**International Insurance Law Review**
**ISSN: 0968-2090**
**Vol 34 S1 (2026): Special Issue**
https://lumarpub.com/iilr

# Marketing and Consumer Engagement for Circularity

**Dr. M. Sudha[1], Dr. C. Kandasamy[2], Dr. U. Jawahar Supraveen[3], Ms. Niranchana Shri Viswanathan*[4]**
[1]Associate professor,[2]Professor,[3]Associate Professor,[4]Assistant Professor
[1] Department of Commerce and Management, Presidency College, Hebbal, Bengaluru, India
[2,3,4]School of Management Studies, Sapthagiri NPS University, Bengaluru, India.
[4]E- mail: niranchanaphd@gmail.com
ORCID ID: [3]**0009-0009-0469-4306**, [4] **0000-0003-3342-3352**
***Correspondence Author**

**Abstract**:
This paper investigates the importance of marketing strategies indriving and popularizing circular economic practices through changing consumers' behavior of recycling, reusing or repurposing products. Somesensitize themselves to the prevention of waste and suggest ad hoc campaigns for specific publicity to bring environmental benefits and economic benefits in favor of promulgating a kind of circular economy. The project resilience study hopes to motivate wider adoption of responsible environmental behaviors. In parallel uses influencer collaborations, brand partnerships and experiential events. Case studies in the paper also provide practical examples of what companies did to introduce circularity into their marketing and offer courses on driving sustainable consumer behaviors. Finally, the research looks at how socialmedia and digital platforms can promote sustainability by driving consciousness and community-building. Sentiment analysis is used in social discussions and responses from customers to identify publicsentiment which can be used by the marketers to adjust your messaging, contrary to confirmation bias. This research provides concrete evidence with the case study how eco wear impact the economy, with cost benefits, data-based strategies to increase consumer engagement and help us movetoward a sustainable circular economy.
**Keywords:** Analyzing Consumer Sentiment, Circular economy, consumer initiative, Consumer Practices, Eco-Wear, Engaging Consumers, Reducing Waste, Re-use, Strategic Marketing, Sustainable,

## INTRODUCTION

Global information has become widely available, and globalization has also changed business practices everywhere. These changes have been interesting avenues of research in marketing economics and consumer behavior. (S. B. G. da Silva et al., 2024)Like a bird's nest which interweaves various materials together, the addition of different data silos over time called for stronger computational power.(Corsini et al., 2024) This means that more advanced techniques, like sentiment analysis of text data or looking at network properties and rules are critical to understanding consumer behavior in a deeper way. And then, we provide a case in which our target is to adopt sentiment analysis towards the views expressed by consumers on sustainable behaviours recycling-re-use-and-repurpose; that are pillars of circular economy.(Sharkasi et al., 2025) Data (customer reviews, surveys, social media conversations) will allow us to identify how consumers engage around circular economic initiatives. Its main purpose is to analyze the effects of consumer perceptions about


Citation: Sudha, M.; Kandasamy, D.; Supraveen, U.J. & Viswanathan, N.S. (2026). Marketing and Consumer Engagement for Circularity. *International Insurance Law Review*, 34 (S1), 452-468.

sustainability on their consumption and seek heuristics that activate them. Sentiment analysis allows to surface how consumers feel about sustainability overall or in specific arenas. (Abdelmeguid et al., 2024)Knowledge of these patterns will assist us in finding out what makes some or other factors restrict the adoption of circular economic behaviors by consumers.(A. da Silva & Cardoso, 2024) Finally, this research might yield lessons and perspectives for companies who wish to promote sustainable consumption or policymakers aiming at broader circular compliance.

The aim of this paper is to better understand why consumers are not already partaking in the circular trend, (Alka et al., 2024)i.e., what prevents them from adopting ways they characterize as business models that would most positively align with "circularity": assuming an absence of knowledge and a clear reward for choosing 'circular' products (e.g. via greenwashing being omnipresent), (Kamboj et al., 2018)we posit several benefits-based based hypotheses; reaching further into theories suggested by previous conceptualizations on how(Dhir et al., 2020) pro-environmentally supportive trends can reach mainstream adoption or claiming explanations necessary to meet rising standards but counted significant if it separates actual acceptance. (Trivedi et al., 2018)-internal-already included Meanwhile, the chances of most voters getting to know how circular products (a reconditioned phone or a second hand two blades sweater) could represent as much if not more value than what is commonly available linear services in economies out there are slim.(Kareena & Kumar, 2019). The gap in understanding is the biggest obstacle to making consumers more sustainable. This paper presents different marketing strategies to solve these problems and enhance consumer interaction with(Jain et al., 2017) circular products. This includes things like educational campaigns targeted at consumers in plain language explaining circular products benefits. Local ad campaigns should highlight the performance characteristics of (Sairanen et al., 2021) circular products in terms of durability, (Arun et al., 2021)savings, and environmental benefits. Transparency is also the critical countermeasure against greenwashing. However, consumers(Ali & Sudan, 2018) need open and transparent visibility of sustainability information on the products they purchase. Certified eco-labels, transparency to the consumers regarding life cycles materials and recyclability. A glaringly obvious approach is to incentivize our loyalty mechanics to encourage circular behaviours. people who recycle or purchase pre-owned items may even be offered bonus offers in the form of discounts, or points which could then eventually lead to other rewards.(Bamel et al., 2021)

This type of positive reinforcement will result in repeated behavior and combat the notion that circular products are inconvenient or second tier. Co-ownership schemes, such as rental leasing beyond traditional ownership must be incentivized. Additionally, these fashions in the reduction of waste and a variety for consumers to shop at the lowest price. (Ramamoorthy et al., 2019)This paper forms one of the main current sentiment analysis methods on consumer behavior and feedback towards circular products. This will allow for more comprehensive customer sentiment (Seth et al., 2020)analysis to help us understand what the public perception is. A thing which adds to aspects of sentiment analysis(Abdullah & Naved Khan, 2021) is that it can tell you what type of element should be produced, whether lower cost or higher quality items are more likely to generate consumer pleasurable feelings…or the question of environmental (things with less negative for



Citation: Sudha, M.; Kandasamy, D.; Supraveen, U.J. & Viswanathan, N.S. (2026). Marketing and Consumer Engagement for Circularity. *International Insurance Law Review*, 34 (S1), 452-468.

surrounding) qualities instead. (Kaur et al., 2020)Overall, the paper exemplifies data-driven support (sentiment analysis) to augment consumer engagement with circular economic initiatives. By unpacking the barriers to adoption and developing laser-like marketing solutions, business owners can be catalysts for sustainable consumption that drives us forward toward a more circular economy.

**Integrating Marketing Theories into Practice**

Inclusion of theoretical perspectives provides greater insight into consumer behavior when adopting circularity.

**Theory of Planned Behavior (TPB)**

There are many factors that trigger consumers to circular actions: There are positive attitudes (such as believing that recycling benefits the environment),Behavior is positively influenced by subjective norms (i.e., other people's opinions, e.g., peer pressure or normative belief),Perceived behavioral control is high (e.g., ease of returning clothes or the ability to recycle).Eco Wear's educational initiatives and return programs are consistent with TPB because: Shaping positive attitudes through awareness, Shaping norms with storytelling on social media, Improving control by making it easy to participate (savings, lack of hassle).

**Stimulus–Organism–Response (SOR) Model**

Stimulus: Brand campaigns, eco-labels Organism: Affective and cognitive response (guilt, pride) Response: Purchase or reuse behavior This framework can be utilized to improve messages and channels according to anticipated consumer triggers.

OBJECTIVE

**Assess Consumer Sentiment Around Circular Practices:** Assess the feelings and emotional responses of consumers to circular measures, i.e., recycling (circular economy), as well as reusing or repurposing to close loops for environmental conservation via broad sentiment analysis from social media conversations, customer reviews along with survey outcomes.

**Understand what hinders consumers from engaging with circular economy models:** Investigate the main barriers that prevent consumption-side involvement in "circular" business—understood here as lack of awareness, greenwashing practices, and perceived inconvenience.

**Assess the success of educational campaigns:** The effectiveness of a purposive educational implementation to public attitudes and awareness concerning sustainability practices was Studies.

**SENTIMENT ANALYSIS APPROACH**

The current research seeks to analyze the sector from a consumer point of view using sentiment lags in four variables: recycling, reuse as applicable practices within functional/circular economy. Sentiment analysis offers insights into the emotions behind specific feedback (Melkonyan et al., 2020)— understanding motivations and what inspires consumer engagement (or not) to act. Revisiting this reasoning from an analytical viewpoint(Jebarajakirthy et al., 2021) provides a clearer image of the positive reinforcement related to structural reactions, such as happiness or satisfaction towards circular goods that encourages consumer engagement and also suggests negative(Kumar et al., 2021) feedback


Citation: Sudha, M.; Kandasamy, D.; Supraveen, U.J. & Viswanathan, N.S. (2026). Marketing and Consumer Engagement for Circularity. *International Insurance Law Review*, 34 (S1), 452-468.

due to adverse emotions including product quality/ convenience in natures where complicates broad-scale adaptation view through social media content analysis along with customer review surveys. (Varsha et al., 2021)Identify the use cases that need strategic attention, enabling marketers to make data driven changes in messaging strategies through sentiment analysis which aligns consumers with circular economy initiatives. (Zhou et al., 2020)Here then, I hope to develop several definitions that will demystify the thought on how one takes an approach in analyzing sentiments.(Kanta et al., 2021)

Represent by C and the corresponding counterfeit review is denoted as C′, which refers to input a genuine consumer (Goyal et al., 2021)Here, instead of addressing the positive change in sentiment scores and Ai value into C′ from C (previously mentioned as let j be the sentiment score to aspect of specific (i.e.., Ai value j), tempting to view them directly .(Akter et al., 2021) p (Ai, j) Sentiment score of the aspect Ai > non-contained phrase p in review C (measure sentiment). The term p (Ai, j) is an approximation we always use to make the probability from C′→C more likely but only as long a C' would be preferred to have their p'(Ai)>score correlation reduced compared to C's.p (Ci, j | Ai) stands for the ratio of sentiment evaluations along with j(the valuation of aspect Ai in review C), to those improved over competitor - C′. However, given p(Ci,j|Ai) we can compute the probability that a positive sentiment change is necessary by consideration twice in both cases only from C′ (which differs of Ai), which will be would eventually appear at c.

Conversely, from the ranking schema established by Million (which only generates high-supporting scores that converge to some finite threshold), we can partition a million as:

n (Ai, j): The probability that rating attribute with aspect Ai is less good than the most relative review C′ of sentiment score.n (Ci,j|Ai): this represents the probability that both sentiment score and value of j are less than from its most similar review C′ sentiment type, aspect value.

By performing sentiment analysis, the result will be 2 quantitative results (Positive: Negative) from a single dimension Ai, where for each value ( j Ai = n). Here, positive reinforcement will be marked as: This variable is a measure of the likelihood that the change in positive sentiment score was caused in sentiment scores with respect to when each individual dimension won, (lost). Analogs of this relation occur in the case of reinforcement, which is classified by its functional relationship: positive reinforcement and negative reinforcement.(Tomar et al., 2022)This explains the impact that decreasing the value of this dimension has in reducing our sentiment score. In the framework of sentiment analysis, it is assumed that differences in mean sentiments are due to changes in dimension scores as well and only attribute values with mood congruent valences should be considered important.(Dwivedi et al., 2021)

**Example of Sentiment Analysis**

Methodology In this paper consumer sentiment has been studied in a circular fashion i.e. with the reference to Circular Product as sustainable apparel. With sentiment analysis from review text well gather these data as no longer handiest features also best scores, including environmental friendliness but additionally negligible laugh out of character role ribbons.

The Mega-Challenge, scenario 3: Consumer assessments of a durable T-shirt and practical



Citation: Sudha, M.; Kandasamy, D.; Supraveen, U.J. & Viswanathan, N.S. (2026). Marketing and Consumer Engagement for Circularity. *International Insurance Law Review*, 34 (S1), 452-468.

implications CCC Review: “It feels like a quality t-shirt, the price is reasonable” (Sentiment score = 8) C′ = “The fabric looked very cheap, and it was ridiculously pricey.” (Sentiment score = 3)

The use of nature inspired sustainable fashion appears to be in initial stages, which is why we have chosen circular product durable T-shirts as the focus for this paper, where we apply sentiment analysis. (Talwar et al., 2021)This analysis investigates consumer sentiments that are derived from the review text focusing on positive and negative sentiment with respect to product features.

The key attributes taken into consideration include not just the usual quality checks as in the case of touch and cost of clothing but environmental sustainability factors such as sustainability etc. (Zaman et al., 2021)It analyzes this high and low sentiment to have a complete view of consumer expectations. An example is,(Paul & Bhukya, 2021) 'This T-shirt is great quality, durable and priced to sell,' which communicates satisfaction with the consumer with respective sentiment scores of eight. In contrast, another (negative) review rates the product poorly with a sentiment score of 3 for using low-quality and overpriced fabric.(Lim et al., 2022) Such an approach, therefore, offers Circular Fashion Projects tangible insights from consumers that assist businesses in product refinement and address concerns continuously in a sustainable and consumer-driven way.(Jayawardena et al., 2022)

**Feature Values:**

The quality assessment for C (A1) is quantified as 9 (indicating high quality).
The quality assessment for C′ (A1) is quantified as 4 (indicating low quality).
The pricing assessment for C (A2) is quantified as 7 (indicating fair pricing).
The pricing assessment for C′ (A2) is quantified as 2 (indicating excessive pricing).

**Calculating Sentiment Probabilities:**

Positive Sentiment Reinforcement for Quality (U1, 9):

The likelihood that the quality assessment of 9 in review C surpasses the quality assessment in C′ (which is 4) can be expressed as: P(A1,9) = P (A1=9 | A1′=4) (This value is derivable from empirical historical data).Assuming p(A1,9) is equal to 0.8, we can state: The likelihood that both the sentiment score and the quality assessment in review C exceed those in C′ is substantial. Assume p(Ci,9 | A1) = 0.75.Consequently, the computation of positive reinforcement is articulated as follows:

Negative Sentiment Reinforcement concerning Price (D2,2): The likelihood that the price score of 2 in review C' is inferior to the price score in review C: N(A2,2) = P (A2=2 | A2′=7) (This value can also be extrapolated from historical datasets)

**Assume n(A2,2) = 0.7.** The probability that both the sentiment score and the price score in review C' are less than those in review C:

**Assume n (Ci,2 | A2) = 0.65.** Accordingly, the measurement of negative reinforcement would be defined as For this illustrative case, we unpacked the type of sentiment analysis methodology that can be used to measure consumer perceptions empirically. U1, nine is a positive reinforcement (i.e., quality correlates with positive sentiment) and D2, two is negative reinforcement (price normalization causes adverse sentiments). While these insights can influence a marketing strategy to boost consumer engagement with circular products.


Citation: Sudha, M.; Kandasamy, D.; Supraveen, U.J. & Viswanathan, N.S. (2026). Marketing and Consumer Engagement for Circularity. *International Insurance Law Review*, 34 (S1), 452-468.

On the other hand, for designing meaningful marketing strategies in sentiment analysis, it is imperative to understand how consumer feedback is related with many product aspects. The analytical framework is based on the computation of two main reinforcement variables: upward U i,j and downward D i, j reinforcements .

Upward Reinforcement (Ui, j)

How we can show upward reinforcement in mathematical way: Where.

P (C| A): the conditional probability that a favorable alteration in consumer sentiment occurs, if feature value Ai rises at j P(A) : this denotes to the defined-value-j distribution of substance-skill i;

This equation at its root quantifies the probability of a consumer's sentiment being bolstered with an improvement in each attribute. Say Ai represents the quality of a product and j denotes an upper quality score, Ui, j would give us how likely it is for customer sentiment to be positive when the quality goes UP. These results now suggest that the enhancement of this is perceptibly important to.

users This equation represents the probability that a consumer's sentiment has an internal upgrade in response to some change of property, positively. Higher U i, j indicates it is a desirable attribute to increase consumer satisfaction. Downward reinforcement (D i, j)Downward reinforcement is given the mathematical formulation:

Where: P (C| A) — a conditional probability that the negative shift in C occurs when there is decrease on level j of attribute value A i P(A)i -- associated with defined state for feature.

A large D i, j suggests that decreasing attribute importance would reduce consumer evaluations.

Application in Sentiment Analysis

This is illustrated in a theoretical look at consumer responses to the product “sustainable t-shirt” as laid out by these formulas. Each attribute (quality, price, environmental impact) has an associated feature. value of j and D i,j

describes the information gained from scrutinizing customer reviews about those features which allow us to interpret this human sentiment analysis.

Therefore, we MAP out the following scenarios based on feedback from customers.

This T-shirt has become much cherished, the look and fitness are great combined with its amazing quality at a deal of a price. And those evaluations will be positive, and this strengthens the score for price vs quality. On the other hand, another customer states that it is overly overpriced and poorer quality. This feedback will be used for the downward reinforcement calculation, so that it includes impacts from behaviors where increased prices will not go well with consumers. And up and above the digital tools we use, new technology like 3D printing and biotechnology present chances.

3D Printing: Enables localised, on-demand production using biodegradable or recyclable materials—reducing material waste and inventory.

Example: Adidas Futurecraft 4D shoes and partialy recyclable materials with 3D tech.

Biotechnology: Biofabrication of textiles (mushroom leather, algae fibres) provides bio-based textiles which are renewable and can be composted. This concept would allow for design for disassembly, customization, and reduced material waste — all critical for the future circularity of products.



Citation: Sudha, M.; Kandasamy, D.; Supraveen, U.J. & Viswanathan, N.S. (2026). Marketing and Consumer Engagement for Circularity. *International Insurance Law Review*, 34 (S1), 452-468.

**Insights from Reinforcement Factors**

The values from Ui, j and Di, j are key in understanding how unique features impact consumer sentiment. Therefore, if U quality is much percent more than the We must focus on producing low-level products instead of running after all sorts of carousel orders! The larger the net is downward reinforcement for elevated pricing (D price), The higher sensitive consumers are to prices, which means adaptations in strategies ought to emphasize a value proposition. Bottom line The Count of this reinforcement and below reinforcing score counts a good yardstick as to compare the product features with sigh of consumer · Enterprises adopting these analytical frameworks would have an easier way to not sell those by engaging. This simply ensures that marketing decisions can and should be made such said data, leading to consumers' relevant output a necessity for any business seeking competitive advantage from the sellers.

**Table 1. Data collection technique authors work**

| Data Collection Technique | Description | Key Points | Benefits |
|---|---|---|---|
| **Surveys and Questionnaires** | Structured instruments to gather consumer-responded quantitative and qualitative data | Tailored online or face-to-face.<br>Use closed and open-ended questions.<br>Employ stratified randomsampling. | Provides quantifiable data.<br>Captures diverse consumer perspectives. |
| **Social Media Analysis** | Monitoring discussions andcomments on social media platforms. | Utilize sentiment analysistools.<br>Monitor relevant hashtags (e.g., #SustainableFashion). | Real-time consumer feedback.<br>Identifies trends in consumer sentiment. |
| **Customer Reviews and Testimonials** | Analyzing user-generated content on e-commerce sites. | Use web scraping techniques.<br>Conduct qualitative content analysis on reviews. | Insight into consumer experiences.<br>Identifies themes related toproduct perceptions. |
| **Focus Groups** | Facilitated | - Recruit a diverse | - Provides |
| Customer reviews and testimonials, as we know, are a user-generated content type that need scraping from e-commerce site pages. This allows researchers to do qualitative content analysis of experiences and wisdom consumers digest by extracting, categorizing and organizing reviews. Sentiment analysis analyzes comment topics and patterns in product-related terms, such as satisfaction levels, complaints or expectations about the quality of a product. It gives insights into consumer sentiment and ideates key aspects that require a tweak in product or marketing strategies. | | | |



Citation: Sudha, M.; Kandasamy, D.; Supraveen, U.J. & Viswanathan, N.S. (2026). Marketing and Consumer Engagement for Circularity. *International Insurance Law Review*, 34 (S1), 452-468.

Focus groups are mediating discussions that include finding different types of participants to gain various points of view. It offers deep insights into customer attitudes, motivations, and preferences. Focus groups also allow for in depth exploration of complex issues and provide a deeper understanding as to why consumers feel or act the way they do.

Customer reviews and testimonials help gain a deeper knowledge of consumer experiences and their view of the product. Researchers are using web scraping to collate enormous amounts of user-generated content from e-commerce platforms. These reviews are analyzed through qualitative content analysis to provide insights into common themes including factors of product quality, customer satisfaction and aspects for improvement [1]. Such an approach reveals trends about consumer sentiment that can then be used to guide product creation and marketing.

Focus groups, meanwhile, require a diverse group of participants to be recruited for more formalized discussion. Guided by a moderator, these sessions will probe into consumer attitudes/motivations/behaviors, creating an understanding and context that add depth to quantitative data.

| | | | |
|---|---|---|---|
| | discussions among a small group of consumers for in-depth qualitative insights. | group of participants.<br>- Use a skilled moderator to guide discussions. | nuanced understanding of consumer attitudes.<br>- Encourages interaction andexploration of thoughts. |
| **Case Studies** | In-depth examination of businesses that implement circular economypractices. | Identify diverse companies acrosssectors.<br>Use interviews and analyze marketing materials. | Practical insights into effective strategies.<br>Understand consumer engagement levels. |
| **Observational Studies** | Direct observation of consumer behavior in retail environments. | Observe interactions with circular products.<br>Conduct informal interviews during shopping. | Immediate feedback on consumer thoughts.<br>Insights into actual purchasingbehavior. |



Citation: Sudha, M.; Kandasamy, D.; Supraveen, U.J. & Viswanathan, N.S. (2026). Marketing and Consumer Engagement for Circularity. *International Insurance Law Review*, 34 (S1), 452-468.

**Table 1 above** showing data collection techniques employed to study consumer behavior associated with circular economic practices. This involves quantitative methods such as structured surveys and questionnaires, social media analysis to track real-time sentiment, or funneling customer reviews to comprehend user experiences. focus groups to generate in depth qualitative discussion and business case studies spanning companies which apply circular strategies. Observational studies: These investigations enable researchers to observe firsthand how consumers interact with goods. This is followed by a detailed description of each technique with its major points and advantages.

## CASE STUDY

### Circular Economy Practices at Eco Wear Consumer Behaviour

On the other note, Bengaluru based 'Eco Wear' is a success story that tells about actual changes in consumer thought process caused by circular economic practices. Eco Wear seeks to challenge the status quo of "take-make-dispose" (Ciumasu, 2024)driven by two initiative-taking entrepreneurs with a strong dedication towards environmental stewardship; it is our mission to make recycling, reuse, and re-purposing material concepts accessible. (Grimbert & Zabala-Iturriagagoitia, 2024a)This case will give us an insight into how Eco Wear with the innovative measures and community engagement has been successful in active consumer involvement for circular economy practices providing demonstrable opportunities pertinent to direct challenges, characteristics key as well as strategies indispensable credited towards refer table 2 below

**Patagonia (USA – Large Scale)**

Patagonia weaves circularity into its Worn Wear program, through which customers can exchange old gear for store credit. The company then repairs and resells the items, while discouraging waste and captivating consumers with environmental storytelling. A 20% lift in customer retention for Trust and Circular Loyalty programs came out of this effort.

**Mud Jeans (Netherlands – SME)**

Mud Jeans Mud Jeans has a “Lease A Jeans” model, which allows customers to lease organic denim. A year later, customers can return or switch the jeans for recycling. This has resulted in a closed-looped denim cycle saving 78% of water and 61% of CO2 compared with regular jeans production.

**Remake (USA – Non-profit)**

Remake is a non-profit with digital campaigns and sustainable brand ratings that educates consumers on the impacts of fast fashion. And they have convinced more than 100,000 consumers to experiment with slow fashion and have seen quantifiable gains in secondhand buying.

These case studies demonstrate how businesses in different industries leverage a range of approaches and mechanisms buy-back, leasing, educational to increase circularity.

**Circular Economy’s Role in Reverse Logistics:**

An Application Welcome to the 37th issue of The Journal of Returns: Dr. Wolf A. Zimmermann is your editor for this issue. Collen Nyanhongo your associate editor. Introduction In case you have been unaware of the last couple of years, the answer is the circular economy! Seriously, the concept of the circular economy is not new and it has been



Citation: Sudha, M.; Kandasamy, D.; Supraveen, U.J. & Viswanathan, N.S. (2026). Marketing and Consumer Engagement for Circularity. *International Insurance Law Review*, 34 (S1), 452-468.

around since the late 1970s but this concept has regained attention due to the green movement and holistic thinking. A simple definition for a very complex idea is that in a circular economy everything produced can be reused, repaired and recycled. Circular economy means reusing products and resources as many times as possible. Getting to a circular economy does not only mean saving resources but also generating less waste.

Advanced technologies are also integral for constructing efficient closed-loop systems in e-commerce.

**Internet of Things (IoT)**

Smart bins record returned items in real time.

Items of clothing or electronic devices can be tracked through reuse and recycle by using RFID tags.

Example: Zara employs RFID to optimize reverse supply chain in Europe.

**Artificial Intelligence (AI)**

Forecasting analytics of end of life returns and re-sellable product trends.

Conceptual: Machine learning model optimizes reverse logistics routes to improve carbon footprint. Chatbots help customers to schedule returns and learn about the re-use policies.

Implementation Plan Overview: Integration with warehouse management systems.

Real time monitoring by use of smart sensors. Teaching AI models with refund data to predict cyclic flows.

**Table 2: Factors and Practices of ecofriendly products Author work**

| Factors | Description |
|---|---|
| **Identifying of materials** | Eco Wear identified early on that convincing consumers to participate actively in a circular economic business model would be key, and this is not an easy task. The company had to undertake several measures for better customer involvement. |
| **Education and Awareness** | Conducted mass campaigns to teach and inform them of the environmental impact on fashion. |
| **Transparency** | Offering transparency about production processes and material sourcing, creating trust with consumers. |
| **Take-Back Program** | Launched a program that encouraged customers to return old Eco Wear garments and receive discounts on their next purchase. |
| **Community** | Including the model brainwashed by joint greater goods global sustainability. |
| **Engagement** | It gives positive impact on consumer model engagement |
| **Social platform Engagement** | Used social media to access customer stories promoting sustainable fashion. |


Citation: Sudha, M.; Kandasamy, D.; Supraveen, U.J. & Viswanathan, N.S. (2026). Marketing and Consumer Engagement for Circularity. *International Insurance Law Review*, 34 (S1), 452-468.

| | |
|---|---|
| **Quality Over Quantity** | Why we need to buy better more durable clothes than dispose of fashion. |
| **Strategic Marketing** | Use of long-term saving and sustainability benefit strategies. |

**Consumer Engagement Strategies**

Eco Wear knew that convincing customers to be part of a circular economy type approach in practice was not going to be straightforward. The brand used her various strategies to enhance customer engagement. Refer table 3 below

| **Strategy** | **Description** |
|---|---|
| **Education and Awareness** | Ran massive campaigns that educate people on the consequences of fashion consumption on our planet. |
| **Take-BackProgram** | Created a program where customers who brought in their old Eco Wear clothes would get discounts on future merchandise |
| **Community Engagement** | Viable local community dialog around sustainability by reaching the mental model explaining a collective greater good |
| **Social Media Storytelling** | Utilized social media to generate customer stories for sustainable fashion. |

**Table 3: Consumer Engagement Strategies authors work**

**Comparative Analysis: Industry vs. Agriculture in Circularity**

| Dimension | Industry | Agriculture |
|---|---|---|
| Job Creation | High in reverse logistics, repair | High in composting, agro-waste |
| Waste Utilization | Industrial recycling | Bio-fertilizer, organic inputs |
| Technology Use | AI, IoT, Robotics | Remote sensing, precision farming |
| Circular Inputs | Recycled parts | Organic waste reuse |
| Policy Support | Green manufacturing incentives | Sustainable agriculture subsidies |

**Impact on Consumer Behavior**

All good customers found a substantial change at Eco Wear effort towards this.

Consumers have been favorably impacted, as the strategies of Eco Wear played a pivotal function in pushing their behavior. Step One: Increased Awareness Polls documented that a significant increase in consumer ire toward the environmental devastation due to fast fashion was at hand. It has resulted in a much more thoughtful consumer sent bride beam.(Grimbert & Zabala- Iturriagagoitia, 2024b)

Second, Purchase Behaviour Shifts: Customers are purchasing less, and better quality as slow consuming vs fast buying becomes the norm they aspire to build sustainable wardrobes. refer **table 3 and 4** Finally, Cultural Change was identified as a significant impact. By educating



Citation: Sudha, M.; Kandasamy, D.; Supraveen, U.J. & Viswanathan, N.S. (2026). Marketing and Consumer Engagement for Circularity. *International Insurance Law Review*, 34 (S1), 452-468.

citizens on their earlier waste production, the program incentivized individuals to take more responsible action in their consumption and handling of waste.(Karman et al., 2024)

**Ethical Concerns & Solutions:**

| **Issue** | **Mitigation Strategy** |
|---|---|
| Data privacy | Anonymize user data, comply with GDPR |
| Algorithmic bias | Use diverse training datasets |
| Transparency | Explainable AI for decision justification |
| Manipulative marketing | Ethical guidelines for AI use in targeting |

**Table 4: Key outcomes included Authors work**

| **Outcome** | **Description** |
|---|---|
| Increased Awareness | The polls linked that to a big elevation in consumer anger over the ecological cost of fast fashion. |
| Shift in PurchasingHabits | We feel precise, Qualitative rather than Quantity moving from impulse to mindful. |
| Cultural Change | The program inspired users to take control of measuring the impact they have on trash production. |

**Challenges and Overcoming Resistance**

The eco-wear band took its prowess; it was no bed of roses especially with the myths surrounding sustainable fashion. On the other hand, some consumers who opposed circular principles were concerned that doing so would lead to higher prices. Eco Wear have overcome this by: refer table 5 below

| **Challenge** | **Solution** |
|---|---|
| **Perceived High Costs** | Once upon a time consumer grew with strategic marketing campaigns, which promoted good products for long-term savings. |

**Table 5: Challenges Authors work**

Through this Eco Wear case study, (Ahmad et al., 2024)Flatten identifies a business behaviour spectrum that could accelerate and enable quicker entry into the circular economy along with resistance from broader structural change noted through sluggish participation in ecosystem evolution line non- profit supported advocation for bolstered material recycling industrialization.

Leveraging its role in consumer education, community partnering and innovative take-away programs like this, the Eco Council aims to influence policy actions organizations should consider as they work towards improving sustainability.(Jiménez Romanillos et al., 2024) Wear has succeeded in changing the consumer behavior trend towards a sustainable life



Citation: Sudha, M.; Kandasamy, D.; Supraveen, U.J. & Viswanathan, N.S. (2026). Marketing and Consumer Engagement for Circularity. *International Insurance Law Review*, 34 (S1), 452-468.

fashion. The research determined that user-friendliness, the attractiveness of technology and well-timed marketing claims led to increased engagement from consumers but found an emphasis by brands on contributing consistent efforts toward circular-economy practices. (Suresh et al., 2024) .To that end, the case of Eco Wear illustrates a path forward perhaps other brands will also be able to emulate on their way to achieving some circular fashion future. How In Band Yards It Looks at Different Forms to Activism for Constituents and Consumers Can Bring About Sustainable Business Practices(Gomes et al., 2024)

## FUTURE RESEARCH DIRECTIONS

The extent and the characteristics of consumer participation as it runs alongside (and beyond) any brand marketing strategy might, in future research, be examined to address a question that looms large over theme: Future Consumer Demand for Circularity. What is clear from this paper is that there remains very much an 'open-ended problem' many complex interaction effects yet to play out. The effect of user-generated content and influencer culture on sustainability across these platforms Furthermore, longitudinal research on a larger scale can add knowledge regarding long-term changes of behavior regarding circular products. By exploring which demographic groups react, how and to what types of circular economy policies a more nuanced response can be developed. Fourthly, analytics and machine learning are used to predict consumer behaviours in the circular economy using behavioral theories for analyzing why one practice is more mostly adopted than other.

## CONCLUSION

It is possible to say that the circular economy it not only an economic model, but also a social change toward business and sustainability and consumption responsible. It has the potential to be quite quick consecutive (quick as it can possibly be) to program consumers (fast tracking their consumer on boarding), but this is extremely efficient totally leveraging all accessible-targeted marketing economic and environmental drivers they have built into a circular bunch of practices. Communication line. Cultural shift along the way. Please follow and like us: Save results Insight Report Brand trails in consumer skepticism about sustainability, yet transparency is key Related Topics: Culture, Marketing Daily Staff Print Article A lack of awareness accompanies consumers' perceptions that brands pushing being more sustainable are misdirecting attention away from their major profits. Brands like Eco Wear inform us that what we buy (if at all) should no longer be dictated by society but through a global understanding of product awareness, to percolate these clear thoughts about buying into the psyche and social spheres for sustainable changes come. Although this change is great for the individual consumer (cheaper, better), it aligns with a larger issue afflicting society: environmental degradation. The promotion of recycling, reuse and repurpose as a citizenship) instead of reducing social burdens through marketing or other typicality is attributed to the category Excessive packaging (and some others but also you can look for comparable results in other product categories. It comes with a myriad of wider social benefits rather than environmental gains alone, creating economic resilience, social equity, and uplifting empowerment. As the COVID-19 crisis has shown, we need businesses that can engineer waste out of their products and lead us toward responsible consumption. They are more likely to possess the kind of value



Citation: Sudha, M.; Kandasamy, D.; Supraveen, U.J. & Viswanathan, N.S. (2026). Marketing and Consumer Engagement for Circularity. *International Insurance Law Review*, 34 (S1), 452-468.

chains sustainable in nature, which facilitate a fair distribution of resources throughout economies. By thinking in a circular fashion, which gets us one step closer to paying the debt on how we pay for this book with our planet and creating an economy which is regenerative, abundant seeking attention rather than taxing people's time.

## REFERENCES

1. Abdelmeguid, A., Tsironis, G., Afy-Shararah, M., Tsagarakis, K. P., & Salonitis, K. (2024). Insights into sustainability and circular economy trends in luxury fashion: A LinkedIn topic modelling study. *Cleaner and Responsible Consumption*, *15*. https://doi.org/10.1016/j.clrc.2024.100228
2. Abdullah, & Naved Khan, M. (2021). Determining mobile payment adoption: A systematic literature search and bibliometric analysis. *Cogent Business and Management*, *8*(1). https://doi.org/10.1080/23311975.2021.1893245
3. Ahmad, S., Daddi, T., & Iraldo, F. (2024). Integration of open innovation, circularity and sustainability: A systematic mapping of connections, analysis of indicators and future prospects. *Creativity and Innovation Management*, *33*(3), 414–437. https://doi.org/10.1111/caim.12598
4. Akter, S., Dwivedi, Y. K., Biswas, K., Michael, K., Bandara, R. J., & Sajib, S. (2021). Addressing Algorithmic Bias in AI-Driven Customer Management. *Journal of Global Information Management*, *29*(6). https://doi.org/10.4018/JGIM.20211101.oa3
5. Ali, S. W., & Sudan, S. (2018). Influence of Cultural Factors on Impulse Buying Tendency: A Study of Indian Consumers. *Vision*, *22*(1), 68–77. https://doi.org/10.1177/0972262917750247
6. Alka, T. A., Raman, R., & Suresh, M. (2024). Research trends in innovation ecosystem and circular economy. *Discover Sustainability*, *5*(1). https://doi.org/10.1007/s43621-024-00535-5
7. Arun, T. M., Kaur, P., Bresciani, S., & Dhir, A. (2021). What drives the adoption and consumption of green hotel products and services? A systematic literature review of past achievement and future promises. *Business Strategy and the Environment*, *30*(5), 2637–2655. https://doi.org/10.1002/bse.2768
8. Bamel, N., Pereira, V., Bamel, U., & Cappiello, G. (2021). Knowledge management within a strategic alliances context: past, present and future. *Journal of Knowledge Management*, *25*(7), 1782–1810. https://doi.org/10.1108/JKM-06-2020-0443
9. Ciumasu, I. M. (2024). Eco-cities: Scenarios for Innovation and Sustainability. In *Green Energy and Technology: Vol. Part F3330*. https://doi.org/10.1007/978-3-319-14702-4
10. Corsini, F., Fontana, S., Gusmerotti, N. M., Iovino, R., Iraldo, F., Domenico Mecca, Ruini, L. F., & Testa, F. (2024). Bridging gaps in the demand and supply for circular economy: Empirical insights into the symbiotic roles of consumers and manufacturing companies. *Cleaner and Responsible Consumption*, *15*. https://doi.org/10.1016/j.clrc.2024.100232
11. da Silva, A., & Cardoso, A. J. M. (2024). Enhancing customer satisfaction through IIoT-Enabled coopetition: Strategic insights and impacts. *Internet of Things (The*



Citation: Sudha, M.; Kandasamy, D.; Supraveen, U.J. & Viswanathan, N.S. (2026). Marketing and Consumer Engagement for Circularity. *International Insurance Law Review*, 34 (S1), 452-468.

*Netherlands)*, *28*. https://doi.org/10.1016/j.iot.2024.101408

12. da Silva, S. B. G., Barros, M. V., Radicchi, J. Â. Z., Puglieri, F. N., & Piekarski, C. M. (2024). Opportunities and challenges to increase circularity in the product's use phase. *Sustainable Futures*, *8*. https://doi.org/10.1016/j.sftr.2024.100297
13. Dhir, A., Talwar, S., Kaur, P., & Malibari, A. (2020). Food waste in hospitality and food services: A systematic literature review and framework development approach. *Journal of Cleaner Production*, *270*. https://doi.org/10.1016/j.jclepro.2020.122861
14. Dwivedi, Y. K., Ismagilova, E., Hughes, D. L., Carlson, J., Filieri, R., Jacobson, J., Jain, V., Karjaluoto, H., Kefi, H., Krishen, A. S., Tran, G. A., & Wang, Y. (2021). Setting the future of digital and social media marketing research: Perspectives and research propositions. *International Journal of Information Management*, *59*. https://doi.org/10.1016/j.ijinfomgt.2020.102168
15. Gomes, L. A. D. V., Homrich, A. S., Facin, A. L. F., Silva, L. E. N., Castillo-Ospina, D. A., Trevisan, A. H., Ometto, A. R., Mascarenhas, J., & Carvalho, M. M. (2024). Enablers for circular ecosystem transformation: A multi-case study of Brazilian circular ecosystems. *Sustainable Production and Consumption*, *49*, 249–262. https://doi.org/10.1016/j.spc.2024.06.009
16. Goyal, S., Hu, C., Chauhan, S., Gupta, P., Bhardwaj, A. K., & Mahindroo, A. (2021). Social Commerce: A Bibliometric Analysis and Future Research Directions. *Journal of Global Information Management*, *29*(6). https://doi.org/10.4018/JGIM.293291
17. Grimbert, S. F., & Zabala-Iturriagagoitia, J. M. (2024a). Closing the loop without reinventing the wheel: public procurement for innovation promoting a circular economy. *Science and Public Policy*, *51*(3), 491–508. https://doi.org/10.1093/scipol/scad084
18. Grimbert, S. F., & Zabala-Iturriagagoitia, J. M. (2024b). Closing the loop without reinventing the wheel: public procurement for innovation promoting a circular economy. *Science and Public Policy*, *51*(3), 491–508. https://doi.org/10.1093/scipol/scad084
19. Jain, S., Khan, M. N., & Mishra, S. (2017). Understanding consumer behavior regarding luxury fashion goods in India based on the theory of planned behavior. *Journal of Asia Business Studies*, *11*(1), 4–21. https://doi.org/10.1108/JABS-08-2015-0118
20. Jayawardena, N. S., Ross, M., Quach, S., Behl, A., Gupta, M., & Lang, L. D. (2022). Effective Online Engagement Strategies Through Gamification: A Systematic Literature Review and a Future Research Agenda. *Journal of Global Information Management*, *30*(5). https://doi.org/10.4018/JGIM.290370
21. Jebarajakirthy, C., Maseeh, H. I., Morshed, Z., Shankar, A., Arli, D., & Pentecost, R. (2021). Mobile advertising: A systematic literature review and future research agenda. *International Journal of Consumer Studies*, *45*(6), 1258–1291. https://doi.org/10.1111/ijcs.12728
22. Jiménez Romanillos, E., Williams, H., & Wever, R. (2024). Unpacking Behaviours: A Literature Study and Research Agenda on Consumer Behaviour in Packaging-Free Systems. *Packaging Technology and Science*, *37*(9), 821–840.

https://doi.org/10.1002/pts.2825

23. Kamboj, S., Sarmah, B., Gupta, S., & Dwivedi, Y. (2018). Examining branding co-creation in brand communities on social media: Applying the paradigm of Stimulus-Organism-Response. *International Journal of Information Management*, *39*, 169–185. https://doi.org/10.1016/j.ijinfomgt.2017.12.001
24. Kanta, K. N. M., Kaurav, R. P. S., Allam, U. S., & Srivalli, P. (2021). WILDLIFE TOURISM: A SYNTHESIS OF PAST, PRESENT, AND FUTURE RESEARCH AGENDA. *Enlightening Tourism*, *11*(2), 390–427. https://doi.org/10.33776/et.v11i2.5117
25. Kareena, & Kumar, R. (2019). A consumer behavior prediction method for e-commerce application. *International Journal of Recent Technology and Engineering*, *8*(2 Special), 983–988. https://doi.org/10.35940/ijrte.B1171.0782S619
26. Karman, A., Prokop, V., & Lopes de Sousa Jabbour, A. B. (2024). Circular economy practices as a shield for the long-term organisational and network resilience during crisis: Insights from an industrial symbiosis. *Journal of Cleaner Production*, *466*. https://doi.org/10.1016/j.jclepro.2024.142822
27. Kaur, P., Dhir, A., Singh, N., Sahu, G., & Almotairi, M. (2020). An innovation resistance theory perspective on mobile payment solutions. *Journal of Retailing and Consumer Services*, *55*. https://doi.org/10.1016/j.jretconser.2020.102059
28. Kumar, M., Paul, J., Misra, M., & Romanello, R. (2021). The creation and development of learning organizations: a review. *Journal of Knowledge Management*, *25*(10), 2540–2566. https://doi.org/10.1108/JKM-10-2020-0795
29. Lim, W. M., Rasul, T., Kumar, S., & Ala, M. (2022). Past, present, and future of customer engagement. *Journal of Business Research*, *140*, 439–458. https://doi.org/10.1016/j.jbusres.2021.11.014
30. Melkonyan, A., Gruchmann, T., Lohmar, F., Kamath, V., & Spinler, S. (2020). Sustainability assessment of last-mile logistics and distribution strategies: The case of local food networks. *International Journal of Production Economics*, *228*. https://doi.org/10.1016/j.ijpe.2020.107746
31. Paul, J., & Bhukya, R. (2021). Forty-five years of International Journal of Consumer Studies: A bibliometric review and directions for future research. *International Journal of Consumer Studies*, *45*(5), 937–963. https://doi.org/10.1111/ijcs.12727
32. Ramamoorthy, R., Soundarya, S., & Kumari, P. (2019). Customer satisfaction of different brands of Hero Honda motors at Rao & Khan motors, Krishnagiri. *International Journal of Recent Technology and Engineering*, *8*(2 Special), 389–394. https://doi.org/10.35940/ijrte.B1393.0882S819
33. Seth, H., Talwar, S., Bhatia, A., Saxena, A., & Dhir, A. (2020). Consumer resistance and inertia of retail investors: Development of the resistance adoption inertia continuance (RAIC) framework. *Journal of Retailing and Consumer Services*, *55*. https://doi.org/10.1016/j.jretconser.2020.102071
34. Sharkasi, N., De Maeyer, P., Lababdi, H. C., AlMansoori, S., & Agag, G. (2025). A sustainable step forward: Exploring factors influencing the purchase intentions towards remanufactured products using fsQCA. *Journal of Retailing and Consumer Services*,



Citation: Sudha, M.; Kandasamy, D.; Supraveen, U.J. & Viswanathan, N.S. (2026). Marketing and Consumer Engagement for Circularity. *International Insurance Law Review*, 34 (S1), 452-468.

*82*. https://doi.org/10.1016/j.jretconser.2024.104115

35. Suresh, R., Saha, P., & James, J. (2024). Handloom and resource equity - A circularity narrative from India in the Global South. *Journal of Cleaner Production*, *468*. https://doi.org/10.1016/j.jclepro.2024.143081
36. Talwar, S., Jabeen, F., Tandon, A., Sakashita, M., & Dhir, A. (2021). What drives willingness to purchase and stated buying behavior toward organic food? A Stimulus–Organism–Behavior–Consequence (SOBC) perspective. *Journal of Cleaner Production*, *293*. https://doi.org/10.1016/j.jclepro.2021.125882
37. Tomar, A. S., De, T., Prasad, K., & Soni, H. (2022). A CONCEPTUAL MODEL FOR BUILDING THE RELATIONSHIP BETWEEN AUGMENTED REALITY, EXPERIENTIAL MARKETING & BRAND EQUITY | UM MODELO CONCEITUAL PARA CONSTRUIR A RELAÇÃO ENTRE REALIDADE AUMENTADA, MARKETING EXPERIENCIAL & BRAND EQUITY | UN MODELO CONCEPTU. *International Journal of Professional Business Review*, *7*(6). https://doi.org/10.26668/businessreview/2022.v7i6.1030
38. Trivedi, R. H., Patel, J. D., & Acharya, N. (2018). Causality analysis of media influence on environmental attitude, intention and behaviors leading to green purchasing. *Journal of Cleaner Production*, *196*, 11–22. https://doi.org/10.1016/j.jclepro.2018.06.024
39. Varsha, P. S., Akter, S., Kumar, A., Gochhait, S., & Patagundi, B. (2021). The Impact of Artificial Intelligence on Branding: A Bibliometric Analysis (1982-2019). *Journal of Global Information Management*, *29*(4), 221–246. https://doi.org/10.4018/JGIM.20210701.oa10
40. Zaman, U., Bolia, B., & Anjam, M. (2021). Do women customers love to talk about financial brands? An empirical evidence on the mediated service responsiveness and brand sincerity in creating a positive word of mouth. *Cogent Business and Management*, *8*(1). https://doi.org/10.1080/23311975.2021.1945426
41. Zhou, F., Lim, M. K., He, Y., & Pratap, S. (2020). What attracts vehicle consumers' buying: A Saaty scale-based VIKOR (SSC-VIKOR) approach from after-sales textual perspective? *Industrial Management and Data Systems*, *120*(1), 57–78. https://doi.org/10.1108/IMDS-01-2019-0034



Citation: Sudha, M.; Kandasamy, D.; Supraveen, U.J. & Viswanathan, N.S. (2026). Marketing and Consumer Engagement for Circularity. *International Insurance Law Review*, 34 (S1), 452-468.