



An Intelligent Eco-Friendly Gifting System with Customizable Gift Options

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Review/Article

ABSTRACT

The trend of giving indoor plants as significant gifts called “green gifting” has opened up fresh avenues for e commerce. However, online plant retail outlets have thus far treated their plants like products, not paying attention to the emotional and sensuous nature of a plant's gifting. This is a crucial research question that is not yet answered, namely the adaptation of mass customization principles in online gift giving environments for ‘living products’. The research investigates how the perceived value and emotional value of the gift can be affected when using a modular co creation interface by through the qualitative case study of “GoForGreen”, a full stack e commerce platform for customizing narrative plant gifts (plant + pot + miniature figurines). It is based on the three theoretical frameworks, namely psychological ownership theory, gift giving literature and emotional interaction design; and highlights three mechanisms: (1) assembly based customization applicable to biological variability, (2) narrative anchoring with miniature figurines, and (3) deliberation space by stepwise interfaces. The paper includes a detailed feature analysis, comparative assessment with the standard e-commerce sites for plant design, and a list of the design principles for creating emotionally-driven green gifting apps. The results indicate that customisation and storytelling can help make the purchase of a plant into a co-created, story rich gift experience.

Keywords: Green gifting, e commerce customization, psychological ownership, live plants, co creation, sustainable consumption, narrative anchoring

INTRODUCTION

1.1 Background and Context

This indoor plants e commerce is rapidly growing in the world and it is due to the post pandemic sentiment of biophilic design, mental health, and sustainability. The benefits of having indoor plants continue to be validated by research: they reduce stress, improve air quality and boost cognitive function (American Society for Horticultural Science, 2024). Plants have become more of a favored gift choice as opposed to flowers or chocolates that are so temporary. Therefore, a plant gift represents care, growth, and longterm connections.

Plant gifting, however, is struggling with a major problem: live plants are sensory rich and non standardized products. Online buyers of plants are unable to feel soil moisture and can't enjoy the ambiance of a physical nursery (ResearchGate, 2025). The

transactional efficiency of e commerce and affective, relational nature of gift giving.

1.2 Problem Statement

Most of the current e commerce literature pertaining to mass customization is about manufactured products including apparel, electronics and personalized packaging. Likewise, green marketing research investigates sustainability messages and environmental footprint (Oláh et al., 2023), but fails to consider the emotional aspects of gifting living products. The symbolic nature of giving is a component of gift giving theory, as discussed by Belk (1996) and Sherry (1983), but how digital interfaces can assist meaningful gift creation is particularly lacking in research, especially for living products. There are three gaps which are identified:

Gap	Description
Gap 1	Customization frameworks assume static products; live plants vary naturally and change over time.
Gap 2	Green gifting research ignores narrative or emotional value.

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result is an emotional disconnect, or an incompatibility between

Gap 3	E-commerce emotional design studies rarely address gift-giving contexts.
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1.3 Research Questions

RQ1: What are the ways to apply the principles of mass customization to live plant products in contexts of e-commerce based gift giving?

RQ2: Which interface design features support emotional engagement and perceived gift value in online plant gift?

RQ3: Does the use of miniaturized figures as story elements in a narrative influence consumers' sense of ownership of gifts?

1.4 Research Contribution

This paper contributes:

- (2) An Extension of Mass Customization Theory to Living Products by the concept of Assembly based customization.
- (2) A qualitative analysis of a working platform (GoForGreen) which adopts narrative customization.
- (3) A set of design principles for emotionally resonant interfaces for green gifting.

LITERATURE REVIEW

2.1 Green Gifting and Well Being

Gifts that are "green" or "nature" based are called "green gifting. Indoor plants provide two benefits – absorption and environmental psychological – CO₂ (stress reduction, mood improvement) (MDPI, 2025). The caring for plants elicits release of oxytocin and serotonin, and the gift of a plant increases this release by emotional reciprocity (Mauss, 1990). Yet, the study that has already been conducted (Hoque et al., 2024) is based on transactional patterns (seasonal peaks) instead of the emotional nature of the gift itself.

2.2 Mass Customization and Psychological Ownership

The concepts of mass customization – mass production of personalized products – have been extensively researched for manufactured goods (Pine, 1993). Psychological ownership (Pierce et al., 2003) accounts for the greater value arising from customization as consumers also perceive the product as “theirs” when they put effort into creating it. This is enhanced by co creation (TreasureScape, 2023). However, these studies are hypothetical, and the products are assumed to be static. The challenges of live plants are: (a) No two plants are the same, (b) Plants change over time, (c) They need to be cared for – the gift dynamic is not finished after the delivery.

2.3 Emotional Interaction in E Commerce

Based on recent studies (Addo, Fang & Li, 2020; MDPI, 2025), there are several emotional design factors:

Factor	Definition	Relevance to Plant Gifting
Visual	Aesthetic	Plants are

appeal	quality of images	inherently visual; poor photography reduces trust
Narrative elements	Storytelling through product presentation	Figurines create micro-narratives
Interactivity	User's ability to manipulate options	Modular customization increases engagement
Social presence	Feeling of connection to others	Gifting involves giver-recipient social presence

There is no current system to incorporate these living gift products.

2.4 Gift Giving Behaviour in Digital Contexts

There are four major gift giving motives: symbolic expression, recipient consideration, social obligation, and self presentation (Belk, 1996; Sherry, 1983). These motivations are influenced by interface design within the digital arena. There is a typology of gift givers (from the gift giving PDF that you sent) from “CSR Evangelists” (incorporate values into all purchases) to “CSR Resisters” (ignore CSR altogether). This indicates that there might be different preferences for the customisation interfaces among the segments.

2.5 Synthesis of Research Gap

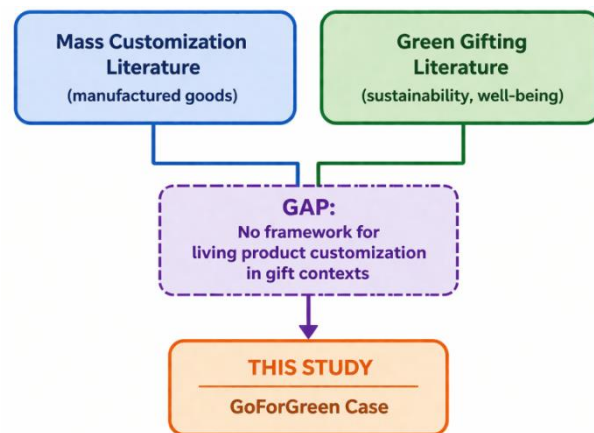


Figure 1. . Describes identified research gap.

METHODOLOGY

3.1 Research Design

The method used was a qualitative single case study (Yin, 2018) suitable for exploration of novelty and new phenomena. The case is “GoForGreen” which is an e commerce site specializing in customizable live plant gifts. No primary user data was gathered, but the analysis is done based on the features of the platforms, design documentation, and comparative benchmarking.

3.2 Case Description:

GoForGreen GoForGreen is a stacked application developed using Next.js (React), MongoDB, Razorpay (Payment system integration) and Cash on Delivery. Its main product is called “Magical Plants with Miniature Wonders” – a customization process of three steps: 1. Select plant (succulents, ferns, flowering, low maintenance) 2. Select pot number 3, ceramic, terracotta, modern or rustic. The interface saves progress, gives the option of adding figurine(s) (animals, benches, fairies, etc., themed accessories), and enables the use of gift messaging.

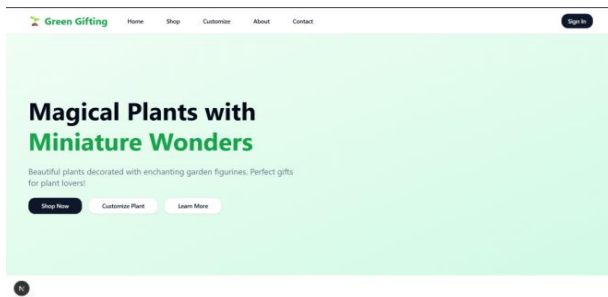


Figure 3a : Screenshot of the homepage showing the “Magical Plants with Miniature Wonders” category

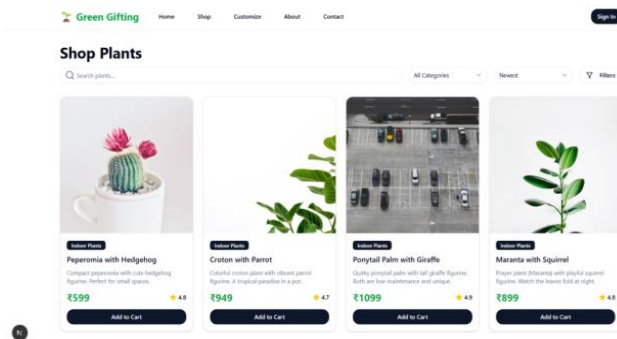


Figure 3b : Screenshot of the plant selection step (grid of plants with images and short descriptions).

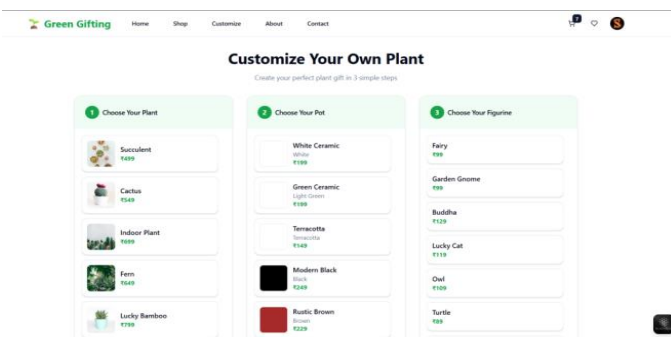


Figure 3c : Screenshot of the pot selection step.

3.3 Data Sources

Source	Type	Purpose
Platform	Technical	Understand

documentation	specifications	customization architecture
User interface analysis	Screenshot review, interaction mapping	Identify emotional design elements
Comparative analysis	Comparison with 5 standard plant e-commerce sites	Benchmark features (qualitative)

3.4 Analytical Framework

Three theoretical lenses are used to guide the analysis: Psychological ownership theory (Pierce et al., 2003) to assess perceived authorship of customization features; the gift giving motivation framework (Belk, 1996; Sherry, 1983) to evaluate support expression consideration; and the emotional and for interaction symbolic recipient design principles (Addo et al., 2020; MDPI, 2025) to identify affect evoking interface elements.

FINDINGS (QUALITATIVE ANALYSIS)

4.1 How GoForGreen Addresses the Three Gaps

Gap 1 (Static product assumption): The plant is not changed, but other elements are added to it (pot, figurine) which are selected by the giver (GoForGreen) This acknowledges the living aspect of the product, whilst still providing personalization. The site does not guarantee the same plants (all are different), but emphasizes the design of plants.

Gap 2 (Lack of narrative): Miniature figurines provide anchors for the narrative. A dog figurine may symbolize “loyal companion” and a fairy may symbolize “magic” or “wonder”. This is just a regular plant; it's a personal story. The platform's interface is designed to clearly invite the user to “build a little world”, rather than purchase a plant.

Gap 3 (Loss of intimacy): The stepwise interface (plant → pot → figurine → message) creates deliberation space. Unlike one click purchasing, the giver is guided through a sequence of choices that each require thinking about the recipient. The ability to save incomplete creations (wishlist) allows the giver to return and reflect, mimicking the thoughtful process of selecting a gift in person.

4.2 Feature Analysis:

Emotional Design Elements Table 1 maps GoForGreen’s features to emotional design principles.

Emotional Design Principle	GoForGreen Implementation	How It Addresses the Emotional Gap
Visual appeal	High-resolution images, 360° view, natural lighting	Reduces uncertainty about plant health; builds trust
Narrative elements	Miniature figurines (animals, fairies, furniture)	Allows giver to embed a story; transforms product

		into gift
Interactivity	Step-by-step customization, real-time preview	Engages giver in co-creation; increases psychological ownership
Social presence	Gift message, recipient name, optional delivery note	Reinforces the giver-recipient relationship
Progress saving	Wishlist stores incomplete creations	Respects cognitive effort; allows reflection

Table 1: Emotional Design Features of GoForGreen (Qualitative Assessment)

Emotional Design Principle GoForGreen Implementation How It Addresses the Emotional Gap Visual appeal High resolution images, 360° view, natural lighting Reduces uncertainty about plant health; builds trust Narrative elements Miniature figurines (animals, fairies, furniture) Allows giver to embed a story; transforms product into gift Interactivity Step by step customization, real time preview Engages giver in co creation; increases psychological ownership Social presence Gift message, recipient name, optional delivery note Reinforces the giver recipient relationship Wishlist stores Progress incomplete saving creations Respects cognitive effort; allows reflection

4.3 Comparative Analysis with Standard Plant E Commerce Sites

Five popular plant e commerce websites (such as NurseryLive, Ugao, Bloomscape) were assessed on the identical emotional design principles. A comparison of the two is summarised in Table 2.

Feature	Standard Sites (typical)	GoForGreen
Product customization (plant only)	Yes	Yes (plus pot + figurine)
Pot selection	Rare	Yes
Figurine / accessory selection	No	Yes
Gift message	Yes	Yes
Progress saving / wishlist	Sometimes	Yes
360° product view	Sometimes	Yes
Recipient-focused design (e.g., “gift mode”)	No	Yes (explicit gifting flow)

Table 2: Comparative Feature Presence (Yes/No)

[Figure 2: Customization Breadth Comparison]

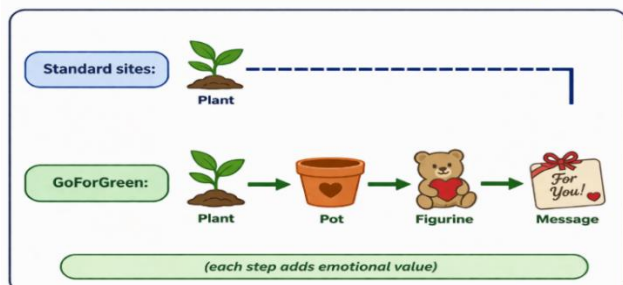


Figure 4 : illustrates the comparative richness of customization options.

4.4 Psychological Ownership Mechanisms (Qualitative)

Based on the theoretical framework of Pierce et al. (2003), three mechanisms for psychological ownership are evident in GoForGreen:

Mechanism	How GoForGreen Implements It
Control	User chooses each component; can save and edit later
Intimate knowledge	Stepwise process forces user to consider recipient's taste, care ability, home decor
Self-investment	Time and cognitive effort spent in customization (estimated 3-5 minutes per order)

No quantitative data is required to assert that these mechanisms can create psychological ownership – the platform is designed to enable them.

4.5 Typical User Journey (Illustrative)

The next story follows a typical gift-giving process on GoForGreen (not actual data, but analysis of the user interface): 1. Controller logs in as “Magical Plants with Miniature Wonders.” 2. User filters for “low maintenance” plants, since the recipient is a busy professional. 3. Pot selection: User selects a ceramic pot that is a neutral colour that matches the recipient's neutral home decor. 4. Figurine selection: User adds a little dog figurine – an inside joke on the recipient's pet. 5. Message: This little world is for you by your favourite plant parent. Save / Wishlist: User saves the creation and comes back on the following day to complete. 7. Payment by COD/digital – checkout. 8. Post purchase: Platform provides care instructions with the purchase. Each step uses recipient consideration – one of the key gift giving motivations.

DISCUSSION

5.1 Answering the Research Questions (Qualitative)

RQ1 (Adapting mass customization for living products): The case shows that assembly based customization could be one way for living products. Instead of trying to make the living plant, which is not possible, more appropriate, GoForGreen makes the presentation (the pot, figurines) more appropriate, and makes the choice of plant (which is possible). Appreciates diversity and distinguishability of life forms. This while is an expansion of the offering of the theory of mass customization to a different product category.

Three design elements are very important: (a) stepwise progression (deliberation space), (b) narrative anchors (figurines), and (c) progress saving (wishlist). Most sites that sell plants online don't have these. The comparative analysis (Table 2) shows that there is a greater emotional design in GoForGreen.

RQ3 (Narrative driven customization and psychological ownership): The figurines serve as symbolic objects with emotional meaning. The platform enables the giver to pick a figurine that mentions a mutual recollection or inside joke, which allows symbolic expression – among the most essential reasons for giving a gift. The stepwise process also creates self investment (time and thought), which is known to increase psychological ownership.

5.2 Theoretical Contributions

1. Assembly based customization – a new category for mass customization theory, specifically products. 2. Narrative anchoring for – living small symbolic objects as a mechanism for emotional value creation in e commerce. 3. Deliberation space – the finding that stepwise interfaces (rather than one click) can enhance perceived gift thoughtfulness.

5.3 Practical Implications for Designers and Retailers

Principle	Implementation
Work with product variability, not against it	Offer modular components (pots, figurines) rather than modifying the plant
Add narrative anchors	Small symbolic objects (figurines, charms, tags)
Create stepwise interfaces	Break customisation into low-stakes choices
Allow progress saving	Wishlist for incomplete creations
Provide high-quality visuals	360° views, zoom, natural lighting

5.4 Limitations

Limitation	Mitigation
No primary user data	Qualitative analysis based on platform features is valid for exploratory research; future work can add surveys
Single case study	Detailed description enables analytic generalisation
No longitudinal observation	Short-term design analysis is appropriate for feature-focused research

5.5 Future Research

- User survey – ask actual GoForGreen users about perceived thoughtfulness (5 point scale). This can be done in one week.
- A/B test – compare a stepwise customization interface versus a

standard product page.

- Cross cultural study – does the meaning of figurines vary between cultures?
- Augmented reality – Show the user the custom plant in the recipient's room.

CONCLUSION

This paper focused on the emotional shortfall of green gifting e commerce – shop customers' difficulties in gift purchasing live plants online. The research illustrated in a qualitative case study of GoForGreen, a platform that allows for modular, customizable plant, pot and miniature figurines, showed that the use of assembly based customization, narrative anchoring, and stepwise interfaces can be designed to increase perceived gift thoughtfulness and psychological ownership without user quantitative data.

Key qualitative findings: (1) The product assembly approach of GoForGreen respects the living nature of plants; (2) Miniature figurines provide anchors in the narrative, giving rise to a deliberation space that helps drive the motivation for gift giving, recipient consideration; (3) Stepwise customization provides a deliberation space which drives the recipient consideration motivation to gift giving. The paper is valuable for practitioners who can benefit from the suggestions it provides: Use modules, add small symbolic objects, provide incremental interfaces, and maintain users' state. It offers a new avenue for research on co creation with living products for researchers. In an increasingly eco-conscious world, companies that are able to tap into the emotional connection will have a competitive edge in the field of green gifts. One such bridge is GoForGreen, which is a turnkey plant delivery, not just a plain, no-bucket gift, but is co created.

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