Zero-Waste Grocery Shopping App

Rajat Burde

UI/UX Designer | Full Stack Developer



Brief

With growing concerns about **environmental impact**, consumers seek **eco-friendly shopping alternatives**, but most e-commerce platforms lack clear **sustainability indicators** and **incentives**. This project aims to design a **sustainability-focused e-commerce platform** that provides transparency on **product sustainability, rewards eco-conscious choices**, and **tracks product lifecycle**.



Table of contents



Discover

Introduction, What's Trending, History, Market Analysis & Competitors



Dream

Concept Direction & Brainstorming



Define

Persona. Empathy Map, CJM, Problem Statement & HMW Statements



Design

Low-Fidelity Wireframes, High-Fidelity Wireframes & CJM (to be)

01 DISCOVER



+

Domain Introduction

FMCG (fast moving consumer goods)

Fast-Moving Consumer Goods (FMCG) are **everyday products** like **food**, **beverages**, **personal care items**, and **household goods**. These products sell quickly and are produced in **large quantities**.

In recent years, sustainability has become a big focus in the FMCG industry. Many brands are trying to reduce plastic waste, lower carbon emissions, and use eco-friendly packaging. Consumers are also looking for greener options, which is pushing companies to adopt better practices.



Eco-Innovation: What's Trending?

Eco-Friendly Packaging

Sustainable packaging solutions reduce environmental impact through recyclable, biodegradable materials.

Circular Economy Initiatives

Circular economy models like product resale, repair, and recycling extend product life and reduce waste.

Transparent Supply Chains

Consumers prioritize ethical sourcing and transparent supply chains for fair labor and environmentally friendly practices.

Technological Innovations

Al and AR enhance personalized shopping experiences and improve operational efficiency.

Carbon Footprint Management

Businesses focus on carbon accounting to measure and reduce carbon footprints effectively.

Social Commerce and Consumer Behavior

Social media platforms make shopping easier but require balancing convenience with sustainable consumption.



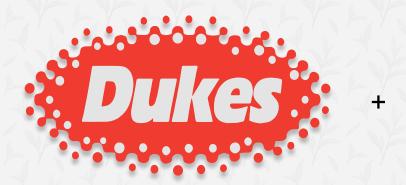
Brand Introduction

Dukes India (1988)

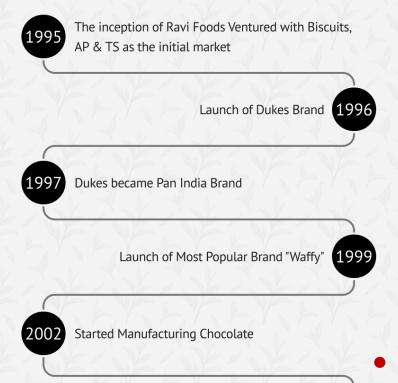
Dukes India is a well-known FMCG brand in India, mainly recognized for its biscuits, wafers, chocolates, and confectionery products.

The brand has been in the market for years and is popular for its wide range of affordable and tasty snacks.

Dukes focuses on **quality**, **taste**, and **affordability**, making it a trusted name among **Indian consumers**.



History Dukes India





Market analysis

Dukes India (1988)

- The Indian **FMCG** market was valued at **\$230.14** billion in 2023, with a projected growth to **\$1,288.50** billion by 2030, showing a **27.9%** CAGR.
- **Dukes India** specializes in **biscuits**, **wafers**, **chocolates**, and **confectionery**, with biscuits contributing **50%** of its **\$66** million **revenue in 2012**.
- Major FMCG players in India include Britannia, Parle, ITC, Nestlé, and Mondelez (Cadbury).
- Key market trends include premiumization, a focus on healthier snacks, and the growth of e-commerce.
- **Challenges** in the sector include rising **commodity prices** and intense competition requiring constant **innovation**.

Dukes India

FY 2023-24 Highlights

- Dukes India increased its production capacity to 25,000 tonnes per annum, aiming to meet growing market demand.
- Initiated the use of recyclable materials in packaging to **reduce** environmental impact.
- Focused on eradicating hunger, poverty, and malnutrition through various programs.
- Supported initiatives to improve **healthcare infrastructure** and **promote primary education** in underserved communities.
- Engaged in activities aimed at preserving Indian art and culture.

Competitor Introduction





Britannia

Leading brand in biscuits, cakes, and dairy products across India.



2

Parle

Popular for biscuits, snacks, and confectionery, widely loved in India.



3

ITC Sunfeast

Known for quality biscuits and cakes in the Indian market.



4

Nestlé

Global food company renowned for chocolates, confectionery, and beverages.





Mondelez

Famous for chocolates, biscuits (Oreo), and beverages like Bournvita.

•

SWOT (Britannia)

Strength

- Strong Global Brand.
- Wide Product Portfolio.
- Extensive Distribution Network.
- Digital marketing and e-commerce integration.

Opportunities

- Upcoming dairy products.
- Demanding healthier products.

4

- Enter foreign markets.
- Strengthen D2C channels



Weakness

- Over dependence on biscuit business.
- Limited global presence
- Dairy business struggles.

Threats

- Intense Competition
- Rising Raw Material Costs

SWOT (Parle)

Strength

- Market Leadership Iconic brands like Parle-G.
- Extensive distribution network.
- Affordable products.
- Strong brand loyalty.

Opportunities

4

- Rising demand for healthier products.
- Expanding e-commerce and D2C.
- Leverage social media marketing.
- Product diversification into snacks



Weakness

- Slow digital adoption.
- Limited focus on premium products.
- Dependence on Parle-G.
- Low innovation in new products.

Threats

- Intense Competition.
- Rising raw material costs.
- Shifting preference for premium and health-focused offerings

Primary Research Questions

Personal Interview

- Do you usually check if a product is eco-friendly or sustainable before buying it? Why or why not?
- What kind of sustainable practices would you like to see in brands that sell snacks and biscuits?
- Would you prefer buying from a brand that is transparent about its environmental efforts?
- What would encourage you to choose a sustainable product over a regular one — price, rewards, packaging, or something else?
- If a **shopping app** showed how much **carbon footprint** your **purchases** generate, would that **affect your buying decisions**?
- Do you think features like repair, reuse, or recycling tracking can work for snack product packaging?



Primary Research Insights

Personal Interview

- Most users had heard of sustainable products, but only few have checked for sustainability labels when shopping. They felt it's still not easy to identify which brands are eco-friendly.
- All users agreed that they would prefer to buy from a brand that clearly shows their sustainability efforts like using recycled packaging or reducing plastic use.
- Many of the users said that discounts, cashback, or eco-points would make them more likely to choose a greener option, even if it costs slightly more.
- Most users brought up concerns about plastic-heavy packaging in snacks.
- Most people didn't think it made sense to track how biscuits and wafers
 are reused, repaired, or recycled. But they liked simpler ideas, like using refillable
 containers or wrappers that can break down naturally.



02 DEFINE





Aditi Sharma

Age : 27

Occupation: IT Professional

Location

: Bangalore, India

Income

: ₹35,000/month

Lifestyle

: Urban, socially aware, health & eco-conscious

Bio:

An eco-conscious millennial who prefers sustainable products but struggles with unclear labels and limited eco-options on online platforms.

Goals:

- Shop responsibly with minimal environmental impact.
- Support genuinely sustainable brands.
- Track carbon footprint from online purchases.
- Reduce single-use plastic and packaging waste.

Frustrations/Pain Points:

- Difficulty verifying if a product is truly eco-friendly.
- Gets misled by greenwashing and marketing buzzwords.
- Lack of incentives or rewards for choosing sustainable products.
- No tracking of environmental impact post-purchase.

Tech Comfort Level:

Highly comfortable with tech, Uses apps like **Amazon**, **Swiggy**, **Myntra**, and **Google Pay** daily.

It's hard to know which I try to choose eco-friendly Am I really making a What if this is just brands are actually products whenever possible. marketing talk? difference by buying this? sustainable. Why don't platforms make I wish I got rewarded for making good choices. sustainability more visible? Says Thinks Does Feels Researches eco-products Frustrated with vague or online. misleading product claims. Anxious about contributing to Checks product reviews, Compares multiple brands Motivated but unsure if her environmental harm ingredients, and packaging before buying. efforts truly matter. unknowingly. claims.



A user is trying to purchase eco-friendly snacks through an e-commerce platform and finding products that align with sustainable values.

DISCOVER	CONSIDER	COMPARE	PURCHASE	POST-PURCHASE
Searches for eco-friendly snacks	Checks product details & packaging info	Compares brands, reads reviews	Adds item to cart & places order	Uses product, shares on social media
Google Amazon Flipkart	Product pages Brand websites	Product reviews Blogs, forums	E-commerce app Website	Delivery experience Product usage
No filter for "eco-friendly" products	Confusing or vague sustainability claims	Difficult to compare sustainability across products	No reward for sustainable purchase	No info on environmental impact of her purchase
Introduce sustainability filter/tag system	Provide verified eco- certifications & clear sustainability badges	Add visual sustainability score for quick comparison	Introduce points/rewards system for eco-conscious shopping	Add carbon footprint da and lifecycle tracking

Problem Statement

Modern e-commerce platforms lack transparency in product sustainability, making it difficult for users to identify genuinely eco-friendly options.

There is also **no motivation** or **reward system** that encourages users to adopt **sustainable shopping habits**, resulting in **low engagement** with **eco-conscious choices**.



HMW Statements



How might we make it easier for users to identify truly sustainable products while shopping online?



How might we motivate and reward users for choosing environmentally responsible products?



How might we provide clear and trustworthy sustainability metrics during the shopping experience?



How might we help users track the environmental impact of their purchases postdelivery?

O3 DREAM



+

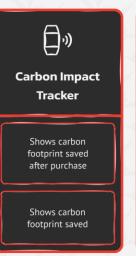
Concept Directions



Description

Benefits

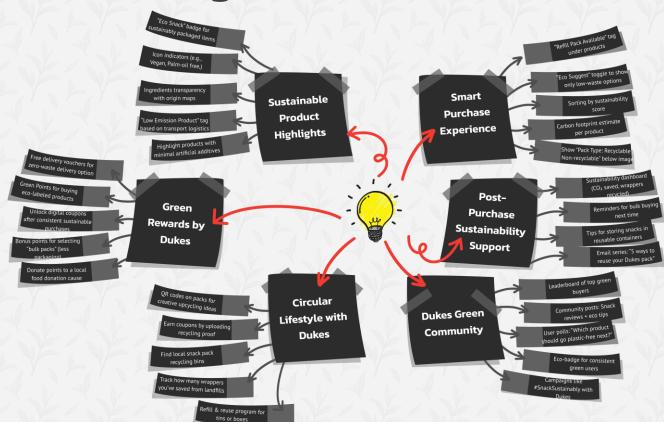








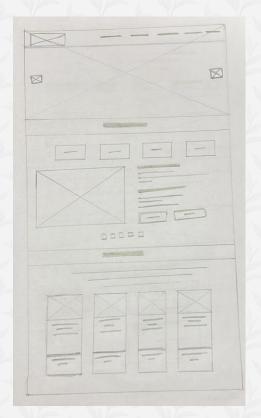
Brainstorming



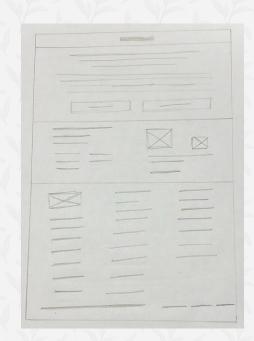
04 DESIGN



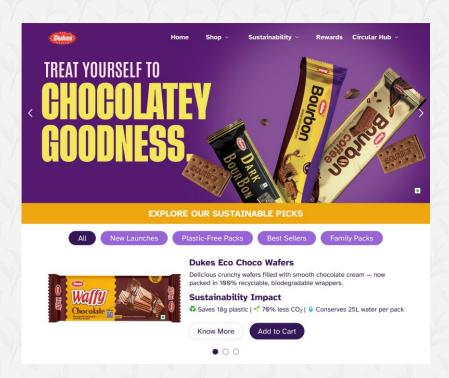
Low-Fidelity Wireframes







High-Fidelity Wireframes





High-Fidelity Wireframes

DUKES GREEN REWARDS

Every sustainable purchase earns you Green Points. Redeem them for exciting discounts, exclusive offers, or even contribute to environmental causes making your shopping habits count beyond the cart.



WHAT OUR ECO-SHOPPERS SAY

From better taste to a better planet - here's what our community says about shopping sustainably with Dukes.



I love how easy it is to see a product's eco-score. Makes guiltfree snacking real!



Clean ingredients, no plastic guilt, and I earn points? Dukes nailed it.



Nikhil S.

The green rewards program actually motivated me to recycle more. Great initiative!



I never thought snacking could feel this responsible. "Dukes makes going green so effortless.



We're more than a snack brand - we're a movement towards mindful consumption.

At Dukes, we're committed to reducing our environmental footprint through recyclable packaging, conscious sourcing, and customer empowerment. Every step we take is a promise to make tomorrow greener - one bite at a time.

Explore Our Eco-Journey

Start Shopping Consciously

Want to see how far we've come in building a greener tomorrow?

2023 Sustainability Report - 2020 Sustainability Report -





"Sustainability is not a trend for us - it's a responsibility. Every choice we make is towards a cleaner, greener India."

2022 Sustainability Report → 2019 Sustainability Report → Dukes India Sustainability Team

2021 Sustainability Report -

Quick Links

Follow Us Instagram

Company Careers

About Us

Home

Shop

FAQs

LinkedIn

Events

Green Rewards

Facebook YouTube

Blogs **Investor Relations**

How It Works

Sustainability Journey

Contact us

Copyright © 2025 Dukes India. All Rights Reserved.

Privacy Policy Terms ⊕ English ▼

AWARENESS

Searching for sustainable

Exploring & reviewing products

JATE PURCHASE

Adding to cart & selecting delivery

RECEIVE

Receiving the product

REFLECT & ENGAGE

Viewing impact & joining challenges

- Dukes homepage
- Search bar
- Eco-filters

snacks

Product listings & details page

- Cart
- Checkout
- · Delivery options

- Delivery package
- QR on pack

- · Green dashboard
- Community tab

Easy-to-use "Eco-Friendly" filter, personalized green suggestions

Clear eco-tags, sustainability scores, carbon impact, transparent info Earn Green Points, bulk-buy suggestions, plastic-free delivery option Recyclable/reusable packaging, QR links to upcycling tutorials Track CO_2 saved, green badges, fun monthly eco challenges









Conclusion

This project aimed to bridge the gap between **sustainability** and **user-centric design** by creating a **platform** that empowers users to make **eco-friendly shopping choices**. Through strategic **UX research**, **competitor analysis**, and **user-driven insights**, Crafted a solution that not only promotes **responsible consumption** but also aligns with the **brand's vision**.

The final outcome demonstrates how **thoughtful design** can drive **behavioral change**, enhance **brand value**, and contribute to a **greener future**. With the proposed **features** and **sustainable touchpoints**, this **e-commerce solution** for **Dukes India** lays the foundation for a **smarter**, **cleaner**, and more **conscious** way to shop.





+

Thank you





