CASE STUDY

Self-Learning SKU Recommender Generates 18% Revenue Uplift in 3 Months

Solving a complicated set of market challenges faced by a CPG giant with one user-friendly AI tool

Our client, a global CPG conglomerate producing a wide range of personal care, health care, and home care brands, needed an SKU recommender that could do quite a bit more than just making recommendations for a handful of products. To be specific, they needed to come up with store-level SKU recommendations for 1.3 million stores across 40 distributors and 800 branches.

This recommendation tool would suggest which base and new SKUs to push at each store and the right quantity of each SKU for that store; it would also provide the rationale behind its suggestions. And this tool had to be mobile-friendly and very simple to use.

It was another challenge that could only be solved by AI.

More Revenue, More Accepted Recommendations

Just three months after this AI-powered sales tool made its debut, the impact was already evident:

- 18% uplift in revenue
- 42% of SKU recommendations were accepted by stores
- 72% of unique recommended SKUs were accepted by stores

What was behind such success? An intelligent recommendation engine that combined multiple data types (e.g. site info, store info, brand, category, unit sales, etc.) with a combination of advanced AI and ML techniques.

An Ensemble Approach to SKU Recommendation

To deliver effective SKU recommendations, we had to do more than just present one recommendation backed by one piece of data. We had to give our clients a complete picture and give their customers a good reason to accept these recommendations. To that end, we used AI to find "like" stores and analyze SKU performance at such locations. We also searched for purchasing patterns to indicate which SKUs were usually bought alongside a given SKU.

In all, this required a long list of AI and ML techniques, including segmentation (by channel, SKU, and price premium classification), market basket analysis, collaborative filtering, and SKU prioritization. A self-learning analytics engine was used to generate weekly recommendations and update the Recommendation Datamart with the most current info on stores and SKUs.

We packaged this complex piece of technology in a simple app that users could access via tablet, mobile, or desktop. This allowed the sales team to view per-store recommendations, track and compare recent performance, and optimize their visits in just a few taps.

AI-Powered SKU Recommender Boosts Purchases, Revenue

To finalize the SKU Recommendation tool before implementation, we used it in the field with 1,000 stores and five channels for three months. In that time, it successfully boosted store purchases and optimized revenue for our clients.