Strategic Communication for Post-Consumption Engagement in Sustainable Fashion: Extending Consumer Responsibility

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ABSTRACT

The fashion and textile industry is increasingly confronted with critical sustainability challenges, particularly concerning the post-consumer textile waste generation provoked by the rapid change of consumption trends. While progress has been demonstrated in the domain of sustainable production approaches development, the post-consumption phase as an essential dimension within the circular economy paradigm remains insufficiently addressed within both academic discourse and industrial strategy. This paper introduces the conceptual framework for the Extended Consumer Responsibility (ECR) as a complementary to Extended Producer Responsibility strategic approach to foster sustainable consumers behaviour, providing reconsideration of the post-consumption as a strategic frontier for sustainable value creation by engaging consumers actively after the use phase. Based on the systematic literature review and EU policy-driven key post-consumption strategic elements for circular fashion and textile related to the consumers awareness and engagement within the REsolve frame: reuse, repair recycling, this study discloses the potential to enhance sustainability through digitalized post-purchase communication strategy development that leveraging advanced digital technologies encourages closed-loop behaviours and long-term value co-creation in the evolving fashion ecosystem. Moreover, it highlights the strategic role of digital transformation processes as enablers of dynamic and personalized communication, supporting the development of transparent, purpose-driven post-consumption engagement frameworks.

Keywords: Sustainable consumption, fashion industry, consumers behaviour, post-consumption, communication strategy, digital technologies

1. Introduction

The growing prioritization of the circular economy model in the fashion and textile industry has resulted in the development of a comprehensive European sustainability regulatory framework. It is mainly represented by The European Sustainability Reporting Standards (ESRS E5), Corporate Sustainability Reporting Directive (CSRD), the Waste Framework Directive, Extended Producer Responsibility (EPR) and Circular Economy Action Plan for Textiles, which strongly accentuates producer accountability for environmental and social sustainability outcomes across product life cycles, reflecting a distinctive producer-centric governance approach aimed at fostering sustainable production, waste reduction, and circular economy practices. However, such regulatory focus heavily privileges upstream producer obligations, mandating eco-design, material traceability, and producer-financed waste management systems, while offering limited scaffolding for formalized consumer engagement post-

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purchase. Current policy frameworks often conceptualize consumers primarily as passive end-users, thereby limiting their potential contribution to sustainable consumption through ReSolve framework (i.e., reuse, repair, resale, rent, recycling) (Lim, 2017). It reveals a marked asymmetry through the insufficiently addressing the critical role of consumers as active agents in the post-purchase sustainability context, which results in a systemic undervaluation of the consumer role in the sustainability equation, restricting small and medium-sized enterprises' (SMEs) ability to cultivate extended responsibility through effective communication strategies (Kemi & Zilahy, 2025).

 This disequilibrium is particularly salient for Italian SMEs in the fashion and textile sector, whose competitive advantage often stems from close consumer relationships, positioning them uniquely to foster post-purchase sustainability behaviours through targeted communication, hence, increasing the consumer responsiveness to the sustainability practices suggested or introduces by SMEs within regulation framework (Andreini et al., 2020; Moisello, 2025). It demonstrates the lack of clear regulatory mandate or incentive for SMEs to develop continuous targeted sustainability-oriented post-purchase dialogue mechanisms, such as digital platforms for eco-feedback, sustainability education, or participatory value co-creation, that are essential to fostering behavioural change and prolonging product utility to enable sustainability consumption patterns (Sesini et al, 2020; Sun et al., 2021; Leclercq-Machado et al., 2022; Pizzutti et al., 2022). Additionally, regulatory attention to social sustainability and ethical considerations largely targets supply chain governance and producer compliance, with minimal emphasis on communicating these values to consumers as part of a holistic post-purchase experience. This omission perpetuates a fragmented sustainability narrative that constrains SMEs' capacity to integrate ethical labour practices and community values into consumer-facing communications, limiting opportunities for co-created value and mutual trust-building (Upadhyay & Kamble, 2025). Moreover, existing regulatory narratives primarily emphasize producer-led sustainability metrics and supply chain ethics, with limited integration of consumer-centric communication strategies that could foster behavioural transformation and long-term ecological stewardship (Schiaroli et al., 2024; Ramani et al., 2025). In addition, the consumer protection directives aimed at preventing greenwashing and improving transparency predominantly address pre-purchase informational asymmetries without sufficiently empowering consumers for ongoing engagement. For, instance, the proposed Green Claims Directive is primarily focused on protecting consumers from greenwashing rather than empowering them to act sustainably. Existing statements in the directive already references product life cycles and usage-phase relevance, providing a natural entry point for incorporating consumer engagement mechanisms within ReSolve framework. Update the objectives of current or new directive to go beyond protection from misleading claims by formally including the goal of empowering consumers to make and sustain environmentally responsible choices throughout the product lifecycle. Thereby, from the consumer-related perspective, a critical imbalance emerges between the responsibilities adhered to producers and those oriented onto the sustainable consumption fostering, constraining the full realization of circular economy objectives.

 This imbalance necessitates a strategic reconsideration within both policy and business practice to foreground the sustainable consumption perspective, explicitly incorporating consumer empowerment and incentivizing interactive, post-purchase

communication infrastructures, enhancing the dialogic and participatory dimensions of consumer interaction, leveraging digital innovation and localized authenticity to cultivate continuous engagement, trust, and shared value creation (Marroncelli & Braithwaite, 2025). Such integrative approaches are critical for advancing sustainable consumption patterns, aligning with the broader imperatives of the circular economy and social equity embedded within the European sustainability agenda. Therefore, this study seeks to mitigate this imbalance by introducing the concept extended consumer responsibility (ECR) as a foundational axis in post-purchase communication strategy development that reflects both consumer's responsiveness to sustainability-oriented practises within fashion SME operating processes and willingness to adjust sustainable consumption patterns to consumers behaviour. Thereby, providing a strategic realignment that integrates consumer empowerment within sustainability-related regulatory framework to balance the sustainable production and consumption elements. Applying the ECR lens, it suggests a conceptual framework to advance post-purchase sustainability interactions, thereby contributing to systemic sustainability transitions in the fashion industry.

2. Methodological Approach

This conceptual study adopts a qualitative, theory-building approach aimed at advancing the understanding of post-purchase communication strategy through the introduction of ECR lens. The methodology is designed to ground the conceptual development in existing scholarly discourse, identify knowledge gaps, and synthesize theoretical frameworks that inform the proposed model.

Stage 1: Theoretical Grounding and Literature Synthesis. The initial stage focused on establishing a robust theoretical foundation. A targeted literature review was conducted to map existing academic discourse at the intersection of sustainable consumption and the fashion sector. Using Scopus database, a systematic search was performed with the keywords ("sustainable consumption") and ("fashion company") to ensure a focused yet comprehensive coverage of relevant studies. The screening process followed PRISMA guidelines to ensure methodological transparency and rigor. Inclusion and exclusion criteria were developed to retain papers specifically addressing behavioural aspects of sustainability, with a particular focus on consumption phases within the fashion sector. To ensure methodological consistency and academic rigor, the inclusion criteria were limited to peer-reviewed journal articles published in English. No temporal limitations were imposed, thereby allowing for the inclusion of both foundational and contemporary contributions to the discourse. To ensure the relevance, clarity, and conceptual alignment of the literature selected for this study, a set of exclusion criteria was systematically applied during the screening process. The following categories guided the removal of non-eligible records:

- content redundancy and terminological ambiguity (Code 1). Records were excluded if identified as duplicates or if they presented misleading interpretations of the term "fashion" Specifically, articles that treated fashion as a metaphorical or behavioural concept (e.g., "fashion of doing") rather than as an industry or sector were excluded to maintain sectoral coherence and contextual specificity.

- topical irrelevance to sustainable consumption in fashion (Code 2). Publications were excluded if they lacked a substantive focus on sustainable consumption within the fashion sector. This included articles that mentioned sustainability or fashion only tangentially, such as in the abstract or introduction, without integrating these themes into the core research objectives, methodology, or analysis. Such exclusions helped refine the dataset to studies with direct relevance to the research aim.
- methodological and conceptual misalignment (Code 3). Studies were also excluded if they demonstrated methodological or conceptual irrelevance to the research scope. This particularly applied to works grounded in psychological discourse that did not contribute to understanding post-purchase behaviour, communication strategies, or ECR within fashion SMEs. The exclusion ensured alignment with the conceptual and managerial orientation of the current inquiry.

The application of these criteria yielded a final dataset comprising 80 academic publications deemed relevant for the subsequent conceptual analysis. The comprehensive flow chart of the selection process is presented in figure 1.
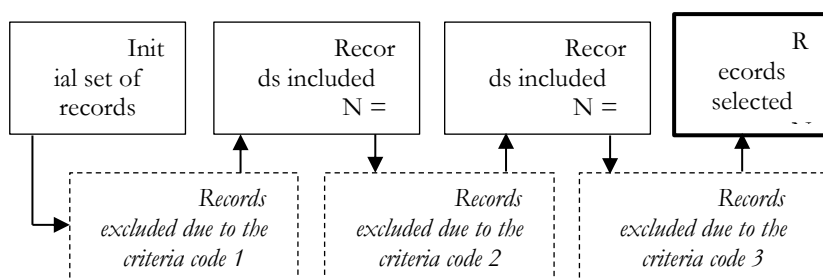

Figure 1. PRISMA-based chat flow of the records selecting process

The analysis of search results revealed a significant theoretical gap: while much of the literature centres on pre-purchase consumer behaviour, post-purchase engagement remains underexplored, particularly in relation to SMEs. This gap is notable given the growing importance of post-consumption practices related to the ReSolve framework as critical levers for prolonging product life cycles and advancing circular economy principles (Castellani et al., 2014; Burton, & Eike, 2025).

Stage 2. Development of the ECR lens and Behavioural Framing. Building upon this gap, the second stage entailed the conceptual development of the ECR framework, designed to reframe consumer roles as proactive agents of sustainability in the post-purchase phase. To substantiate the behavioural relevance of this lens, the Theory of Planned Behaviour (TPB) was employed as an explanatory model. TPB offers a validated theoretical foundation for understanding intention-driven behaviour and comprises three core constructs: personal attitudes, subjective norms, and perceived behavioural control (Becker-Leifhold, 2018); Alhamad & Donyai, 2021). Through content analysis and conceptual synthesis, the TPB model was adapted to contextualize post-purchase sustainability behaviours which covers action align the ReSolve framework. This adaptation enabled the articulation of behavioural antecedents relevant to post-purchase

engagement in fashion SMEs, ensuring both theoretical validity and managerial applicability. The strategic elements of the proposed post-purchase communication strategy were structured according to the TPB framework to promote attitudinal alignment, normative influence, and enhanced consumer agency.

Stage 3. Framework Integration and Strategy Formation. The final stage involved integrating the ECR and TPB-informed insights into a coherent strategic communication model tailored for fashion SMEs. This model conceptualizes the post-purchase communication loop as a feedback-driven system facilitating sustained consumer engagement, trust-building, and circular practices. In doing so, the proposed framework not only addresses the producer–consumer responsibility imbalance but also operationalizes ECR as a strategic pillar within sustainability-oriented business communication. Nevertheless, while this study provides a theoretically grounded conceptual framework ECR and its integration into post-purchase communication strategies, it does not include empirical testing or field validation of the proposed model. This limitation affects the generalizability of the findings, particularly in relation to the diverse operational realities of fashion SMEs. The absence of direct application in real-world settings means that the framework should be considered as a foundational proposition rather than a universally validated solution.

3. Conceptualization of the ECR through Behavioural Antecedents Perspective

The concept of ECR is considered as a critical lens to reframe sustainability communication strategies in the fashion industry, it implies emphasising of the consumers' active role in the value co-creation process through sustained engagement with the environmental and social impacts of their consumption beyond the point of purchase. Hence, this shift necessitates a comprehensive consideration of the enabling environment that shape effective sustained post-purchase consumer interactions in order to advance sustainability-oriented communication strategy efficacy (Kemi & Zilahy, 2025). The antecedents of such environmental development within the fashion industry, particularly in the Italian SME context, are multifaceted and encompass both organizational and consumer-related factors. that underpin the capacity for sustained engagement. They refer to the precursory conditions and factors that facilitate or hinder the adoption of sustainability-oriented post-purchase behaviours.

At the organizational level, resource allocation towards sustainability communication, leadership's commitment to embedding sustainability as a core brand value, and the degree of openness to innovation and risk-taking collectively influence SMEs' capacity to foster sustained consumer engagement beyond the point of purchase (Guan & Noor, 2021; Singh et al., 2022). It encompasses digital infrastructure capabilities, such as eco-label transparency tools, lifecycle tracking applications, consumer feedback platforms, and a culture that promotes knowledge sharing, continuous learning and adaptation in sustainability communication (Akram et al., 2022; Majer et al., 2022; Behre & Cauberghe, 2025. For SMEs often considered as resource-constrained one, these enablers are supported through participation in cooperative ecosystems such as the Italian textile consortia Rematrix, Retex.Green, and Cobat Tessile. These platforms enable even micro-enterprises to access shared services for eco-design, lifecycle traceability, and

regulatory compliance. For example, Rematrix offers a digital platform (iSystem) that supports innovation in end-of-life textile management, allowing SMEs to align with EPR requirements while experimenting with circular business models. Retex.Green, backed by Sistema Moda Italia, helps firms manage pre- and post-consumer waste while delivering training and R&D support, thus externalizing innovation and education functions that may otherwise be cost-prohibitive. Cobat Tessile, with its emphasis on transforming textile waste into new materials or energy, provides a voluntary model for SMEs to pilot take-back schemes or integrate waste streams into new product designs. Such cooperative ecosystem allows SMEs to demonstrate leadership commitment not necessarily through internal investment, but through strategic alignment with collective initiatives, thereby amplifying their sustainability narrative. Such collaborative efforts may include joining collaborative repair campaigns, embedding reuse incentives via consortium programs, or communicating consumer-facing results (e.g., volumes of reused products) via co-branded labels. Moreover, the organisational capacity for experimentation, such as piloting innovative consumer engagement initiatives (e.g., loyalty programs incentivizing repairs or returns, is a significant antecedent that influences both: organisational programs relevance and consumers responsiveness. These enablers can be operationalized through low-cost, high-impact actions such as using social media to highlight customer sustainability stories, establishing small-scale "repair corners" in-store, or co-hosting community reuse events with local organizations.

From the consumer perspective, antecedents are considered through the TPB as a foundational lens, which posits that individual behaviour is primarily influenced by three interrelated factors: attitudes toward the behaviour (e.g., belief in the importance of post-purchase sustainability based on the cognitive awareness regarding the environmental and social impacts of their consumption behaviors, and intrinsic motivation towards sustainable practices) (Song & Ko, 2017; Mishra et al., 2024; Teerakapibal, & Schlegelmilch, 2025); subjective norms (e.g., perceived social expectations about responsible consumption) (Maulani, & Fatmawati, 2025); and perceived behavioural control that reflects consumers ability to act responsibly (e.g., access to tools or knowledge needed to engage in reuse or recycling) (McNeill & Venter, 2019; Park & Lin, 2020; Hur, 2020; Zaidi & Chandra, 2025) These antecedents dynamically interact, establishing the foundational conditions necessary for effective post-purchase communication strategies that encourage consumers to assume extended responsibility for the lifecycle of their products, defining the readiness and ability of consumers to participate in circular economy practices (Xu et al., 2022).

Moreover, these antecedents do not act as static drivers, they may function dichotomously as either facilitators or impediments to fostering consumer responsibility. In this context, cognitive and motivational constructs, such as consumer awareness of sustainability imperatives and eco-conscious behavioural intentions, mediate the transformation of these antecedents into proactive drivers of sustainable post-purchase behaviour. This mediation operates through knowledge-enabling mechanisms at the organizational level (e.g., communication capacity and transparency) and knowledge application and sharing processes at the consumer level (e.g., comprehension of sustainability credentials and active participation in circular practices), thereby co-constructing a dynamic communicative environment conducive to sustained consumer

engagement. For instance, limited consumer knowledge or the perceived inconvenience of sustainable behaviours may hinder consumer participation. However, targeted communication strategies that enhance consumer education, leverage digital interactivity, and foster community engagement can help mitigate these barriers by cognitively reframing them into drivers of sustained post-purchase sustainability interaction and responsibility (Pizzutti et al., 2022; Bennetta & Oeppen 2022).

Central to operationalizing ECR is the formation of an enabling environment for post-consumption interaction characterized by systemic conditions and organizational capabilities that empower SMEs to nurture ongoing consumer engagement. This environment integrates adaptive communication infrastructures capable of incorporating real-time consumer feedback, thereby enabling iterative refinement of sustainability narratives and value propositions (Stål & Jansson, 2017; Lin et al., 2024; Zhang et al., 2024). Within such enabling environment development, the transformation of sustainable consumption barriers into drivers occurs through iterative cycles of engagement: barriers such as scepticism, lack of awareness, or perceived effort are addressed via tailored communication, co-creation opportunities, and visible recognition of consumer contributions, thereby shifting consumer perceptions and behaviours towards active participation in sustainability goals. Moreover, motivational frameworks that incorporate psychological constructs from behavioural theories (e.g., the TPB), align consumer intentions with actual sustainable behaviours by addressing attitudes, perceived control, and normative influences (Palomo-Domínguez et al., 2023; Dwikesumasari et al., 2024; Ortegón Cortazar et al., 2025). The confluence of organizational dedication, consumer empowerment, and multi-stakeholder collaboration creates a resilient ecosystem for post-purchase sustainability interaction within the Italian fashion SME sector. Therefore, positioning ECR at the centre of post-purchase sustainability communication strategies offers Italian fashion SMEs a pathway to transition from transactional consumer relationships to dynamic, value co-creation partnerships.

Hence, addressing the structural imbalance between EPR and ECR within sustainability governance requires a multidimensional policy approach that integrates behavioural, structural, and communicative drivers of sustainable consumption. Drawing on Kuhndt et al.'s (2006) policy typologies (i.e., regulatory, economic, voluntary, informational, and cooperative) as adapted in policy instrument frameworks (Rhodes et al., 2017; Gustafsson & Anderberg, 2021) and aligned with the behavioural dimensions of the TPB, this study proposes a framework for embedding ECR into policy. In this regard, regulatory instruments play a pivotal role by enforcing the implementation of consumer-oriented policies. For example, the Green Claims Directive could be extended not only to ensure truthful environmental messaging but also to mandate the provision of actionable post-purchase sustainability pathways—such as standardized guidance on product care, repairability, end-of-life options, and access to circular services like take-back schemes or repair hubs. This would help bridge the gap between awareness and action, reinforce consumer agency, and balance responsibilities across the product lifecycle. Similarly, integrating post-purchase consumer interactions indicators into the CSRD and ESRS would provide the ability to institutionalize accountability for consumer engagement. These instruments enhance SMEs' targeted integration of sustainability communication and improve consumers' perceived behavioural control. Economic tools, in turn,

incentivize both SMEs and consumers to engage in circular practices. These may include innovation grants or tax deductions for SMEs investing in consumer-facing sustainability tools or digital platforms that enable feedback, reuse, or repair tracking, and for consumers, eco-vouchers and rebates could reward circular behaviours (e.g., clothing return, reuse, or repair participation), addressing behavioural cost barriers. Voluntary mechanisms, such as development of ECR certification schemes and digital toolkits that guide SMEs in designing post-purchase communication strategies, help SMEs build reputational value and foster trust through transparent strategy of post-purchase consumer engagement. These tools shape subjective norms, enhance the perceived legitimacy of ECR practices, and foster relational trust between SMEs and consumers. Meanwhile, informational and educational instruments, ranging from national campaigns to digital content embedded in products, target cognitive antecedents of behaviour, equipping consumers with the knowledge and agency to engage meaningfully. Thereby, such tools enhance consumers' cognitive capacity and perceived behavioural control as core elements in driving behaviour change, outlined by the TPB, providing drivers to enact mindful consumption. Finally, cooperative instruments, such as multi-stakeholder innovation clusters that co-develop consumer engagement infrastructures (e.g., participatory apps for lifecycle tracking or sustainability storytelling), enable the development of dynamic, feedback-oriented infrastructures for post-purchase interaction. These mechanisms facilitate a shift from transactional to relational consumer engagement. Fostering ecosystems of co-created value and adaptive learning, they reduce fragmentation and unite SMEs, communities, and policymakers. Therefore, together these instruments offer a comprehensive foundation for recalibrating the sustainability policy paradigm from the perspective of the regulatory asymmetry, and disclose the potential of ECR as an institutionalized conceptual framework. Nevertheless, to ensure the effective adoption of these instruments, it is essential to simultaneously support the operationalization of ECR within business practice, particularly in high-consumer-involvement sectors such as fashion, by translating its principles into actionable strategies. In this context, structuring post-purchase communication emerges as one of the core mechanisms for extending consumer responsibility beyond the point of sale.

4. ECR-based Post-Purchase Communication Strategy Framework

In the context of intensification of the environmental and social sustainability imperatives, fashion companies, particularly SMEs in Italy, are increasingly expected to integrate sustainability throughout all stages of consumer interaction, including the post-purchase phase. Within this scope, the development of a structured post-purchase communication strategy emerges as a critical component. The concept of ECR offers a relevant framework, emphasizing the active role of consumers in contributing to circularity through practices related to the ReSolve framework, which in turn, highly dependent on the effectiveness of the post-purchase interaction with customers (Joung, 2014; Marciniak & Mohsen, 2016; Encino-Munoz, & Yilan, 2025). This perspective is closely aligned with the TPB, which, as previously discussed, provides a behavioural foundation for understanding and influencing consumer actions, hence ECR-based communication strategies are also structured align with TPB interrelated factors (attitudes, subjective

norms and perceived behavioural control) in order to go beyond raising awareness, aiming instead to empower consumers to engage meaningfully with sustainability goals. Table 1 presents the strategic elements of an ECR-driven post-purchase communication framework. These elements are designed with reference to the TPB, focusing on the enhancement of attitudinal commitment, the activation of normative pressures, and the strengthening of perceived behavioural control. Through sustained post-purchase interaction, this strategy seeks to transform sustainability intentions into consistent actions, reinforcing circular consumption behaviours and supporting broader sustainability transitions within the fashion sector, providing ability to operationalize circularity through behaviourally-informed communication infrastructures.

Table 1. Strategic Elements of ECR-based Post-Consumption Communication Framework:

Strategic Elements	Description	Communication Tools
Cognitive Activation: Enhancing Sustainability Attitudes	Communication that emphasizes the environmental and social benefits of post-purchase sustainable behaviour contributes to the formation of positive consumer attitudes and strengthens behavioural intention toward circular practices (Dethier et al., 2025). For Italian SMEs, leveraging local narratives (e.g., slow fashion traditions, regional craftsmanship) allow contextualizing of sustainability in culturally resonant terms.	- Storytelling campaigns about product origin and lifecycle. - Educational in-store materials and QR-linked digital content. - Testimonials showcasing consumer impact.
Social Framing: Leveraging Subjective Norms	Social influence functions as a significant driver of behavioural patterns (Salazar et al., 2013; Maness et al., 2015; Bhukya & Paul, 2023; Kapoor et al., 2023), with campaigns that emphasize community values, highlight peer behaviour, and utilize influencers or brand ambassadors aligned with sustainable lifestyles to reinforce normative sustainable behaviours.	- Collaborative campaigns with local eco-influencers. - Community-driven reuse or upcycling events. - Visibility of consumer participation metrics (e.g., "number of customers joined our repair program this month").
Consumer Empowerment: Enhancing Perceived Behavioural Control	Enhancing perceived behavioural control involves the provision of accessible mechanisms that allow consumers to participate in circular practices easily and confidently, thereby lowering engagement barriers and reinforcing self-efficacy (Domingos et al., 2022; Legere & Kang, 2020).	- Digital tools for booking repairs or resale (Liu, et al., 2023). - Eco-guides for garment care and end-of-life options. - Incentivized return systems (e.g., discounts or loyalty points for returns).

Furthermore, enabling the organizational capacity to operationalize the communication tools outlined in Table 1 within the development of an ECR-based post-consumption strategy requires the design of a structured post-purchase communication loop. Conceptualized as a feedback-driven system, it is intended to sustain and reinforce consumers' pro-sustainability behavioural intentions over time. It is composed of following interrelated components, combining digital and analogue strategies in order to enhance reach across demographically and digitally diverse regions:

- Initial Digital or Hybrid Follow-Up: Automated yet personalized messages post-purchase (via SMS, email, or printed materials at point of sale, paper-based inserts or QR code-linked audio-visuals accessible on low-bandwidth networks as alternative modes of interaction for areas with limited digital access), delivering educational content (e.g., eco-care instructions, estimated environmental impact savings, or repair/reuse advice) to encourage conscientious product use (Belenioti, et al., 2024).
- Sustained Engagement Touchpoints: Regular digital and physical prompts (e.g., email invitations, push notifications, newsletters, or physical community posters) inviting consumers to participate in sustainability-focused campaigns (e.g., textile returns, local repair events, peer-to-peer resale platforms, textile collection days, mobile repair vans, or neighbourhood clothing swaps) (Liu et al., 2024; Pookulangara et al., 2024: Owusu & Omari-Sasu, 2025).
- Bidirectional Feedback Integration: Tools for consumers to share insights or rate their sustainability experience (via surveys, ratings, or open comments), enabling SMEs to adapt services, content, and touchpoints based on lived behavioural data and user satisfaction (Shaver & Yan, 2022; Kang et al., 2024). In under-resourced or rural contexts, low-cost mechanisms such as community ambassadors or in-store tablets can facilitate data collection and behavioural monitoring.
- Recognition and Incentivization Mechanisms: Public or personalized acknowledgment of sustainable actions (e.g., digital badges, reward points, "eco-ambassador" programs, digital or physical certificates) to reinforce normative commitment and build emotional attachment to the brand's sustainability ethos (Singh et al., 2022). In rural contexts, low-tech approaches such as storefront displays or local media recognition (e.g., 'eco-customer of the month') can effectively promote visibility and peer-driven reinforcement.

To support sustained pro-sustainability behavioural intentions, Italian fashion SMEs should establish a continuous post-purchase communication loop, which effectiveness depends not solely on its conceptual design, but also on its cost-effectiveness, scalability, and adaptability to existing local infrastructure, particularly in rural or low-digitization areas. Moreover, shared regional infrastructures, such as collective repair databases or cooperative reuse marketplaces, allow for cost distribution across multiple SMEs, enhancing feasibility. Public-private partnerships and municipal support, including cooperation with local waste management companies or mobile services like repair buses, can further extend access to peripheral communities. To evaluate the impact of ECR-based communication strategies, SMEs it is reasonable to adopt multidimensional success indicators: cognitive metrics (such as percentage increases in consumer understanding of

product care and circular practices); behavioural indicators (such as the frequency of repeat participation in reuse or return programs, and the number of garments returned or repaired per month); participatory metrics (including the number of active users on post-purchase platforms, feedback channels, or engagement in community events); and reputational measures (such as Net Promoter Scores related to sustainability engagement and consumer perceptions of brand credibility in circularity). Therefore, implementing communication mechanisms that are culturally responsive, economically viable, and adaptable to local contexts, Italian fashion SMEs can evolve from transactional relationships to dynamic partnerships, enabling consumers to actively co-create circular value and thus realize the full potential of ECR. Such "communication loop" structure facilitates the internalization of sustainable consumption norms and transitions consumer behaviour from passive purchase to active responsibility as an essential tenet of ECR. Therefore, the development of post-purchase communication strategies grounded in the ECR paradigm prioritizes the enhancement of after-purchase sustainability-oriented consumer engagement, thereby supporting the broader transition toward sustainable consumption patterns. This process is guided by following core principles:

- embedment of the sustainability messaging into the core post-purchase value proposition (Grappi et al., 2024; Zhang et al., 2024). This involves aligning brand identity with shifting consumer values and the increasing societal emphasis on environmental responsibility (Sandberg, 2021; Seock et al., 2024);
- deployment of adaptive digital infrastructures, designed as modular and scalable ecosystems, enables functionalities such as repair history tracking, peer-to-peer exchange platforms, and the gamification of circular behaviours, thus facilitating active consumer participation in circularity (Sandberg, 2021; Ahmed et al., 2024);
- adoption of behaviourally related key performance indicators that provides effective evaluation of sustainability-related initiatives, measuring actual consumer actions rather than stated intentions. These indicators may encompass rates of product returns for reuse or recycling, engagement with digital lifecycle tools, and participation in circularity-oriented programs or educational content (Sijtsema et al., 2019; Sinha et al., 2022);
- segmentation based on consumer psychographics to ensure communication effectiveness, distinguishing among sustainability pioneers, passive adherents, and sceptics, aligning with the gender and generation perspective each requiring context-specific messaging and delivery channels (Haines & Lee, 2022; Cairns et al., 2022; Lu, et al., 2022; Barrera-Verdugo, & Villarroel-Villarroel, 2022);
- maintenance of stakeholder synergy and localized collaboration. Given the embeddedness of Italian fashion SMEs within local production ecosystems, collaboration with municipal authorities, digital service providers, and civil society organizations can generate synergistic initiatives (e.g., neighbourhood repair hubs, circular fashion districts) that diffuse sustainability norms and co-create shared infrastructure.

Hence, the introduction of the ECR concept establishes a comprehensive theoretical and operational framework for formulating integrated post-purchase sustainability communication strategies. For Italian fashion SMEs, this necessitates a strategic cultural transition toward value co-creation with consumers, extending beyond the point of sale to encompass the entire product lifecycle. Positioning consumers as active contributors to sustainability outcomes enables firms to move from passive awareness-raising toward fostering substantive engagement in post-purchase circular behaviours. This orientation redefines Italian SMEs as pivotal agents in the sustainable fashion transition, leveraging their artisanal heritage, organizational agility, and embeddedness within local communities. As such, the ECR-based framework offers a structured roadmap for developing behaviourally informed communication strategies that simultaneously advance sustainability objectives and cultivate deeper consumer-brand relationships within the evolving paradigm of responsible fashion.

5. Conclusion

This study highlights a critical imbalance in current sustainability governance within the fashion industry, specifically, the disproportionate emphasis on producer accountability across regulatory frameworks, which privileges upstream interventions while insufficiently addressing consumer engagement. Such asymmetry constrains the ability of SMEs, particularly those in the Italian fashion sector, to leverage their unique consumer proximity and cultural embeddedness for fostering sustainable consumption behaviours. To address this asymmetry the study introduces the concept of ECR as a foundational guideline for the development of post-purchase communication strategies that align consumer empowerment with sustainable consumption objectives. Accordingly, the study proceeds to articulate an enabling environment for ECR-based engagement, and a communication strategy framework tailored to fashion SMEs, providing theoretical and practical contributions to sustainability-oriented business transformation. From a theoretical standpoint, this work extends Lim's (2017) concept of mindful consumption by embedding it within the post-purchase phase. Situated between responsible and anti-consumption behaviours, the ECR framework, integrated with the TPB, reconceptualizes communication not simply as information delivery but as a behavioural infrastructure that maintains sustainable engagement. ECR thus offers a mechanism to overcome consumer avoidance of sustainability practices within Lim's integrated consumption model, by embedding structured, post-purchase communication as part of a broader toolkit for behavioural reinforcement. Therefore, the framework offers a novel theoretical bridge between mindful consumption and long-term circular practices. The study also engages with McNeill's (2018) model of collaborative fashion consumption, emphasizing the role of subjective norms, identified by TPB as crucial in shaping behaviour. ECR, in turn, enhances the social value of circular practices and reframes consumption as a participatory act, aligning sustainability with identity and belonging. In this way, ECR synthesizes insights from both TPB and McNeill's model to centre social dynamics as drivers of post-purchase behaviour change. From practical standpoint, such an approach enables SMEs to integrate sustainability into their post-purchase communication strategies while positioning consumers as co-responsible actors engaged in sustaining product life cycles,

supported by tools that foster transparency, feedback loops, and interactive education. A comprehensive understanding of the antecedents and enabling conditions of effective ECR implementation, viewed through the lens of sustainability-oriented communication, offers valuable insights into the internal and relational dynamics that shape organizational communication strategy effectiveness aimed to maintain sustainable consumption patterns. In addition, the study provides practical guidance for policymakers by proposing an integrated framework to embed ECR into sustainability governance, aligning consumer engagement with regulatory instruments to support long-term behavioural change beyond the point of purchase. Considering the limitations of the study, related to the field validation, future research is therefore essential to empirically test and refine the ECR framework across different SME contexts, assessing its practical viability, impact on consumer behaviour, and alignment with organizational capacities and regulatory environments. With this respect, longitudinal studies could be particularly valuable in assessing how ECR-based strategies influence consumer behaviour over time. Metrics such as repeat participation in reuse programs, interaction with digital content, and engagement in repair initiatives could offer insight into which tools are most effective in sustaining behavioural change. Such validation would enhance the practical utility of the model for SMEs and contribute to the refinement of ECR as a dynamic mechanism for sustainable consumption. Therefore, ECR represents a complementary strategic lever through which allows for policymakers and industry stakeholders providing a background for sustainable consumption as a complementary strategy for the sustainable production regulations. For Italian fashion SMEs, embedding these insights into post-purchase engagement frameworks enables the mobilization of consumers as collaborative agents in achieving environmental and social sustainability objectives within an increasingly dynamic and ethically conscious fashion ecosystem.

Acknowledgments

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