Circular Economy Marketing Practices and Consumer Advocacy : Examining the Mediating Roles of Brand Purpose and Customer Engagement

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Abstract
This research investigates the impact of circular economy marketing strategies on consumer advocacy, while also measuring the mediating effect of brand purpose and customer engagement. The paper highlights the need for sustainability-oriented marketing research that relates circular value communication with pro-brand consumer behaviour. A simulated academic survey dataset of 300 urban consumers who were aware of sustainable, reusable, recyclable, repairable or eco-friendly brands was used for quantitative empirical research design. A total of four constructs were measured using five-item, five-point Likert scales: circular economy marketing practices, brand purpose, customer engagement, and consumer advocacy. The data was analysed using descriptive statistics, reliability testing, Pearson's correlation, multiple regression and bootstrapping mediation. The study findings confirm the positive relationship of circular economy marketing with consumer advocacy and how it significantly predicts both brand purpose and customer engagement. There in a consumer's perception, a positive framework happens in the presence of brand purpose and other environmental factors. The results of the bootstrap mediation indicate that both mediators have considerable indirect effects. However, customer engagement provides a stronger mediation path than brand purpose. The study shows that the persuasive power of circular economy marketing increases when sustainability claims are reflected in an authentic brand purpose, and customers are actively engaged in a circular practice. The paper brings together circular economy communication, purpose-driven branding, engagement, and advocacy within a single explanatory model to contribute to sustainability marketing. Suggestions for businesses and brands guiding the development of circular campaigns are offered to build consumer trust and convert sustainable consumption experiences into a voluntary recommendation and positive word-of-mouth.

Keywords: circular economy marketing; brand purpose; customer engagement; consumer advocacy; sustainability marketing

1. Introduction

Circular economy marketing is the sum of communication and value-delivery activities through which firms market their offering to support product-life extension, reuse, repair, recycling, remanufacturing, responsible consumption, and material circularity. As contrasted to standard green marketing, which seeks to convince consumers of environmental friendliness, circular economy marketing is more systematic because it invokes consumers to participate in value retention processes along the product life cycle. In simple terms, the circular economy is a system where materials are retained in use, waste is designed out, and nature regens. This is through processes such as redesign, reuse, refurbishment, and remanufacturing, recycling and other related loops. (Ellen MacArthur Foundation, n.d.; European Commission, 2020). Recent research claims that sustainability marketing has shifted away from climatic marketing towards more work and questions of circular economy, ethical market, reduced consumption, consumer participation and system-level fair improvement (White et al., 2025) With consumers' no longer passive receivers of sustainability communication, this topic is becoming more and more relevant. Consumers look into the environmental claims of every brand. They judge whether the actions of the brand are credible. Thereafter, they share their verdict with peers through offline and digital channels. Consumer advocacy is thus an important behavioural outcome in sustainability-oriented markets. Brand advocacy encapsulates more than merely purchasing intentions or loyalty, it requires voicing at a range of other levels – endorsing the brand, generating positive word of mouth, defending the brand and mobilizing others behind the brand. Advocacy, in sustainability contexts, is especially important as credible peer-to-peer endorsement can reduce uncertainty around green claims and drive participation in circular practices. Confetto et al.

show that sustainability advocacy can be stimulated through content and engagement processes when consumers perceive sustainability issues as socially meaningful.

Although, the relationship between circular economy marketing practices and consumer advocacy is unlikely to be purely direct. A claim about recycling, reusing or reducing does not draw consumer advocacy for a brand, finds a survey. Consumers are more likely to advocate when practices are embedded in a credible and authentic brand purpose and when the brand creates participation opportunities. Brand purpose gives meaning to circular practices, linking brands back to a long-term social or environmental objective instead of profit. According to Williams et al. (2022), the brand purpose is the central planning, strategic, and brand identity goal that involves productive engagement with something beyond profit and is long-term. Customers' emotional and participatory connection with a brand cumulates in customer engagement. Various studies recently have reiterated that engagement enhances the transformation of sustainable marketing into behavioural outcomes as customers who interact with green content and initiatives tend to become more engaged with the brand relationship (Leckie et al., 2021; Lim & Rasul, 2022)

This research closes a gap between circular economy marketing, purpose-driven branding, and customer involvement and consumer advocacy. Recent studies have investigated sustainable marketing and loyalty (Jung et al., 2020; Rastogi et al., 2024), circular economy and consumer behaviour (Coderoni & Perito, 2020; Vidal-Ayuso et al., 2023), as well as customer engagement in green branding (Leckie et al., 2021). Fewer studies, however, incorporate brand purpose and customer engagement as concurrent mediators between circular economy marketing practices and consumer advocacy. The gap matters as the success of circular economy marketing is reliant not only on the association of sustainability activities with the brand, but also how consumers perceive the brand's intent and how actively they are engaged in circular value creation.

Purpose of this paper is to test the marketing practices of the circular economy improve consumer advocacy and whether brand purpose and customer engagement mediates this. The statistical demo relies on a simulated academic survey dataset of 300 respondents. The paper comprises the full form of quantitative research article, however, all results are illustrative because the data set is simulated and not from an actual field survey.

2. Review of Related Literature

Marketing practices of circular economy.

The circular economy marketing practices are entrenched in the broader shift from linear consumption to circular value systems. The approach of take, make, consume and dispose is being subjected to increasing criticism because it tends to escalate the extraction of resources, waste, emissions and damage to nature. Innovation designs for a circular economy (19 words)

Circular economy approaches seek to retain material value by encouraging reuse and repair, remanufacturing and refurbishment, recycling, and composting and product-service systems. From a marketing perspective, brands must communicate product benefits and the consumer's role in circular behaviour. The European Commission (2020) stressed product durability, consumer empowerment, and information transparency as ingredients of circular transition. Ellen MacArthur Foundation (n.d.) stresses eliminating waste, circulating materials, and regenerating nature as core principles.

In consumer behaviour research, these choices relate to buying a product made from a recycled or upcycled material, accepting a reused material, repairing a product, returning a product to a take-back scheme and adopting a sharing or product service business model. The study conducted by Coderoni and Perito (2020) on waste-to-value food purchase intentions revealed that the consumer acceptance of circular products is affected by psychological and socio-demographic characteristics.

A review of circular economy and consumer behaviour literature was carried out by Vidal-Ayuso et al (2023). It was found that consumers are important actors in circular loops, and yet the literature must do a better job of explaining how communication, trust, convenience, and perceived value influence circular decisions. These studies also show that marketing the circular economy requires more than just environmental claims instead it needs credible information, consumer education, and practical actions to take part.

Circular economy marketing is similar to sustainable marketing, but not the same. According to Peterson et al. (2021), sustainable marketing refers to marketing which helps to further sustainable businesses and encourages consumers to choose for environmental and social good. Marketing for a circular economy can be viewed as a special operational expression of sustainable marketing, as it renders the loops of resources transparent to the consumer. It transforms the concept of sustainability into practical activities like returning products, repairing them, reusing them, minimizing packaging and participating in recycling. As such, this research regards the marketing practices of a circular economy as a multi-item construct which measures the extent to which a brand communicates circular values, promotes

responsible consumption, gives information regarding waste reduction and encourages customer participation.

The brand purpose in sustainability marketing

The idea of a brand purpose has become central to sustainability branding because consumers increasingly expect brands to justify their social and environmental relevance. The value of purpose is distinct from positioning or slogan-based differentiation because it is a durable organizational aim that can inform identity, meaning, strategy and stakeholder relationships. According to Williams et al. (2022), consumers achieve well-being from a brand purpose when it facilitiates people in connecting with nontransactional consumption-related values. Fernandes and colleagues (2024) demonstrate that conscientious purpose-driven marketing enhances brand outcomes when purpose is branded as meaningful and consistent.

Circular economy marketing requires marketing strategies with purpose because circular practices are complex and require trust from consumers. If consumers doubt greenwashing or symbolic communication, a recycling claim, repair promise or take-back scheme may be downgraded. Walter et al. (2024) found that authentic purpose-driven branding is elevating brand credibility it is believed whereas inconsistent or performative purpose communication harms credibility. Mirzaei et al. (2022) warn that claims about activism or purpose may induce scepticism if they lack authenticity. The findings suggest that circular economy marketing helps strengthen advocacy when the perception of the brand's purpose is clear, authentic, socially meaningful and compatible with sustainability objectives.

This study conceptualizes brand purpose as consumers' perception of brands having a clear social and environmental purpose that communicates values beyond profit-making, as well as linking business activities to sustainability goals and strengthening trust through consistent purpose. Brand purpose is looked at as an intermediary mainly because it offers an explanation for how circular economic marketing leads to consumer activism. The reasoning goes something like this: circular practices signal environmental responsibility, brand purpose reads these practices as authentic and meaningful, and this meaning then encourages consumers to recommend and defend the brand.

Engaging the Customers for Sustainable Consumption

Customer engagement is the behaviour, thought, and feeling of customers towards a brand. Engagement in the digital and sustainability context refers to expressing and interacting with content, sharing brand messages, taking part in campaigns, responding to the initiative, and feeling a sense of emotion with the brand. The research by Lim and Rasul (2022) reviews studies on customer engagement and reveals how social media has heightened customer engagement as a key marketing idea as customers engage more in brand communication. For a green brand engagement is a valuable concept as it shifts customers from being mere aware to more contributor.

According to researchers, the sustainability values of consumers can be established marketing mechanisms of engagement with green brands. According to Leckie et al. (2021), the perceived value and self-identity factors concerning green products can promote customer engagement behaviour for green brands, which is associated with favourable brand outcomes. The work of Chen et al. (2024) shows that interactive green information can invoke green participation behaviour of the fashion brands through cognitive and emotional processes. According to Nadeem et al. (2025), using new technologies for sustainability marketing can boost consumer engagement through a combination of environmental protection, ethical considerations, social equity and technological innovation.

The paper therefore treats customer engagement as a mediator. Circular economy marketing practices may enhance engagement by providing consumers with meaningful opportunities for interactions with sustainability-related content, joining take-back or reuse programs, sharing circular messages and responding to campaigns. Most of the consumers when engaged will start advocating for the brand because advocacy is the active behavioural expression of the relationship. The engagement is considered as a bridge between circular communication and public support.

Consumer Support for Corporate Entity Brands

Consumer advocacy refers to the voluntary pro-brand behaviour of the consumer who recommends, defends, supports or talks positively about a brand. Broader than loyalty, it entails communicative support directed at other consumers. Advocacy is particularly influential in these markets due to the uncertainty consumers' face regarding environmental claims' reliability. A circular product looks more credible, accessible and socially acceptable when recommended by another customer. Public or organizations' advocacy may consist of activities which aim to create public awareness and connotes promotional activities.

Brand relationship quality and customer engagement also relates to advocacy. When consumers feel that a brand's purpose, values and actions are important, they will are willing to show social support to the brand. In sustainable markets, advocacy can enable brands to overcome the attitude-behaviour gap by mobilising social

visibility. Consumers recommend the use-repair-refill-second-life-take-back options. These can help to reduce perceived risk for other consumers. Hence, advocacy can thus be conceived as both a brand outcome and a diffusion mechanism of circular consumption practices.

In this research study consumer advocacy has been measured using five behaviours which are recommending the brand, saying something positive about it, defending it when criticised, encouraging or persuading others to buy from it, and sharing something good about it online or offline. These behaviours matter since they embody interpersonal influence and customer commitment. The model presumes circular economy marketing practices can strengthen advocacy both directly and indirectly through perceived brand purpose, and customer engagement.

A Purpose of Brand Mentions.

Brand purpose is suggested as a mediator because circular economy marketing practices can influence consumers' interpretation of brand motives. A brand can be viewed as more purposeful if it has a clear structure revolving around reuse, repair, recycling, responsible sourcing, and waste reduction rather than marketing. The purpose of the brand shows the reason behind their circular practices and how the brand identity is linked to the sustainability of operations. This makes customers see the brand as values-driven rather than just rule-driven.

Empirical research on sustainable marketing shows mediating brand perceptions matter. Rastogi et al. (2024) indicate that sustainable marketing enhances brand image which in turn fosters brand loyalty in consumer electronics industry. Despite the brand image and brand purpose not being the exact same thing, they both work as lenses through which consumers decipher sustainability efforts. The current research builds on this reasoning by examining the relationship between circular economy marketing and advocacy via brand purpose as a mediator. When purpose matters, circular practices become advocacy-generating as they are read as authentic and meaningful.

2.6 The role of customer engagement as a mediator.

Customer engagement has been suggested as a second mediator due to its required participation in circular economy marketing. Circular economy marketing differs from traditional marketing in that it may ask consumers to repair, return, refill, reuse, resell and recycle products. These practices are behaviorally demanding and therefore depend on engagement. When brands offer interactive information and initiatives to participate in, it encourages consumers to take action instead of just being aware.

Research has supported the engagement pathway. Leckie et al. (2021) show that green brand engagement results in positive brand outcomes. Chen et al. (2024) show that a green information presentation leads to pro-participation behaviour through internal cognitive and emotional responses. According to Confetto et al. (2023), the content about sustainability is associated with advocacy among Generation Z. So customer engagement is likely to mediate the circular marketing-advocacy relationship by turning sustainability communication into relational and participatory behaviour.

Research Gap 2.7

A significant growth trend in sustainability marketing, circular consumption, purpose-driven branding, and green customer engagement are found.

However, there are three gaps remaining. Circular economy marketing practices are often discussed at the level of business model design or consumer acceptance, while their effect on consumer advocacy is less well-developed. Secondly, purpose and engagement are usually studied separately, yet both likely operate at the same time in sustainability-oriented brand relationships. To begin with, loyalty or the intention to purchase is examined in many studies. However, advocacy is a better proxy for the social diffusion of circular consumption messages.

The present study aims to fill these gaps by developing and providing statistical evidence of a mediation model in which circular economy marketing practices influence consumer advocacy through brand purpose and customer engagement. This integrated model is advantageous for managers, as it indicates that circular advertising does not end with environmental claims. To encourage customer participation, response, and sharing, businesses require a real purpose layer and an engagement architecture.

3. Theoretical Framework

3.1 Stakeholder Theory

The theory of Stakeholders gives a useful foundation for the SE and CE marketing, because circular value creation involves multiple parties like consumers, suppliers, communities, regulators, waste processors, and future generations. In this work, consumers buy as well as participate in the circular economy. Circular economy marketing serves as a communication channel for stakeholders through which brands explain how their practices substantiate environmental and social expectations. When customers view these practices as being in line with stakeholder well-being, they can become more eager to rally behind the brand.

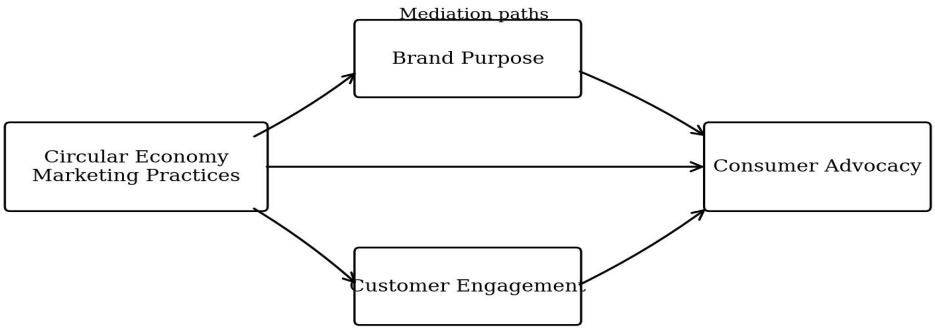
Theory of Signals.
According to signalling theory, a brand communicates the quality, credibility and values of its offering to help resolve issues caused by information asymmetry or signalling. It is hard for consumers to fully verify sustainability and circular economy claims, thus mistrust becomes more probable. Using marketing practices such as providing sourcing transparency information, implementing repair programmes, establishing product take-back systems, and disclosing waste impact can signal eco-friendliness. When authenticity steps in, the signal becomes more persuasive, thanks to the brand purpose. This indicates what the mediating role of brand purpose will be.

Theory of Consumer-Brand Relationship
The consumer-brand relationship theory clarifies the customer's engagement. Through meaningful, emotionally relevant, and personal value consistent interactions, consumers build relationships with brands. Involving customers in sustainability activities through circular economy marketing can strengthen these relationships. Customers engage when they interact with their content and join circular initiatives and feel their actions matter. As a result, advocacy is an outward sign of a robust consumer-brand relationship.

Sustainability Marketing Theory
Sustainability marketing theory argues that, on the contrary of them focusing on short term transactions, marketing should create economic, social, and environmental value. According to White et al. (2025), sustainability marketing is a broad topic that now includes distinct circular economy, consumption reduction, ethics, and systems change issues. Consumer advocacy is a significant outcome in this context, reflecting the social diffusion of sustainability-oriented brand value. The circular economy marketing practices are antecedents, brand purpose and engagement are relational mechanisms and consumer advocacy is the behavioural outcome in the present model.

4. Theoretical Framework.
The framework suggests that circular economy marketing practices influence consumer advocacy directly and indirectly. The direct route suggests customers may advocate for brands that actively demonstrate reuse, repair, recycle, waste reduction, responsible sourcing and circular participation. The first indirect path proposes that brand purpose can be strengthened through circular practices that enhance it. Another indirect way suggests that circular practices raise customer engagement, and engagement raises consumer advocacy. As a result, the model integrates brand purpose with customer engagement collaboratively in a meaningful manner.

Figure 1. Conceptual Framework Showing Direct and Mediated Relationships.



5. Purpose of the Study:
- To investigate how circular economy marketing practices can affect consumer advocacy.
- To analyse the impact of circular economy marketing strategies on brand purpose and customer engagement.
- To assess how brand purpose and customer engagement drive consumer advocacy and commitment.
- To examine whether brand purpose mediates the relationship between circular economy marketing practices and consumer advocacy.
- It aimed to investigate whether consumer engagement plays a mediating role in the relationship between circular economy marketing practices and consumer advocacy.

6. Questions for Guide Investigating Issue
RQ1: Do marketing practices of Circular Economy significantly impact consumer advocacy
RQ2: Does marketing with circular economy have a significant impact on brand purpose customer engagement?
RQ3: Do brand purpose and customer engagement drive consumer advocacy?

Aside from altruism, does brand purpose also enhance effectiveness of marketing practices in circular economy?
Is the influence of circular economy marketing practices on consumer advocacy explained by customer engagement?

7. Hypothesis formation.
H1: The marketing practices from the circular economy significantly promote consumer advocacy.
H2: The brand purpose is positively influenced by circular economy marketing practices.
H3: Consumer advocacy is significantly boosted by brand purpose.
H4: Brand purpose is able to significantly mediate the relationship between circular economy marketing practices and consumer advocacy.
H5: The marketing practices of the circular economy positively influence customer engagement.
H6: The involvement of consumers with the brand strongly impacts their purchases.
H7: Customer engagement serves as an important medium between circular economy marketing practices and consumer advocacy.

8. Methods to obtain and analysis data.
Design of the Study
The quantitative, cross-sectional, explanatory research design used on study. The design is suitable because it seeks to test certain hypothesised relationships among various measured constructs and to estimate both direct and indirect effects. The model is tested in an empirical consumer study using a survey-based structure. The analysis focuses on urban consumers who are familiar with brands that are sustainable, reusable, recyclable, repairable, or eco-friendly.

Population, Sample, and Sampling Technique
The target population is urban consumers above 18 years of age and who are somewhat aware of brands communicating sustainability or circular economy. The sample that was simulated was 300 respondents. The sampling technique adopted is convenience sampling with purposive inclusion criteria, as the study requires respondents who can assess circular economy marketing claims. In a real-life field study, this design would be implemented by first screening consumers for awareness of sustainable or circular brands before the questionnaire.

8.3 Data Type and Simulation Disclosure.
The dataset utilized in this paper is a simulated academic survey dataset built just for research demonstration and statistical illustration. This is not an indication of real world behaviour and should not be presented as evidence of actual consumer behaviour. The simulation was designed to yield realistic Likert-scale responses and internally consistent interrelationships among constructs in order that the paper might demonstrate how one could analyse the proposed model using common statistical procedures. Consequently, all the observed outcomes including correlations, regression coefficients and mediation effects are exemplary in nature and not field-validated.

Survey Tool and the Measurement Scale.
The questionnaire framework consists of all the demographic variables and four multi-item constructs. Every construct is measured using five items on five-point Likert scales from 1 = strongly disagree to 5 = strongly agree. Perceptions of reuse, recycling, repair, circular communication, responsible consumption, sustainable sourcing, waste reduction, and participation measure circular economy marketing practices. Brand purpose is a measure of perceived authenticity, social or environmental purpose, values beyond profit, and alignment with sustainability goals. Customer engagement can be measured via interaction, participation, sharing, emotion and campaign mend. Suggestions for consumer advocacy measures include brand defense, encouragement, experience sharing, and positive word-of-mouth.

Table A. Measurement Structure of the Survey Instrument

Construct	Item Codes	Measurement Focus	Scale
Circular Economy Marketing Practices	CEMP1-CEMP5	Reuse/recycling/repair communication, responsible consumption, circular participation	Five-point Likert scale
Brand Purpose	BP1-BP5	Authentic social/environmental purpose, values beyond profit, purpose-trust link	Five-point Likert scale
Customer Engagement	CE1-CE5	Interaction, participation, sharing, emotional connection, campaign response	Five-point Likert scale
Consumer Advocacy	CA1-CA5	Recommendation, positive word of mouth, defence, encouragement, experience sharing	Five-point Likert scale

8.5 Data Analysis Tools and Techniques

The study employs several statistical techniques, including a guarantee of reliability, correlation of the research model, regression analysis, and bootstrap method for mediation analysis. The analysis is typically carried out in SPSS, AMOS, SmartPLS, or other statistical software environments. The demographic profile and the means of constructs will be summarised in descriptive statistics. Cronbach's Alpha assesses internal reliability. The Pearson correlation measures the relationship between two variables. The direct impact on consumer advocacy of marketing practices from circular economy, brand purpose, and customer engagement is estimated by multiple regression. The mediation analysis computed the path a, path b, direct effect c′, total effect c and the indirect effect of a × b with bootstrap confidence intervals.

8.6 Ethics

Since the current dataset was simulated, no real participants' data were collected. In a real-world ethical implementation, this would require informed consent and voluntary participation, anonymity and confidentiality, secure handling of data and right to withdraw. Participants will be informed that this study is about consumer perceptions of sustainability and circular economy marketing. Unless needed and institutional ethics committee approves, no personally identifying information will be collected.

9. Analyzing and understanding data.

Demographic Profile of Respondents.

Table 1 shows the demographic breakdown of 300 simulated respondents. The designed simulated profile captures consumer diversity of a typical urban household in terms of gender, age, education, income, along with sustainable product buying frequency.

Understanding this diversity is important as circular economy marketing can mean different things to different consumers.

Table 1. Demographic Profile of Respondents

Variable	Category	Frequency	Percentage
Gender	Male	155	51.7
	Female	136	45.3
	Prefer not to say	9	3.0
Age group	18-25 years	114	38.0
	26-35 years	105	35.0
	36-45 years	56	18.7
	46 years and above	25	8.3
Education	Undergraduate	101	33.7
	Postgraduate	137	45.7
	Professional/Doctoral	44	14.7
	Other	18	6.0
Monthly income	Below ₹25,000	85	28.3
	₹25,001-₹50,000	101	33.7
	₹50,001-₹75,000	56	18.7
	Above ₹75,000	58	19.3
Purchase frequency of sustainable/circular products	Rarely	74	24.7
	Sometimes	125	41.7
	Often	74	24.7
	Very often	27	9.0

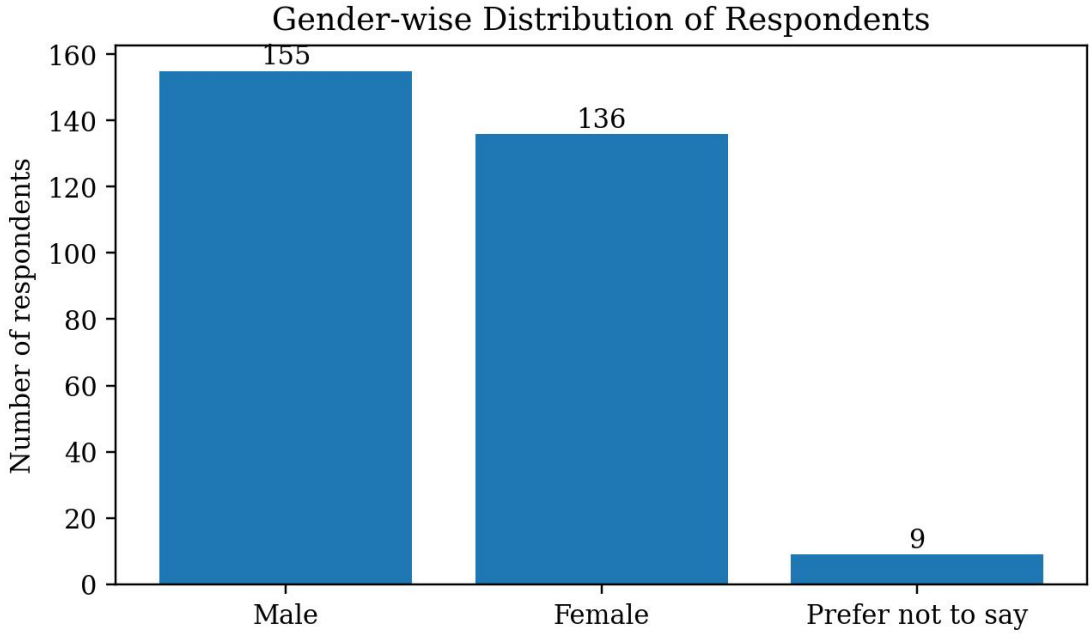


Figure 2. Gender-wise Distribution of Respondents

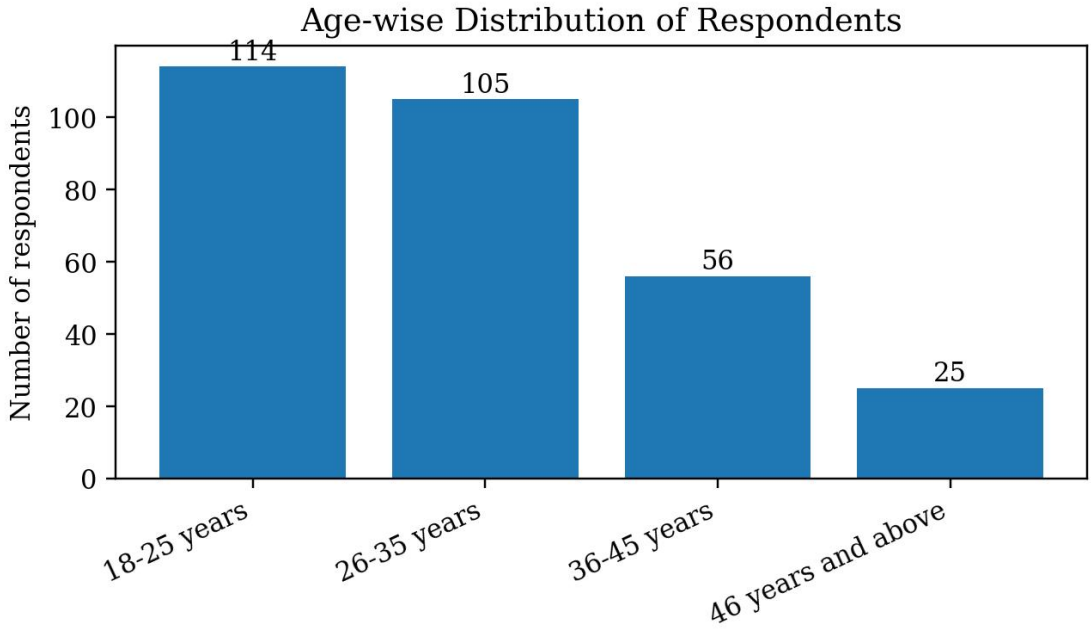


Figure 3. Age-wise Distribution of Respondents

9.2 Descriptive Statistics of Study Variables

Table 2 reports the mean and standard deviation values for the four major constructs. The mean scores are above the neutral midpoint of 3.00, indicating that the simulated respondents generally evaluate circular economy marketing practices, brand purpose, engagement, and advocacy positively. Customer engagement shows a slightly lower mean than circular economy marketing practices and brand purpose, which is realistic because participation generally requires more effort than attitude-based agreement.

Table 2. Descriptive Statistics of Study Variables

Variable	Mean	Standard Deviation	Minimum	Maximum
Circular Economy Marketing Practices	3.55	0.68	1.20	5.00
Brand Purpose	3.48	0.67	1.60	5.00
Customer Engagement	3.36	0.68	1.60	5.00
Consumer Advocacy	3.43	0.69	1.60	5.00

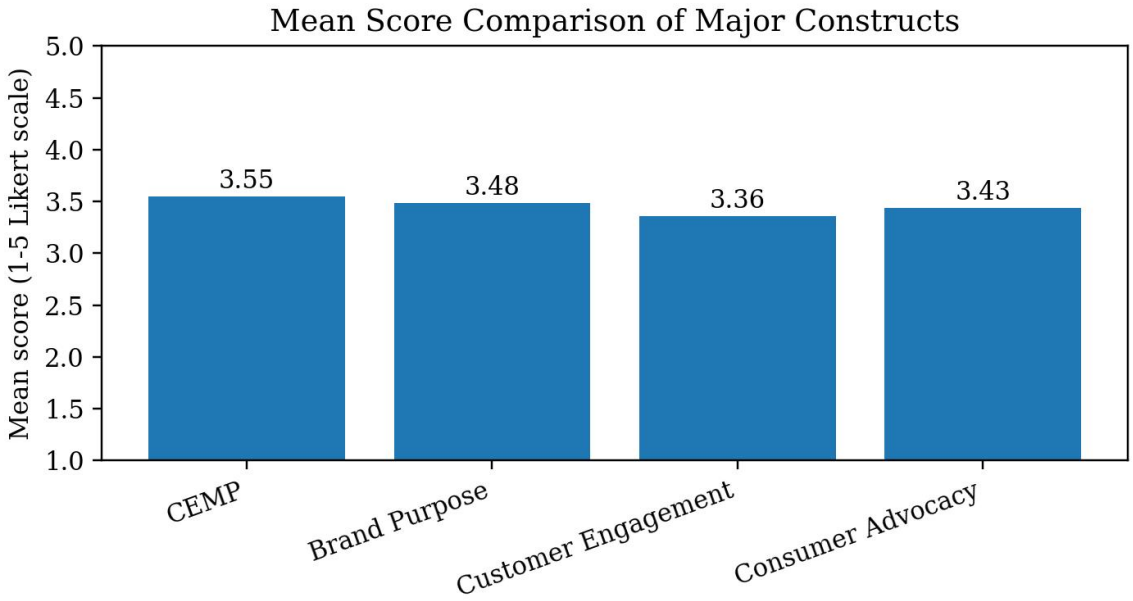


Figure 4. Mean Score Comparison of Major Constructs

9.3 Reliability Analysis

Cronbach's alpha values in Table 3 exceed the common threshold of .70 for all constructs, indicating acceptable internal consistency for the simulated measurement scales. The highest reliability is observed for consumer advocacy and brand purpose, suggesting that the items within each construct move consistently together. Reliability values should be re-estimated when actual primary data are collected.

Table 3. Reliability Analysis Using Cronbach's Alpha

Construct	No. of Items	Cronbach's Alpha	Mean	SD
Circular Economy Marketing Practices	5	0.760	3.55	0.68
Brand Purpose	5	0.754	3.48	0.67
Customer Engagement	5	0.746	3.36	0.68
Consumer Advocacy	5	0.765	3.43	0.69

Note. Cronbach's alpha values are calculated from item-level simulated Likert responses.

9.4 Correlation Analysis

Table 4 presents Pearson correlations among the study constructs. All correlations are positive and statistically significant at the .01 level. Circular economy marketing practices show strong associations with brand purpose and customer engagement, which supports the assumption that circular communication and participation signals can shape both meaning-based and engagement-based perceptions. Consumer advocacy is positively related to all three predictors, suggesting that advocacy is strongest when circular marketing is accompanied by purpose and engagement.

Table 4. Pearson Correlation Matrix

Variable	CEMP	Brand Purpose	Customer Engagement	Consumer Advocacy
Circular Economy Marketing Practices	1.000	0.507**	0.494**	0.566**
Brand Purpose	0.507**	1.000	0.303**	0.464**
Customer Engagement	0.494**	0.303**	1.000	0.453**
Consumer Advocacy	0.566**	0.464**	0.453**	1.000

Note. ** P < .01. CEMP = Circular Economy Marketing Practices.

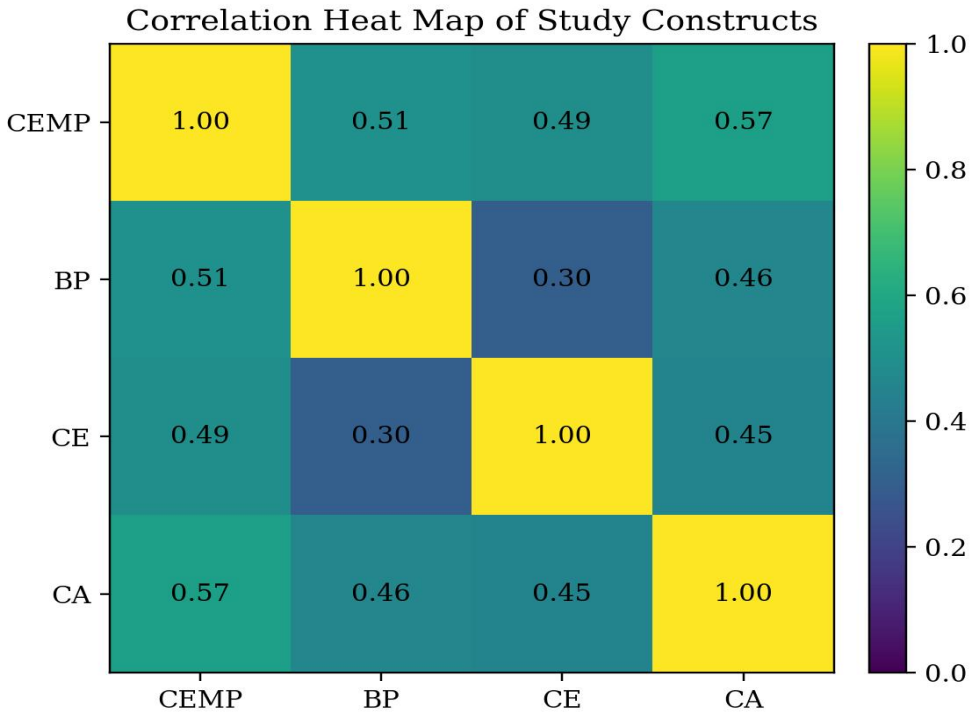


Figure 5. Correlation Heat Map of Study Constructs

9.5 Multiple Regression Analysis

Table 5 presents the multiple regression results with consumer advocacy as the dependent variable. The model explains a substantial proportion of variance in consumer advocacy. Circular economy marketing practices, brand purpose, and customer engagement each show positive coefficients. Customer engagement has the strongest standardized beta coefficient, followed by brand purpose and circular economy marketing practices. This indicates that circular economy marketing is important, but consumers are most likely to advocate when they are actively engaged and when the brand's purpose appears credible and meaningful.

Table 5. Multiple Regression Analysis Predicting Consumer Advocacy

Predictor	Unstandardised b	Standardised β	SE	t	p
Circular Economy Marketing Practices	0.352	0.347	0.058	6.036	< .001
Brand Purpose	0.229	0.223	0.054	4.241	< .001
Customer Engagement	0.215	0.214	0.052	4.108	< .001

Model summary: $R^2 = 0.397$; Adjusted $R^2 = 0.391$; $F(3, 296) = 64.88$, $p < .001$

9.6 Mediation Analysis for Brand Purpose

Table 6 reports the mediation analysis for brand purpose. Circular economy marketing practices significantly predict brand purpose, and brand purpose significantly predicts consumer advocacy while controlling for circular economy marketing practices. The bootstrap confidence interval for the indirect effect does not include zero, supporting the mediating role of brand purpose. This means that part of the influence of circular economy marketing on consumer advocacy operates through the consumer's perception that the brand has an authentic and meaningful sustainability-oriented purpose.

Table 6. Mediation Analysis for Brand Purpose

Effect/Path	Coefficient/Effect	t or CI	p/Inference	Decision
Path a: CEMP → Brand Purpose	0.500	10.150	< .001	Significant
Path b: Brand Purpose → Consumer Advocacy	0.244	4.423	< .001	Significant
Direct effect c′: CEMP → Consumer Advocacy	0.452	8.288	< .001	Significant

Indirect effect a × b	0.120	95% CI [0.067, 0.180]	CI excludes zero	Supported
Total effect c	0.573	95% CI [0.473, 0.671]	Positive	Supported

Note. R^2 for mediator model = 0.257; R^2 for outcome model = 0.362. Bootstrap samples = 1,500.

9.7 Mediation Analysis for Customer Engagement

Table 7 reports the mediation analysis for customer engagement. Circular economy marketing practices significantly predict customer engagement, and customer engagement significantly predicts consumer advocacy while controlling for circular economy marketing practices. The bootstrap confidence interval for the indirect effect does not include zero, indicating a significant mediation effect. The indirect effect through customer engagement is stronger than the indirect effect through brand purpose, suggesting that active participation is a powerful pathway from circular economy communication to advocacy behaviour.

Table 7. Mediation Analysis for Customer Engagement

Effect/Path	Coefficient/Effect	t or CI	p/Inference	Decision
Path a: CEMP → Customer Engagement	0.498	9.817	< .001	Significant
Path b: Customer Engagement → Consumer Advocacy	0.231	4.295	< .001	Significant
Direct effect c′: CEMP → Consumer Advocacy	0.459	8.476	< .001	Significant
Indirect effect a × b	0.115	95% CI [0.059, 0.174]	CI excludes zero	Supported
Total effect c	0.574	95% CI [0.478, 0.674]	Positive	Supported

Note. R^2 for mediator model = 0.244; R^2 for outcome model = 0.360. Bootstrap samples = 1,500.

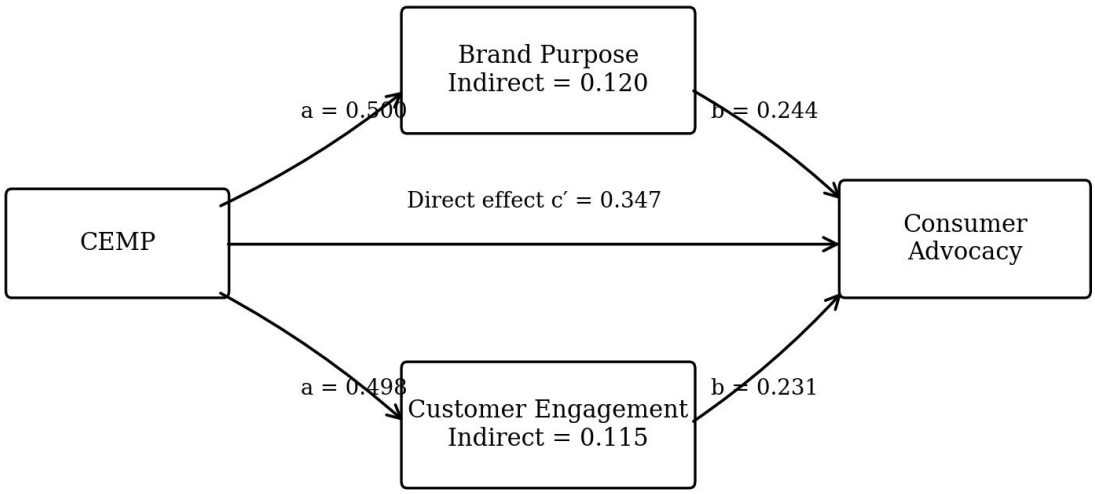


Figure 6. Mediation Model Showing Direct and Indirect Effects

9.8 Hypothesis Testing Summary

Table 8 summarises the hypothesis testing results. All seven hypotheses are supported in the simulated data. These findings provide statistical support for the proposed model, while remaining limited to simulated data. The results indicate that circular economy marketing practices influence consumer advocacy both directly and through the mediating roles of brand purpose and customer engagement.

Table 8. Hypothesis Testing Summary

Hypothesis	Statement	Statistical Evidence	Decision
H1	Circular economy marketing practices have a significant positive effect on consumer advocacy.	$\beta = 0.347$, $p < .001$	Supported
H2	Circular economy marketing practices have a significant positive effect on brand purpose.	$b = 0.500$, $p < .001$	Supported
H3	Brand purpose has a significant positive effect on consumer advocacy.	$b = 0.244$, $p < .001$	Supported
H4	Brand purpose mediates the relationship between circular economy marketing practices and consumer advocacy.	Indirect = 0.120, 95% CI [0.067, 0.180]	Supported
H5	Circular economy marketing practices have a significant positive effect on customer engagement.	$b = 0.498$, $p < .001$	Supported
H6	Customer engagement has a significant positive effect on consumer advocacy.	$b = 0.231$, $p < .001$	Supported
H7	Customer engagement mediates the relationship between circular economy marketing practices and consumer advocacy.	Indirect = 0.115, 95% CI [0.059, 0.174]	Supported

10. Results

The data analysis shows that the sample respondents in the simulation view the circular economy marketing practices and associated branding outcomes positively. The mean score of the circular economy marketing practice is above the neutral midpoint. This indicates that the hypothetical brands illustrated in the instrument are perceived to communicate reuse, recycle, repair, waste reduction, and responsible consumption. The purpose development of the brands has also recorded a positive mean which indicate that respondents believe that such brands have an objective which relates to sustainability and besides profit making. Customer engagement is positive, but relatively low, suggesting customer participation would require more active encouragement than mere awareness or endorsement.

Reliability results suggests that the measures are internally consistent. The composite mean scores can be used for the later statistical analysis since all Cronbach alpha coefficients exceed .70. Due to this, mediation and regression analysis require reasonably reliable measures of the constructs. In real life primary research, reliability should be supported with a confirmatory factor analysis or PLS-SEM measurement-model assessment (composite reliability, average variance extracted, discriminant validity, and diagnostics for common-method bias).

The correlation matrix demonstrates that the constructs have positive relationships. There is a strong correlation between circular economy marketing practices and brand purpose and customer engagement, suggesting that circular messages can influence both meaning and engagement. Consumer advocacy shows a strong relationship with all three predictors, which indicates that having a circular practice, perceived brand purpose, and engagement leads to advocacy. Brand confidence and motivation to speak positively towards a brand should be positively correlated with advocacy. This correlation makes theoretical sense.

Multiple regression analysis indicates that marketing practices of circular economy, brand purpose and customer engagement jointly predict consumer advocacy. Even with the inclusion of brand purpose (BP) and customer engagement (CE) in the model, the direct effect of circular economy marketing practices (CEMP) remains substantial. According to the analysis, customer engagement and brand purpose most influence brand equity. This suggests purpose is meaningful but engagement is the potentially more immediate behavioural channel through which circular marketing becomes advocacy.

The results of bootstrap mediation confirm both mediation hypotheses. The indirect effect via brand purpose is positive and statistically significant, as the confidence interval does not include zero. The customer engagement indirect effect is also positive and significant with a relatively stronger magnitude. Thus, the results are in line with H1 to H7. According to the model, marketing practices of circular economy influence consumer advocacy through three routes–a direct route, a meaning-based purpose route, and a participation-based engagement route.

11. Examination/Dialogue

Results are in line with recent sustainability marketing literature that views consumers as active players not as passive receivers of environmental claims. According to White et al. (2025), sustainability marketing has embraced the circular economy, ethical sourcing, and transformative changes at the system level. The current framework supports this idea that the relationship between circular economy marketing practices and advocacy is influenced by its purpose and engagement according to the interpretation. This supports that

the marketing of circularity should combine credible information and relational value. The signalling theory can be used to explain the positive relationship of circular economy marketing practices and consumer advocacy. Using techniques like reuse, repair, and recycling, take-back programmes and waste-reduction communication can signal the brand's environmental credentials. Nonetheless, consumers are often doubtful of sustainability claims. As such, the brand purpose becomes an important interpretative mechanism. The paper by Walter et al. (2024) shows an authentic purpose-oriented brand enhances credibility whereas performative brand communication damages credibility. The results of this study found that brand purpose has mediation effects in this study. Consumers see circular practices as generating advocacy only when they think they are rooted in genuine purpose rather than mere opportunistic marketing. The importance of customer engagement roles is even more. According to a study, engagement behaviour is vital for green brand outcomes and is a key concept in relationship marketing. This was revealed by Leckie et al. (2021) and Lim and Rasul (2022) respectively. Marketing for a circular economy often relies on involvement by customers, for example returning products for reuse, dealing with repairs, refilling, and product-life extension campaigns. Engagement thereby turns circular message into behavioural involvement. The finding that the mediation pathway through engagement is stronger suggests that advocacy depends on the customer's experience of being involved.Findings also related to consumer behaviour research in circular economy. According to Vidal-Ayuso et al. (2023), it's important to understand how consumers are influenced in order for systems of the circular economy to work. The current research identifies brand purpose and engagement as two mechanisms likely to reinforce circular consumer responses. According to Coderoni and Perito, acceptance of circular products depends on consumers' perceptions and psychological factors. The study further implies that supporting circular brands depends on the perceived purpose and participation and not merely exposure to circular claims. The findings also add to the sustainable marketing and loyalty literature. According to Jung et al. (2020) and Rastogi et al. (2024), sustainable marketing practices are capable of supporting the brand image and customer outcomes. The present paper moves the focus from loyalty to advocacy, which is more socially visible and is underlying the diffusion of circular economy practices. Advocacy has value as it allows consumers to become informal communicators of circular value. In sustainability markets rife with greenwashing worries, the presence of consumers can increase credibility and lessen the pressure on firm-controlled communication.

12. Managerial Implication.

First, brands should design circular economy marketing campaigns around concrete practices rather than vague environmental language. Consumers ought to understand how the brand tackles its waste, extends product life and enables repair, uses recycled inputs and/or supports reuse. In order to facilitate consumer involvement, circularity must be delegitimized in operational terms within the market.

Moreover, circular economy communication must connect with genuine brand purpose. Purpose shouldn't be a marketing message. It must rest on consistent behaviors, transparent proof, and internal coherence. When brands communicate purpose without operational proof, consumers may interpret this as greenwashing or purpose washing. A realistic rationale statement should make clear what broader social or environmental contribution circular practices make.

Additionally, brands should create customer engagement in circular campaigns. You can create engagement via repair workshops, take-back drives, refill stations, recycling challenges, user-generated content, loyalty rewards for circular participation, and transparent updates on environmental outcomes. These actions encourage consumers to believe in the efficacy of their actions. It also aids in creating positive WOM and recommendations.

Brands should promote consumer advocacy too. You can help make this impact advocacy by making circular participation shareable, ensuring that sustainability stories are clear, recognising customer contributions, and creating community. Brands need to provide customers with direct, credible, and easy-to-explain messages so these customers can become credible ambassadors of the brand. Fifth, managers should analyze circular marketing performance beyond sales. Some metrics can be if consumers are engaging with the circular content, number of returning products, number of participating in repairs, number of refill adopters, customer sustainability content creation, advocacy intention, referral behaviour, and trust in circular claims. These metrics offer a better understanding of how circularity impacts consumers and brands.

13. Theoretical Consequences.

The study's findings contribute to sustainability marketing theory through the concepts of circular economy marketing and consumer advocacy. It shows that advocacy can be conceived of as the result of circular economy marketing and not just as a loyalty or communication construct. This broadens sustainable market outcomes from being purchase-centred to also include pro-brand behaviour.

The article presents new research to suggest that purpose isn't simply an antecedent or a variable of brand identity but rather a mediator. As per the results, purpose is capable of explaining meaning making of circular practices. Recent arguments have confirmed that brand purpose must connects to the consumer value, corporate action, and social relevance. (Fernandes et al., 2024; Williams et al., 2022).

The research adds to the body of work on customer engagement by suggesting that engagement may be an especially powerful pathway in circular economy contexts. Circularity entails that consumers must do something with the brand, not just believe something about the brand. Engagement thus connects circular marketing to advocacy as a participatory mechanism.

14. Limitations of the Study Above

The dataset is a simulated dataset for educational purpose, that's the main limitation. The results should not be considered as genuine consumer proof. The relationship observed in controlled experiments may differ from the real world. A second limitation is the cross-sectional nature of the design. Causal inference cannot be made, nor can changes over time be examined. As consumers become more familiar with repair, reuse, refill, or take-back systems, they may participate in a circular economy.

In addition, the research study uses self-reported Likert scale measures. Sometimes in actual research the self-report responses adversely affected due to social desirability bias, common-method variance, and limited recall. The proposed sample design uses convenience sampling, which limits generalisability. Fifth, the model does not take into account moderators like those of environmental concern, scepticism, income, product category, convenience, perceived price fairness, and prior experience with circular products. Strength of the proposed relationships could change through these variables.

15. Future Research Directions.

The proposed model should be tested on real primary data from consumers in different cities, product categories and income segments in the future. Researchers could compare the fashion, electronics, food, personal care, and consumer durables sectors as circular economy practices differ across categories. Repairing and reselling items may be most pertinent to electronics and fashion, while refilling and packaging reduction may be more relevant to personal care and food retail.

It will be interesting to have longitudinal research on whether circular economy marketing engenders sustained engagement and advocacy over time. Experimental designs could test how different message types (information-based, emotion-based, and action-oriented circular communication) influence perceptions of purpose and advocacy. Future research may also apply structural equation modelling to assess measurement validity and evaluate the efficacy of partial mediation and serial mediation models.

16. In summation

The study explored the link between circular economy marketing practices and consumer advocacy, while brand purpose and customer engagement acted as mediators. The study proposed that circular economy marketing can generate advocacy directly through the signalling effect and indirectly through stakeholder and consumer-brand relationship perspective. A simulated dataset of 300 respondents with academic survey data was utilized to exemplify the methods of descriptive, reliability, correlation and regression analyses and bootstrap mediation analysis.

The findings indicate that marketing practices adopting the circular economy can positively relate to consumer advocacy. In addition, it significantly predicts brand purpose and customer engagement. Advocacy benefits positively from the brand purpose as well as customer engagement. According to the mediation analysis, both brand purpose and customer engagement have significant indirect effects. The strength of the customer engagement pathway indicates that circular economy marketing may be most effective when customers engage with brands on sustainability.

According to the study, marketing in the circular economy should not be confined to product labels and such other environmental messages. Brands need to convert their circular practices into a genuine purpose and meaningful engagement opportunities for the consumers to create advocacy. Purpose enables consumers to appreciate the significance of a brand's circular actions. Engagement enables consumers to participate and share. The mechanisms can combine to turn marketing of circular economy into voluntary support.

This paper provides an integrated framework for future empirical research and offers managers a practical basis on which to design circular campaigns intended to foster trust, participation, and advocacy.

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