumers. Sustainability. 2022;

[37] Suh JC, Yi Y. When brand attitudes affect the customer satisfaction-loyalty relation: The moderating role of product involvement. J Consum Psychol. 2006;16(2):145–55.

[38] Bagozzi RP, Yi Y. Specification , evaluation , and interpretation of structural equation models. J Acad Mark Sci. 2012;8–34.

[39] Hair Jr. JF, Black WC, Babin BJ, Anderson RE. Multivariate Data Analysis. Seventh Ed. Edinburgh Gate ,Harlow: Pearson Education Limited; 2014. 739 p.

[40] Tanwari A. A Study on Assessing the Relationship between Green Marketing and Brand Loyalty in Manufacturing Sector of Greece : A Moderating Role of Green Supply Chain Practices. 2020;4(1):44–55.

[41] Khawaja L, Ali AA, Mostapha N. The mediating effect of customer satisfaction in relationship with service quality, corporate social responsibility, perceived quality and brand loyalty. Manag Sci Lett. 2021;11:763–72.

[42] Suki NM. International Journal of Sustainable Development & World Ecology Customer environmental satisfaction and loyalty in the consumption of green products. Int J Sustain Dev World Ecol. 2015;(June):37–41.

[43] Akbari M, Mehrali M, SeyyedAmiri N, Rezaei N, Pourjam A. Corporate social responsibility, customer loyalty and brand positioning. Soc Responsib J. 2020;16(5):671–89.

[44] Solis B. What's the future of business? : changing the way businesses create experiences. John Wiley & Sons, Inc.; 2013. 226 p.

[45] Grover A, Arora N, Sharma P. Examining the Influence of HEXACO Personality Traits on Impulse Buying Tendency, Perceived Enjoyment, and Impulse Buying Behaviour in the Context of Instagram Commerce. Int J Electron Mark Retail. 2023;

[46] Nam K, Qiao Y, Ahn B il. Analysis of Consumer Preference for Green Tea with Eco-Friendly Certification in China. Sustainability. 2022;1–16.

[47] Choi Y, Kroff MW, Kim J. Developing brand advocacy through brand activities on Facebook. J Consum Mark. 2021;38(3):328–38.