Consumer Perceptions and Market Potential for Circular Economy Laundry Detergents: Insights from UK Focus Groups

This report examines UK consumer attitudes towards circular laundry detergents, identifying key barriers to adoption and opportunities for behaviour change for developing a circular economy.

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About WRAP

WRAP is a global environmental action NGO transforming our product and food systems to create Circular Living. We examine sustainability challenges through the lens of people's day-to-day lives. We transform the systems that provide the products we consume. We catalyse action from policy makers, businesses, NGOs and citizens to make it happen.

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Front cover photography: The National Interdisciplinary Centre for the Circular Chemical Economy focus group discussion on circular laundry detergents in Edinburgh, Scotland. Date: 25 November 2024.

Executive Summary

Background

This study is carried out by the Interdisciplinary Centre for the Circular Chemical Economy (CircularChem), explores UK consumer attitudes toward circular economy laundry detergents. The aim is to identify barriers to adoption and potential motivators for switching to sustainable alternatives.

Key Findings

- Price remains the biggest barrier – Whilst consumers express interest in sustainability, they are highly price-sensitive and unwilling to pay a significant premium for eco-friendly alternatives. Cost competitiveness is crucial for mass adoption.
- Performance and brand trust drive purchasing decisions – Consumers expect circular detergents to match or exceed conventional products in cleaning effectiveness, scent, and packaging. Established brands hold a strong advantage in influencing behaviour.
- Low awareness and widespread scepticism hinder adoption – Many consumers are unfamiliar with circular detergents, and concerns about "greenwashing" lead to distrust of environmental claims.
- Retail visibility is a major obstacle – Limited availability and poor shelf positioning reduce consumer exposure to sustainable detergents, making them an afterthought rather than a viable option.
- Sustainability alone is not a compelling motivator – Whilst some consumers express environmental concerns, most prioritise cost, cleaning power, and convenience, suggesting that circular products need to align with existing shopping habits.

Opportunities for Change

- Lower prices or incentives could drive adoption.
- Mainstream brands should lead to build trust and credibility.
- Stronger retail presence and marketing are needed to improve visibility.
- Clearer messaging is essential to address scepticism and highlight benefits beyond sustainability.

Conclusion

Circular detergents remain a niche choice due to price concerns, low awareness, and trust issues. Adoption will require competitive pricing, brand endorsement, and improved communication to shift consumer habits toward sustainable choices.

1.0 Background

The Interdisciplinary Centre for the Circular Chemical Economy ("CircularChem") is a collaborative initiative uniting experts from academia, industry, government, NGOs, and the general public. CircularChem's mission is to transform the UK's £32 billion chemical industry into a future-proof, fossil-independent, and environmentally sustainable sector by developing innovative solutions for the efficient recycling and recovery of olefins and their complementary feedstocks (CircularChem, 2025a).

1.1 The Role of Olefins in the Chemical Industry

Olefins, such as ethylene and propylene, constitute over 70% of global organic chemical production and serve as fundamental building blocks for various industries. These compounds are essential for manufacturing *polymers* (e.g., plastics, synthetic fibres), *solvents*, *synthetic rubber* and *high-value specialty chemicals* (CircularChem, 2025b).

Despite their widespread use, end-of-life recovery of olefins remains extremely limited, with only a few selected chemical products undergoing mechanical recycling. This lack of resource recovery contributes to significant environmental waste, reinforcing the need for circular economy solutions.

1.2 Research Themes of CircularChem

CircularChem's interdisciplinary team, comprising researchers from eight UK universities and over 20 industrial and international partners[1], operates under three key themes:

1) Enabling Technologies for the Circular Chemical Economy: Developing advanced technologies for recovering olefins and complementary feedstocks from post-consumer and industrial waste.
2) Process Integration and Whole-System Optimisation: Enhancing the efficiency and scalability of circular processes by integrating recycling technologies into existing chemical production systems.
3) Policy, Society, and Finance: Addressing the economic, regulatory, and social barriers to circular chemical adoption, including business models, financial incentives, and public perception.

1.3 Why Laundry Detergents?

As part of its broader efforts to accelerate the transition to a circular chemical economy, CircularChem commissioned IBP Strategy & Research[2] to conduct a study on consumer attitudes

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[1] The partners are Cardiff University, Heriot-Watt University, Imperial College London, Loughborough University, Newcastle University, University of Liverpool, University of Sheffield and University of Surrey.

[2] IBP Strategy & Research is a Scotland-based consultancy specialising in quantitative research, focus groups, strategic analysis, and market evaluations. It serves public sector organisations and private consultancies, with a strong reputation for high-quality research and data-driven insights.

and purchasing behaviours related to laundry detergents. Laundry detergents were chosen as a case study because they:

- Are household essentials, meaning consumer choices significantly impact demand for chemical production.
- Consist of surfactants, polymers, and packaging materials derived from fossil feedstocks.
- Have limited recycling and reuse options, making them a prime candidate for circular innovation.
- Require consumer behaviour change to drive adoption of sustainable and circular alternatives.

By understanding consumer motivations, purchasing habits, and potential barriers to adopting circular laundry detergents, this study aims to provide actionable insights that inform industry and policymakers on strategies to promote circular consumer products.

2.0 Objectives

This study aims to explore consumer knowledge, motivations, and purchasing behaviours related to laundry detergents, with a particular focus on the potential for transitioning to circular economy products. To achieve this, a structured Topic Guide was developed by CircularChem, in collaboration with IBP Strategy & Research and with input from WRAP. The guide was designed to address key research themes across four areas:

1) Consumer Purchasing Habits and Influencing Factors
   - Understanding where, how, and why consumers buy laundry detergent.
   - Identifying brand loyalty patterns and the role of habitual purchasing in consumer decisions.
2) Motivations Behind Purchase Decisions
   - Exploring key factors driving the purchase choice.
   - Investigating perceptions of environmental sustainability and whether they influence decision-making.
3) Pricing Sensitivity and Consumer Perception of Value
   - Identifying the thresholds at which consumers perceive detergent products as too expensive or too cheap.
   - Assessing consumer attitudes toward circular detergents at different price points.
4) Barriers and Enablers to Circular Economy Adoption
   - Examining consumer resistance to switching from conventional to circular detergents.
   - Identifying potential incentives that could encourage behaviour change.
   - Assessing the role of brand trust, product performance, and marketing in shifting consumer preferences.

The study employed discussion prompts and self-completion exercises to capture both stated preferences and implicit attitudes. Insights from this research will inform strategies for improving consumer engagement with circular economy products, supporting industry innovation and policy development.

3.0 Methodology

3.1 Research Design

This study employed a qualitative research design using focus groups to explore consumer perceptions, motivations, and barriers to adopting circular economy laundry detergents. Focus groups were chosen as they enable interactive discussions, allowing participants to express individual preferences whilst also reacting to and building upon the perspectives of others. This approach provides rich insights into consumer attitudes and behavioural patterns, which are essential for understanding the challenges associated with transitioning to sustainable and circular economy products.

3.2 Participant Recruitment and Sampling Strategy

A purposive sampling strategy was implemented to ensure diversity in age, gender, household income, and family structure whilst maintaining relevance to the research objectives. Participants were required to have purchased laundry detergent within the past three months to ensure engagement with the subject matter.

Six focus groups were conducted across three locations in the UK — Edinburgh, Guildford, and Newcastle. The intention was to ensure as broad a range of regional perspectives as possible, ensuring that findings were not focused on a narrow geographical perspective. Each location hosted two focus groups, leading to a total of 54 participants. To ensure diversity, participant recruitment followed the criteria below:

- Age distribution: At least 3 participants aged 16-24, 3 participants aged 25-44, and 4 participants aged 45+ per group.
- Gender balance: At least 4 participants identifying as female and 4 as male per group.
- Household income: At least 4 participants per group with a monthly income after Income Tax, National Insurance and Council Tax under £3,000, and at least 4 participants earning above £3,000.
- Parental status: At least 5 participants with children under 16 in the household.

Despite last-minute dropouts and non-attendance, slight variations in participant demographics occurred, the final sample maintained a reasonable balance across the intended quotas (**Table 1**).

Table 1: The Distribution of Focus Group Participants

Age		
16-24	25-44	45+
12 participants	19 participants	23 participants
Gender		

Female	Male
36 participants	18 participants
Children Under 16 in Household	
Yes	No
25 participants	29 participants
Household's monthly income after Income Tax, National Insurance and Council Tax	
Under £3,000	Over £3,000
23 participants	31 participants

3.3 Data Collection Process

Each focus group session lasted approximately two hours and was facilitated by an experienced moderator.

3.3.1. Structure of Focus Group Discussions

Each focus group followed a four-phase structure:

1) Introductory Discussion: Understanding participants' current detergent purchasing habits, decision-making factors, and general attitudes towards laundry care.
2) Purchase Motivation Analysis: Deep dive into key factors influencing detergent choices, including brand loyalty, price sensitivity, environmental considerations, and sensory attributes (e.g., scent, texture).
3) Pricing Perception & Value Assessment: Evaluation of consumer pricing thresholds for conventional, sustainable, and circular laundry detergents, using price comparison exercises.
4) Barriers & Enablers for Circular Economy Adoption: Identifying factors that encourage or discourage the shift towards circular laundry detergents, including trust in brands, awareness of sustainability benefits, and willingness to pay price premiums.

3.3.2. Additional Data Collection Methods

To supplement qualitative insights, participants were required to:

- Submit photographs of their current laundry detergent products before the sessions, allowing researchers to classify them by product format and brand category.
- Complete self-assessment exercises during and after the discussions to quantify their attitudes toward price sensitivity, environmental impact awareness, and likelihood of switching to circular detergents.

The summary of participants' choice of laundry detergent by brand category is provided in **Table 2**.

Table 2: Participants' Choice of Laundry Detergent by Brand Category

Brand Category

Leading brand[3]	Other brand[4]	Retailer brand[5]	Tertiary brand[6]
26 participants	13 participants	8 participants	7 participants

3.3.3. Data Analysis Approach

All discussions were audio-recorded and transcribed verbatim to ensure accurate analysis. A thematic analysis approach was applied, involving:

1) Classifying participant responses into key themes related to purchasing motivations, price sensitivity, and sustainability awareness.
2) Comparing responses across demographics to identify patterns in consumer behaviour.
3) Examining variations across regions to assess whether local market conditions influence attitudes.

Whilst qualitative data is not statistically generalisable, the relatively large sample allows for meaningful insights. Numerical feedback from self-completion materials offers indicative trends but does not include margins of error. Findings reflect consumer perceptions at a specific time and may shift with evolving economic or environmental awareness. Additionally, responses may be influenced by social-desirability bias (Chung & Monroe, 2003).

3.3.4. Ethical Considerations

All participants provided informed consent before participation. Discussions were conducted in accordance with ethical guidelines for qualitative research, ensuring confidentiality, voluntary participation, and the right to withdraw at any time. Participants received a £50 incentive for their time and input.

[3] Either Ariel or Fairy, being the two leading manufacturer's brands.
[4] Other manufacturer's brands, including Bold, Daz, Smol and Surf.
[5] Included Asda, Lakeland and Tesco.
[6] Brands created by retailers, in this case including Almat (Aldi), Formil (Lidl) and Kirkland (Costco).

4.0 Methodology

4.1 Part A: Introductory Discussion

The initial focus group discussions served as an ice-breaker, helping participants familiarise themselves with the group environment whilst providing preliminary insights into their detergent purchasing habits. Paired participants discussed their most recent purchase, covering product choice, retailer selection, and decision-making factors. Key themes emerging from these discussions, include **price sensitivity**, **sensory preferences**, **convenience**, **environmental awareness**, and **brand loyalty**.

4.1.1. Price Sensitivity: The Dominant Purchasing Factor

Most participants identified price as a key influence, but not necessarily by choosing the cheapest option. Instead, they employed value-seeking strategies, such as:

- Bulk purchasing when discounts were available.
- Seeking promotional offers across retailers.
- Comparing price per wash rather than absolute price.
- Preferring major brands when on discount, but otherwise opting for alternatives.

These findings suggest that participants perceive price as an indicator of quality but actively seek affordability within their preferred brands.

4.1.2. Sensory Preferences: Scent and Skin Sensitivity as Key Factors

Beyond cost, scent and skin sensitivity were critical in purchase decisions. Participants preferred detergents with long-lasting fragrances, associating them with cleanliness. Common descriptors included “fresh”, “relaxed”, and “summery”.
Skin sensitivity was another key concern, particularly among those with children or allergies, leading many to opt for non-bio detergents to avoid irritation.

4.1.3. Convenience Considerations: Packaging, Storage, and Portion Control

A notable finding was that convenience played a significant role in determining detergent choice, as three key elements were frequently mentioned:

- Ease of use: Pre-measured pods were preferred for simplicity and portion control, reducing excess detergent usage.
- Storage considerations: Liquid and pod formats were favoured over powder due to spillages and bulkier packaging.
- Household safety: Participants with young children or pets expressed concerns about detergent packaging, preferring products with secure, tamper-proof lids.

4.1.4. Environmental Awareness: A Largely Ignored Consideration

Sustainability and environmental impact were rarely mentioned as primary purchase motivators. Only one participant cited using “Smol”, a detergent brand marketed for its eco-friendly credentials. However, this decision was attributed more to convenience of home deliveries during the COVID-19 pandemic than to environmental concerns.

The lack of spontaneous references to sustainability does not necessarily indicate indifference; instead, it suggests:

- Limited awareness of the environmental impact of detergents.
- Perceptions that eco-friendly products are more expensive or less effective.
- Lack of visibility and accessibility of sustainable alternatives in mainstream retail.

Research on consumer behaviour towards sustainable products highlights that knowledge gaps and cost concerns are primary barriers to sustainable purchasing decisions.

4.1.5. Brand Loyalty and Habitual Purchasing

The majority of participants displayed habitual purchasing behaviour, frequently repurchasing the same brand or product format over extended periods. Brand loyalty was often linked to prior positive experiences, trust in product quality, and perceived reliability. However, a smaller subset of less experienced shoppers (particularly younger participants) exhibited greater willingness to experiment with different brands and formulations.

4.2 Part B: Purchase Motivation

This section explores the key factors influencing consumer purchasing decisions for laundry detergents, based on a structured “Post-It” note exercise, follow-up discussions, and a ranking prioritisation activity. The analysis identifies dominant motivators, including cost considerations, sensory preferences, product effectiveness, convenience, safety, brand trust, and environmental concerns, providing insights into consumer behaviour and decision-making processes.

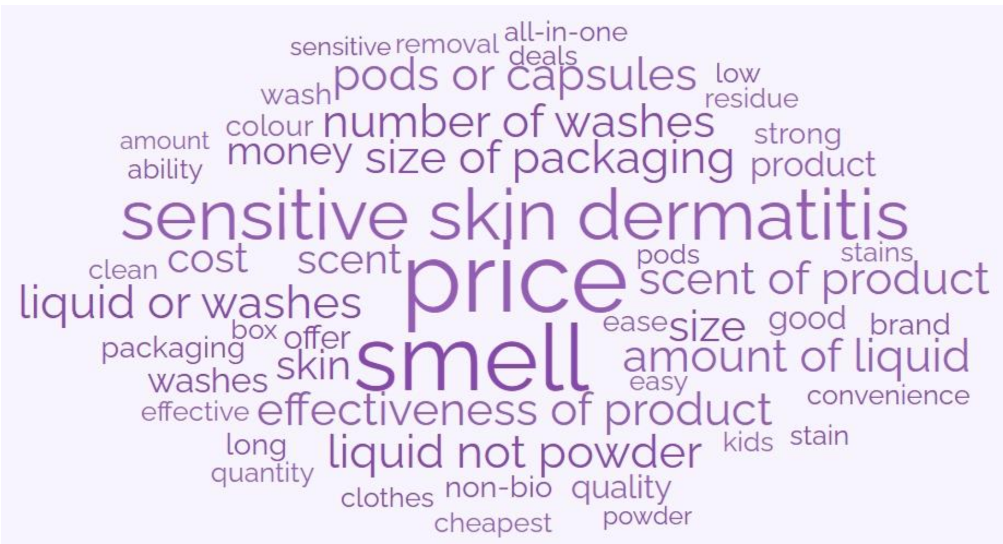

Figure 1: Word Cloud Illustrating Popular Responses to Post-It Exercise

4.2.1. Key Purchasing Factors: Post-It Exercise Summary

Participants individually listed factors influencing their detergent choices, generating 223 responses, categorised as follows (**Table 3**):

Table 3: Key Factors Influencing Laundry Detergent Purchasing Decisions

Theme	Number of References	Notes
Cost	74	This includes words and phrases such as price, value for money, offers and propensity to bulk buy.
Touch and smell	45	Although classified here as "touch and smell" these comments almost always related specifically to smell.
Cleaning effectiveness	24	This includes comments referring to effectiveness generally and also to specific issues such as stain removal.
Convenience	24	Convenience factors generally related to product type and ease of storage.
Safety	22	Issues included here most commonly related to safety and kindness to skin as well as occasional references to packaging.
Presentation and merchandising	19	A number of comments here are general comments on size of packaging and participants may have been referring to various things here, including bulk buying. Other comments were about presentation and location issues.
Trust in product or brand	9	This includes general references to brand and reliability, as well as recommendations.
Environmental factors	6	Comments on low temperature washes, on reducing waste and landfill and on "eco" generally have been included here.
Total	**223**	-

This initial exploration confirms that cost is the dominant factor in purchasing decisions, followed closely by sensory preferences and cleaning effectiveness. Notably, environmental considerations were mentioned infrequently, suggesting that sustainability does not currently play a significant role in consumer decision-making.

4.2.2. Prioritisation of Motivational Factors

Following the Post-It note exercise, participants ranked the importance of various product attributes in their purchasing decisions[7]. The table below presents the mean ranking assigned to each factor (lower scores indicate higher priority):

[7] Participants were asked to rank the importance of laundry detergent product attributes from 1 to 8, with attribute assigning 1 represents the most important, and attribute assigning 8 represents the least important.

Table 4: Ranked Importance of Laundry Detergent Attributes

Attribute	Rank	Mean
How well the product works in cleaning items	1	2.6
Cost of the product	2	2.7
Touch and smell of product / cleaned items	3	3.0
Convenience of using the product	4	3.9
Trust in product / brand	5	3.9
Safety of the product	6	5.1
Environmental benefits of the product	7	6.4
Presentation and merchandising of the product in store	8	6.6

These rankings reinforce the idea that participants primarily prioritise cleaning performance and cost, with touch and smell also playing a significant role. Environmental factors were consistently ranked among the lowest priorities, suggesting a low level of engagement with sustainability concerns in detergent purchasing.

4.2.3. Price Sensitivity and Perceptions of Value

A significant proportion of participants emphasised cost as a primary factor in their detergent purchasing decisions. However, price sensitivity does not necessarily translate to always choosing the cheapest product available. Instead, participants described a variety of strategies to maximise value whilst maintaining product quality and effectiveness, including:

- Seeking promotional offers – Many participants indicated that they had a preferred brand but would only purchase it when it was on offer in supermarkets.
- Bulk purchasing – Consumers frequently bought larger packs when available at discounted rates, either as part of supermarket reward schemes or standalone promotions.
- Comparing price per wash – Rather than focusing on the total price, participants actively compared the cost per wash to assess which detergent offered the best value.
- Shopping at discount retailers – Stores such as Aldi, Lidl, Costco, Home Bargains, and B&M were frequently mentioned as places where consumers could access cheaper alternatives to major brands.

However, certain product choices remained non-negotiable. Many participants exclusively purchased non-bio detergents due to skin sensitivity concerns, even if cheaper bio alternatives were available. Past negative experiences with budget brands (e.g., residue, poor cleaning performance, or overpowering fragrances) also deterred some from experimenting with lower-cost options.

The cost-of-living crisis was a recurring theme, with consumers more cautious about spending:

> **"Nothing is going down in price."**

Even among those who were financially comfortable, budget-conscious shopping habits had intensified, demonstrating that affordability is a key driver of behaviour.

4.2.4. Sensory Preferences: Scent and Skin Sensitivity

Scent was a highly influential factor in detergent selection, with many participants associating fragrance with cleanliness and freshness. Consumers frequently used descriptors such as “Fresh”, “Relaxing” and “Summery”. For some, specific scents had personal significance (e.g., lavender for calming children with learning difficulties). However, a smaller group actively avoided strong artificial fragrances, citing:

- Allergies or respiratory sensitivities – Some participants found strong fragrances overpowering or irritating, leading them to seek milder or fragrance-free alternatives.
- A preference for natural scents – A few individuals expressed a dislike for harsh chemical smells, opting instead for subtler or naturally derived fragrances.

Skin sensitivity was another key factor, with many participants — especially parents — choosing non-bio detergents to avoid irritation.

4.2.5. Cleaning Effectiveness: Assumptions vs. Performance

Despite being ranked as the top priority, cleaning effectiveness was rarely discussed in depth. Most participants assumed all detergents worked adequately, with scent, skin sensitivity, and convenience playing a larger role in purchase decisions.

For many participants, washing machine settings and habits were perceived as playing a larger role in cleaning performance than the detergent itself. Some participants washed clothes at lower temperatures to save on energy costs, but very few reported choosing a specific detergent tailored for lower-temperature washes. However, a few concerns about cleaning performance did emerge, particularly regarding:

- Stain removal for heavily soiled items – Some participants mentioned tough stains as a challenge, but rather than switching detergents, they typically used pre-treatments or stain removers to address the issue.
- Residue left on clothes or in machines – A small number of participants noted occasional detergent buildup, particularly with powders or pods, which influenced their product choices.

Despite cleaning ability being a priority on paper, participants demonstrated a habitual reliance on their preferred detergent brands, often complementing their washing routine with additional products rather than changing their detergent entirely.

4.2.6. Convenience: Packaging, Storage, and Portion Control

Convenience was a significant factor for many participants, particularly in relation to packaging format, storage space, and portion control. Consumers valued products that were easy to use, transport, and store, with pods and tablets emerging as the preferred options for these reasons. Key convenience-related preferences included:

- Preference for pods and tablets – Many participants found pods and tablets to be the most user-friendly due to their pre-measured format, which helped with portion control and prevented excess detergent use.
- Avoidance of powders – Powders were seen as less convenient due to spillages and residue issues, both in washing machines and during handling.
- Storage considerations – Some participants, particularly those in smaller households or with limited storage space, expressed a preference for compact packaging. Pods and tablets were generally perceived as easier to store than bulky powder boxes or large liquid bottles.

4.2.7. Safety Concerns

A few participants raised concerns about safety, particularly regarding packaging security. Tamper-proof packaging was considered important, especially for households with young children. Additionally, some participants linked safety concerns to skin sensitivity, reinforcing their preference for non-bio detergents to avoid potential irritation.

4.2.8. Presentation and Merchandising

Whilst product appearance was not a primary motivator, a small number of participants stated that they were drawn to colourful packaging. However, most noted that in-store promotions, rather than packaging design, had a stronger influence on purchasing decisions.

Some participants also observed that leading brands were positioned at eye level in supermarkets, making them more visible compared to lower-cost or niche eco-friendly alternatives, which were often placed in less prominent areas. This retail shelf placement strategy may contribute to limited awareness and adoption of alternative detergent brands.

4.2.9. Brand Loyalty and Reluctance to Switch

Brand trust played a significant role in consumer decision-making, with many participants demonstrating strong loyalty to products they had used for years. This reluctance to switch was often driven by familiarity and perceived risk avoidance, as reflected in comments such as:

> **"I like to stick with what works."**
> **"I don't want to be a guinea pig."**

Many participants had previously tried lower-cost alternatives but returned to their preferred brands due to negative experiences with:

- Overpowering artificial fragrances
- Poor cleaning performance
- Skin irritation

However, a minority were open to switching — provided an alternative matched or exceeded expectations in terms of cleaning power, fragrance, and skin sensitivity.

4.2.10. Environmental Considerations

Environmental concerns were rarely mentioned spontaneously during discussions, highlighting the low priority of sustainability in detergent purchasing decisions. Even when prompted, many participants still expressed little to no consideration for the environmental impact of their choices:

> **“I don’t think about it at all.”**
> **“You just want to get your clothes clean.”**

Among the small group of participants who did take environmental factors into account, the focus was primarily on packaging waste reduction rather than the detergent formulation itself. Their eco-conscious behaviours included:

- Recycling packaging – Preference for cardboard over plastic.
- Bulk buying – To reduce packaging waste.
- Short cycle washes – Though primarily for cost savings, not sustainability.

However, the biggest barrier to purchasing environmentally friendly products was cost. Many participants recognised that eco-friendly detergents tended to be more expensive and felt that affordability took precedence over sustainability:

> **“You pay more for these.”**
> **“I can't afford to be choosy.”**

Whilst participants theoretically support sustainability, price and convenience remain the dominant decision-making factors.

4.2.11. Consumer Information Sources and Decision-Making

Participants relied on a limited range of information sources when selecting laundry detergents, with most decisions driven by habit, in-store cues, and word-of-mouth influence rather than active research. The most commonly referenced sources are summarised in **Table 5**:

Table 5: Consumer Information Sources and Decision Influences

Source	Common Themes
Word-of-mouth	Influence from family members, particularly parents and siblings. Many participants had inherited their detergent choices from their households growing up.
Advertising	Brand recall from TV and print ads, even if the impact was subconscious.
Packaging	In-store decision-making based on bottle labels and branding. The most commonly reviewed feature was the wash count claim, although some were sceptical of its accuracy.
Online Research	Rarely used. A few participants Googled products for price comparisons, but online reviews (e.g., Amazon,

	eBay) were seldom referenced. Social media influence was minimal in this product category.

The reliance on habitual purchasing and in-store cues suggests that low-engagement, routine products like laundry detergents are primarily driven by brand familiarity and convenience, rather than extensive research or active comparison. Consumers typically default to what they know and trust, unless presented with compelling reasons to switch.

4.3 Part C: Pricing

This section examines consumer price perceptions and willingness to pay for conventional, sustainable, and circular laundry detergents, based on two structured pricing exercises. The findings provide insights into price sensitivity, branding influences, and the barriers to adopting circular products.

4.3.1. Pricing Exercise 1: Consumer Price Perceptions of Different Detergent Brands

Methodology

Participants were presented with three different detergent brands — Ariel Original (leading brand), Ecover Non-Bio (eco-friendly brand), and Tesco Non-Bio (retailer own-label). For each product, they were asked to determine:

- The price they consider “expensive” but still acceptable.
- The price they consider “cheap” but still a good buy.
- The threshold at which the product is “too expensive” and they would not purchase it.
- The price at which it is “too cheap”, leading them to doubt its quality.

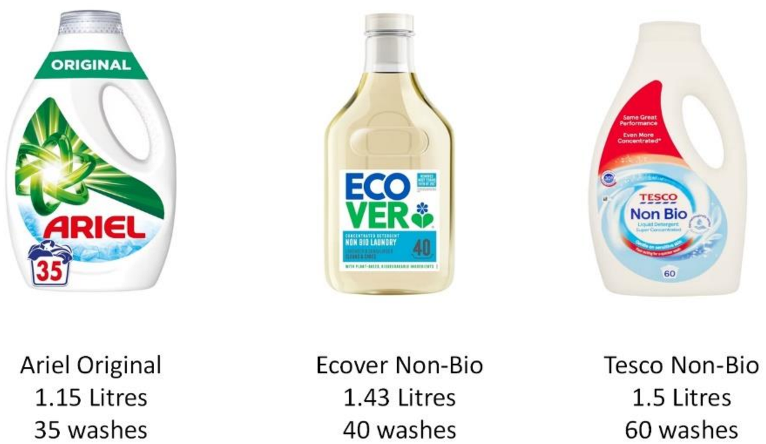

Figure 2 Laundry Detergent Products Presented to the Participants (Ariel, Ecover, Tesco)

This approach was derived from the Van Westendorp Price Sensitivity Meter which is a commonly used tool in determining consumer price preferences (Ceylana et al., 2014). The results are summarised below[8]:

Table 6: Consumer Price Perceptions of Laundry Detergent Brands

Product	Category	Mean	Median
Ariel Original 1.15 Litres 35 washes	Expensive	£10.40	£9
	Cheap	£5.90	£5
	Mid-point9	£8.15	£7
	Too expensive	£12.90	£12
	Too cheap	£3.10	£3
Ecover Non-Bio 1.43 Litres 40 washes	Expensive	£11.30	£10
	Cheap	£6.10	£6
	Mid-point	£8.70	£8
	Too expensive	£14.40	£12
	Too cheap	£3.80	£4
Tesco Non-Bio 1.5 Litres 60 washes	Expensive	£10.40	£9
	Cheap	£5.60	£5
	Mid-point	£8	£7
	Too expensive	£13.10	£12
	Too cheap	£3.50	£3

Analysis and Key Findings

A. Price Anchoring and Brand Perceptions

Price perceptions were heavily influenced by brand reputation, with Ariel and Tesco representing two ends of the pricing spectrum:

- Ariel was perceived as a premium, trusted brand, justifying a higher price point based on brand recognition and quality assurance.
- Tesco's own-label detergent was seen as a budget-friendly alternative, with participants expecting it to be significantly cheaper than branded options. On a per-wash basis, Tesco was expected to be at least 40% cheaper than Ariel.

B. The Eco-Friendly Pricing Paradox

The perception of Ecover — a detergent positioned as an eco-friendly alternative — did not align with standard price expectations:

- Participants anticipated a high price for eco-friendly products, aligning with the Price-

[8] Participants were asked to respond for the products "as shown" and not on the basis of a "cost per wash".
[9] Expressed as the mid-point of the "expensive" and "cheap" responses.

Quality Heuristic, which suggests that higher prices are often associated with better quality and sustainability (Jeong et al., 2019).

- However, Ecover's packaging and branding undermined its premium positioning, leading to confusion about its actual value. Instead of appearing high-end, the product was perceived by some as cheap or industrial:

> **"Looks like a car shampoo."**
> **"Like a commercial laundry product."**

- This disconnects between expected pricing and perceived quality highlights a branding weakness.

C. The Role of Cost Per Wash in Decision-Making

Participants often performed cost-per-wash calculations rather than evaluating the absolute price of a detergent bottle:

- Ecover (40 washes) was seen as comparable to Ariel (35 washes), which reduced perceptions of a sustainability price premium.
- This demonstrates that consumers weigh long-term value rather than just shelf price, reinforcing the importance of clear pricing communication on packaging.

D. Availability and Perceived Demand

A lack of shelf visibility for eco-friendly products was another factor limiting consumer adoption:

- Few participants recalled seeing Ecover or similar products in stores, and when they did, there was doubt about demand.
- This suggests that eco-friendly detergents may be facing distribution and retail placement challenges.

4.3.2. Pricing Exercise 2: Willingness to Pay for Sustainable and Circular Products

Methodology

Participants were introduced to three categories of laundry detergent products:

1) Conventional detergent – No environmental claims, representing the standard market offering.
2) Sustainable detergent – A product with some eco-friendly attributes, but not fully circular.
3) Circular detergent – A fully circular product designed to minimise waste and environmental impact.

This is an example of a **"conventional"** product whose manufacturing process uses petrochemical feedstocks that are derived from fossil fuels

This is an example of a **"sustainable"** product that uses biodegradable plant-based ingredients in its manufacturing process

This is an example of a **"circular"** product made from recycled carbon dioxide from industrial uses which, once used, biodegrades back into carbon dioxide. This product has been tested in some international markets and is in development stage in the UK.

Figure 3 Laundry Detergent Products Presented to the Participants (Conventional, Sustainable, Circular)

Participants were asked to select their preferred option across six pricing scenarios, where the cost per wash increased for sustainable and circular products. The results of price sensitivity and switching patterns are summarised in the table below:

Table 7: Participants' Willingness to Pay for Sustainable and Circular Laundry Detergents

Scenario	Summary	Conventional	Sustainable	Circular	Base
1.	Conventional – 17p per wash Sustainable – 25p per wash Circular – 28p per wash	43	11	0	54
2.	Conventional – 17p per wash Sustainable – 23p per wash Circular – 25p per wash	38	11	5	54
3.	Conventional – 17p per wash Sustainable – 21p per wash Circular – 22.5p per wash	28	11	15	54
4.	Conventional – 17p per wash Sustainable – 19p per wash Circular – 20p per wash	19	14	21	54
5.	Conventional – 17p per wash Sustainable – 17p per wash Circular – 17p per wash	7	13	34	54
6.	Conventional – 17p per wash Sustainable – 15p per wash Circular – 15p per wash	6	13	35	54

Analysis and Key Findings

A. Price Sensitivity and Willingness to Switch

- The majority of participants were unwilling to pay a significant premium for sustainable options. When the price gap was 8p per wash, 80% opted for conventional detergents.

- A turning point emerged when the price premium was 2-3p per wash, where a considerable shift towards circular products occurred.

The findings suggest that participants are more resistant to price increases than they are motivated by potential gains, meaning only modest price differences encourage behavioural change.

B. Confusion Around Circular Products

- Many participants lacked a clear understanding of what “circular” meant, which created hesitation in choosing these products.
- Instead of transitioning from conventional → sustainable → circular, some participants skipped the sustainable option entirely once price differences were negligible. This suggests that sustainable and circular products compete within the same decision-making space, potentially reducing the sustainable category’s effectiveness as a stepping stone.

C. Barriers to Circular Economy Adoption

- Lack of Awareness – Many participants were unaware that conventional detergents rely on fossil fuel-derived ingredients.
- Low Perceived Personal Benefit – Unlike factors such as cost or cleaning effectiveness, the environmental impact of detergents felt less clear and less urgent.
- Retail Visibility Issues – Few participants recalled seeing circular products in stores, which suggests either limited availability or poor merchandising strategies.

4.4 Part D: Potential Motivations for Switching

This section examines the key factors influencing consumer willingness to switch to circular laundry detergents and the barriers preventing adoption. Insights from the focus groups suggest that whilst there is a degree of openness to environmentally friendly alternatives, widespread adoption remains hindered by low awareness, scepticism, and entrenched shopping habits.

4.4.1. Motivations for Switching to Circular Products

Whilst cost remains a primary concern (as explored in the pricing section), participants identified several non-price factors that could encourage them to switch to circular laundry detergents.

Existing Sustainable Behaviours as a Starting Point

Many participants already engage in sustainability-related behaviours, such as:

- Recycling and composting.
- Choosing recyclable or reduced-plastic packaging.
- Using short wash cycles to save energy.

However, these behaviours do not always translate into purchasing decisions, particularly when it comes to laundry detergents. The disconnection between environmental awareness and purchasing habits suggests a cognitive dissonance effect, where individuals hold pro-environmental values but continue to buy conventional products due to habit, lack of knowledge, or perceived inconvenience.

> **"I recycle all my plastic, but I've never really thought about what my detergent is made of."**

Role of Established Brands in Driving Adoption

Brand familiarity was a significant factor influencing willingness to switch. Many participants expressed reluctance to try lesser-known eco-friendly brands but indicated they would be more open to circular products if they were offered by established brands:

> **"If 'Persil' or 'Fairy' had a circular version, I'd definitely try it."**

This suggests that consumers are more likely to trust and adopt new products if they come from brands they already associate with quality and reliability.

Performance and Packaging Expectations

For most participants, switching to a circular detergent was conditional on its ability to match conventional products in three key areas:

- Cleaning effectiveness – Must perform equally well in stain removal.
- Scent and feel – Should have a pleasant fragrance without residue.
- Packaging quality – Must not appear cheap or industrial.

Negative perceptions of eco-branded packaging were a concern:

> **"It would need to be packaged well — not like the eco one ('Ecover') you showed us."**

These insights indicate that aesthetics and perceived product quality are critical in encouraging adoption, where consumers associate premium pricing with better quality, but only if the packaging aligns with their expectations.

4.4.2. Barriers to Adoption of Circular Products

Despite some openness to circular detergents, multiple barriers hinder adoption, including low awareness, scepticism, and resistance to change.

Lack of Awareness and Understanding

One of the most significant barriers was the low level of awareness regarding circular products and the circular economy as a whole.

> **"What does it really mean?"**
> **"What are the benefits?"**

Even after explanations, many struggled to understand the circular production process. Without clear messaging, circular detergents remain an unclear concept rather than a compelling choice.

Scepticism Towards Environmental Claims

Many participants expressed doubt about the legitimacy of sustainability claims, with some comparing the situation to early electric vehicle adoption:

> **"People bought electric cars thinking they were better, but now some are going back to petrol."**

This reflects consumer concerns about "greenwashing", where brands use sustainability as a marketing tool without genuine environmental benefits. Some participants also referenced broader concerns about the waste management industry, such as:

> **"We hear all this talk about recycling, but then they send plastic waste to other countries."**

Without transparency and verifiable proof, many remain sceptical of sustainability claims.

Circular Products Perceived as a "Luxury"

Eco-friendly and circular products were widely seen as expensive and exclusive:

> **"Middle-class people can afford this."**
> **"People with money who don't have to worry about price."**

This affordability barrier reinforces the need for competitive pricing strategies to make circular products more accessible.

4.4.3. Consumer Stereotypes and Social Influences

The "Eco-Friendly Consumer" Stereotype

Participants had strong preconceived notions about who buys sustainable products. Common stereotypes included:

- Students
- "Hippies"
- Vegans
- "Waitrose shoppers"

This perception hinders mainstream adoption, as sustainability is not yet seen as a universal behaviour.

Virtue Signalling Concerns

Some participants viewed buying sustainable products as performative rather than genuine:

> **"People buy these products just for the kudos."**

This suggests that sustainability messaging should be framed in a way that emphasises practical benefits rather than virtue signalling.

4.5 Post-group Question: Likelihood of Switching to Circular Products

Following the focus group discussions, participants completed a survey assessing their likelihood of switching from a conventional to a circular laundry detergent under different conditions. The aim was to quantify the key drivers of behaviour change.

Methodology

Participants were asked the following question:

> **"ALL OTHER THINGS BEING EQUAL (that is, assuming no change in the situation with regard to all the other attributes), how likely or otherwise do you think it would be that you personally would switch from a 'conventional' to an environmentally friendly 'circular' laundry detergent product in each of the following circumstances?"**

Responses were recorded using a seven-point likelihood scale, with percentage ranges assigned to each category:

- Extremely unlikely (0%-5% likelihood of switching)
- Very unlikely (6%-15% likelihood)
- Unlikely (16%-30% likelihood)
- Neutral (31%-50% likelihood)
- Likely (51%-70% likelihood)
- Very likely (71-85% likelihood)
- Extremely likely (86%-100% likelihood).

To facilitate analysis, responses were converted to mean percentage scores, summarised in the table below.

Table 8: Factors Influencing Consumer Likelihood of Switching to Circular Laundry Detergents

Condition	Mean % Likelihood of Switching	Base
If the price difference between the "circular" and "conventional" product reduced by half.	71.0%	54
If you felt that the "circular" laundry detergent product had a significantly better cleaning performance than the "conventional" product.	66.7%	54
If you felt that the "circular" laundry detergent product was significantly safer than the "conventional" product.	61.6%	54
If you felt that the environmental harm of the "conventional" laundry detergent product as compared to the circular product outweighed any other considerations	54.6%	54

If it became significantly less socially acceptable to purchase the “conventional” laundry detergent product as compared to the environmentally friendly “circular” product.	48.0%	54

Analysis and Insights

A. Price Reduction as the Strongest Driver of Behaviour Change

The most significant motivator was price reduction, with 71% of participants indicating they would switch if the price gap between circular and conventional products halved.

This reinforces previous findings that price is the primary barrier to sustainable choices, where consumers prioritise avoiding financial loss over potential environmental benefits.

> **“I’d switch if it were more affordable — right now, it’s just too expensive compared to what I normally buy.”**

B. Cleaning Performance as a Crucial Secondary Factor

Around 67% of participants stated they would switch if circular detergents provided superior cleaning performance. This highlights that whilst sustainability is desirable, it remains secondary to effectiveness.

> **“If it cleaned better, I’d definitely give it a try. But I’m not paying extra for something that doesn’t work as well.”**

C. Safety Concerns as a Significant Motivator

Consumer concern over product safety emerged as a strong influencing factor, with around 62% of participants indicating they would switch if a circular product was proven to be significantly safer than conventional options.

This aligns with earlier discussions around skin sensitivity and harsh chemicals, which were frequently cited as concerns by participants. Consumers who had children or sensitive skin were particularly receptive to switching if safety benefits were clearly demonstrated.

> **“If it’s better for my skin and my kids, I’d be happy to switch — but only if I knew for sure.”**

D. Environmental Considerations: Important but Less Convincing

Although environmental harm was identified as a factor in switching decisions, it was notably less influential than price, performance, or safety. Only around 55% of participants stated they would switch if they felt conventional detergents caused significant environmental harm.

> **“I care about the environment, but I still need to think about my budget.”**

This highlights a key challenge for circular brands: environmental messaging alone is insufficient to drive consumer adoption.

E. Social Pressure Is the Weakest Motivator

The least influential driver of behaviour change was social acceptability, with only around 48% of participants indicating they would switch if conventional detergents became socially unacceptable.

This suggests that social norms around sustainable consumption are not yet strong enough to drive mass behavioural shifts in laundry detergent purchasing. Furthermore, some participants expressed resistance to perceived external pressures, particularly from government or corporate mandates.

> **“Why should the government tell me what to buy?”**

5.0 Summary of Key Insights

The focus group discussions provided valuable insights into consumer attitudes towards laundry detergent products, their purchasing behaviours, and potential motivations for switching to circular alternatives. The findings are summarised under four key themes:

- Consumer Purchasing Behaviour and Key Decision Factors
- Barriers to Adoption of Environmentally Friendly and Circular Products
- Potential Drivers of Behavioural Change
- Role of Business and Policy in Encouraging Circular Consumption

5.1 Consumer Purchasing Behaviour and Key Decision Factors

1) Price and perceived value for money are primary motivators
    - Consumers are highly price-sensitive, but this does not necessarily mean they purchase the cheapest product available.
    - Instead, they prioritise value for money, employing strategies such as bulk purchasing, seeking promotions, and preferring trusted brands to maximise savings.
2) Consumers prioritise functional product attributes over sustainability
    - The most important product attributes influencing purchase decisions are:
        - Scent – Strong association between fragrance and perceived cleanliness.
        - Cleaning effectiveness – Concerns about stain removal and residue in machines.
        - Convenience – Ease of use, transportation, and storage.
        - Safety – Preference for non-bio options for sensitive skin.
3) Sustainability concerns play a minimal role in purchasing decisions
    - Environmental impact is rarely a primary consideration when purchasing laundry detergents.
    - When sustainability is considered, it is usually in relation to packaging rather than the product's overall environmental footprint.
4) Consumers rely on traditional sources of product information
    - Decision-making is driven by packaging, brand reputation, and word-of-mouth from family members.
    - Online research, forums, and social media play a minimal role in influencing detergent purchases.

5.2 Barriers to Adoption of Environmentally Friendly and Circular Products

1) Limited availability and visibility of eco-friendly products
    - The adoption of circular detergents is not just a motivational issue but also an opportunity issue.

- Eco-friendly products are not widely stocked or prominently displayed in major retail outlets, limiting their exposure.

2) Consumer scepticism about green claims
   - Participants expressed doubt about the legitimacy of sustainability claims, fearing "greenwashing".
   - Some leading eco-brand suffer from negative perceptions related to packaging and presentation, which detracts from its perceived premium status.
3) Expectation of a "green premium" discourages adoption
   - Consumers assume that eco-friendly products will cost significantly more, reinforcing the perception that sustainability is a luxury rather than an accessible option.
   - Given current economic pressures, many consumers feel they cannot afford to prioritise sustainability.
4) Lack of awareness about the environmental impact of detergents
   - Consumers do not recognise the fossil fuel-derived nature of conventional laundry detergents.
   - There is also a widespread lack of understanding of the circular economy, with many participants struggling to grasp the tangible benefits of circular production.
5) Perception of circular consumers as a niche group
   - Many consumers do not see themselves as the target audience for circular products.
   - This narrow perception risks alienating mainstream consumers if circular products are marketed primarily on environmental credentials.

5.3 Potential Drivers of Behavioural Change

1) Consumers are open to switching, but only under specific conditions
   - Whilst environmental messaging alone is insufficient, consumers indicated a willingness to switch to circular detergents under the following conditions:
     - Price reduction – If the price gap between conventional and circular detergents is significantly reduced.
     - Better cleaning performance – If circular products can outperform traditional detergents.
     - Improved safety – If circular detergents are proven to be safer for skin and health.
2) Brand trust and familiarity are crucial in encouraging switching
   - Consumers indicated a preference for well-known brands offering circular products over niche sustainability brands.
   - Mainstream adoption is more likely if established brands like Persil, Fairy, or Ariel introduce circular variants.
3) Improved product presentation and messaging could enhance appeal
   - Circular products should match conventional detergents in packaging — current eco-friendly designs are often perceived as cheap or unappealing.
   - Consumers also require clearer communication about the benefits of circular detergents to bridge the knowledge gap.

5.4 Role of Business and Policy in Encouraging Circular Consumption

1) Businesses should integrate sustainability into mainstream offerings
    - Instead of positioning circular products as niche alternatives, manufacturers should aim for mass-market appeal by ensuring that circular detergents:
        - Are competitively priced.
        - Match or exceed conventional products in performance and convenience.
        - Are branded under established, trusted names.
2) Governments should focus on incentives rather than regulation
    - Consumers expressed resistance to government-imposed restrictions on conventional detergents but were open to initiatives that encourage voluntary switching.
    - Potential policy interventions include:
        - VAT reductions or subsidies for circular products to close the price gap.
        - Mandatory eco-labelling to ensure transparency and combat “greenwashing”.
        - Retailer incentives to improve shelf positioning for circular products.
3) Education and awareness campaigns are needed to drive informed choices
    - Many consumers lack basic knowledge of circularity and the environmental impact of detergents.
    - Information campaigns should focus on:
        - The hidden environmental costs of conventional detergents.
        - The specific benefits of circular manufacturing.
        - How circular detergents compare in terms of cleaning power and skin safety.

6.0 References

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