**Email & SMS Campaign Builder Module Documentation**

## 📧 Overview

A standalone yet integrable module for automated, AI-powered Email & SMS campaign creation, delivery, and analytics tailored for ecommerce brands in the beauty/skincare space. Supports:

* Prebuilt campaign templates (restock alerts, sale teaser, UGC winner announcements)
* Automated generation of subject lines, email/SMS copy, and CTA links using OpenAI
* Customer mapping via inbox/comments/order history uploads
* Rate limiting and anti-overflow logic
* Manual, Assisted (AI), and Fully Auto modes

## ⚖️ Use Cases

* Automatically notify customers about:
  + Product restocks
  + Campaign outcomes
  + Seasonal offers
  + Recommended product bundles
* Reach customers who commented on FB/IG with mapped identity
* Tie Email/SMS to reward engine, abandoned carts, wishlist triggers

## 💡 Feature Breakdown

### 1. 🔹 Campaign Types (Prebuilt + Custom)

* **Prebuilt Templates**:
  + Restock Alert
  + UGC Campaign Winner
  + Flash Sale Notification
  + Blog Highlight Teaser
  + Personalized Bundle Recommendation
* **Custom Campaigns**:
  + Brands can start from scratch
  + Compose their own triggers + segmentation

**How to Build**:

* Template Library stored in MongoDB
* Each template includes:
* {  
   "template\_id": "flash\_sale",  
   "title": "Big Savings on Your Faves!",  
   "subject\_prompt": "Create a catchy subject line for a 3-day skincare sale",  
   "body\_prompt": "Announce the sale, add 3 product suggestions, CTA to shop now",  
   "cta\_link\_type": "collection",  
   "utm\_params": {...}  
  }

### 2. 🔹 AI Campaign Generator

* Auto-generate:
  + Subject line / SMS intro
  + Email body with personalized tone, emojis
  + CTA links: to product, collection, blog
  + Segment suggestions (e.g. “frequent buyers”, “abandoned carts”)

**Prompt Example**:

Write a short email to announce a 3-day flash sale for oily skin products. Mention hot weather, discounts, and include emojis.

**Endpoints**:

* POST /generate-campaign
  + Payload: template\_id, brand\_tone, sale\_items, campaign\_goal
* POST /send-preview
  + Sends preview to brand email/number

### 3. 🔹 Customer Mapping Engine

* Use customer uploads + inbox sync to enrich email/SMS list
* Match FB/IG comments to users using:
  + Inbox replies
  + WhatsApp entries
  + Website order phone/email
* GDPR compliant, user-controlled export/delete

**Tables**:

* customers, mapped\_channels, campaign\_logs

**How to Build**:

* Matching logic: fuzzy match on name + phone
* Consent tracking: gdpr\_accepted field per customer

### 4. 🔹 Smart Scheduler + Frequency Cap

* Set delivery intervals: hourly, daily, weekly
* Suppression logic:
  + No more than 2 campaigns per user per 24h
  + Auto-hold if campaign type sent recently

**Config Panel**:

* Campaign mode: Auto / Assisted / Manual
* Max messages/day
* Enable per platform: Email / SMS / Both

### 5. 🔹 Analytics & Reporting

* Opens, Clicks, Conversions
* UTM parameter builder per brand
* Track CTR per CTA link
* Opt-out logs and bounce tracking

**Dashboards**:

* Top campaign performers
* User journey impact (email > site > purchase)
* SMS vs Email comparison

## 🛍️ Admin / Brand Controls

* ✅ Toggle Email/SMS module per brand
* ✅ Upload email/SMS credits per month
* ✅ GDPR: Export/Delete requests + audit
* ✅ Brand-specific sender name, SMS mask

## 🚀 Tech Stack

* Backend: Node.js + MongoDB + Redis + Twilio + SendGrid
* AI: OpenAI GPT-4 Turbo / fine-tuned LLM (optional)
* Frontend: Next.js
* Email Templates: MJML-based auto design engine

## 🌐 Future Enhancements

* AI subject line A/B testing
* Trigger-based sends (e.g. restock webhook, cart abandoned)
* Personalized product carousels in email
* Festival-aware copywriting (localized)
* Shopify+Woo triggers to sync events

## 💪 Integration Hooks

* POST /sync-orders
* POST /sync-inbox
* GET /user-preferences
* POST /trigger-campaign

## ✅ Summary

This module creates automated but brand-personalized communication flows that drive traffic, reactivate users, and increase UGC loop. Designed to respect user preferences and superadmin-level usage caps.

All content is AI-assisted and respects tone + delivery limits. Fully independent yet natively connected to other modules like UGC, Post Manager, and Customer Brain.

**Standalone?** ✅  
**GDPR Support?** ✅  
**AI Copy Gen?** ✅  
**Cross-Platform Reach?** ✅