ahatis
forward thinking.
solution focused.

Price Pack Architecture (PPA)

In the hyper-competitive Consumer Packaged Goods (CPG) landscape of 2026, static pricing is a liability. **ahatis** provides the best **Agentic Price Pack Architecture (PPA)** though it's **A-REP™** solution that transforms the "last mile" of commercial execution from manual observation to autonomous, context-aware action.

The ahatis solution isn't just a dashboard; it is an intelligent ecosystem powered by **A-REP™**—your autonomous **ahatis Representative**. Unlike traditional software that merely flags a price gap, **A-REP™** operates as a proactive partner, synthesizing real-time retail signals, competitive maneuvers, and environmental factors to protect your brand's premium status.

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ahatis A-REP™ Design: Price Pack Architecture (PPA)

1. The Core Metric: Normalized Price Logic (Unit Price)

To allow consumers to evaluate value across varying sizes, the system must calculate a **Normalized Unit Price**.

- **Logic:** The system must support a Price per Standard Unit (e.g., Price per Ounce, Price per Liter, Price per Wash).
- **Formula:** {Unit Price} = {Retail Selling Price (RSP)} \ {Pack Size (Volume/Weight/Count)}
- **Requirement:** Users must be able to toggle views between "Shelf Price" (psychological) and "Unit Price" (value) to detect where the consumer sees the best "bang for their buck."

2. Price-Size Slope & Variance Analysis

A healthy PPA follows a "regressive" slope, meaning as the pack size increases, the price per unit should generally decrease. The functional design must monitor the **Acceptable Price Variance**.

A. Internal Size Variance (The "Step-Down" Rule)

The system must flag inconsistencies where a larger pack is more expensive *per unit* than a smaller pack (a "Price Inversion").

- **Thresholds:** Define acceptable "Unit Price Gaps" (e.g., a 2x larger pack should offer at least a 10-15% discount per unit to incentivize the upsell).
- **Logic:** If the variance between a "Small" and "Large" pack shrinks too much, consumers will stay with the "Small," hurting the brand's volume-per-trip metrics.

B. Competitive Variance (Direct & Adjacent)

The tool must benchmark your Unit Price against two distinct tiers:

1. **Direct Competition:** Brands in the same category (e.g., Coke vs. Pepsi).
    - *Rule:* Maintain a specific "Price Index" (e.g., our brand must be within 105%–110% of the primary competitor's unit price).
2. **Adjacent Competition:** Products that satisfy the same need but are in different formats or sub-categories (e.g., Premium Potato Chips vs. Pretzels or standard Popcorn).
    - *Rule:* Monitor "Price Out" thresholds. If the adjacent category becomes 20% cheaper per unit, shoppers may switch categories entirely.

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3. PPA Functional Components & Logic

Component	Description	Functional Requirement
Mission Mapping	Categorizing packs by shopper intent (e.g., Immediate Consumption, Pantry Stocking).	Ability to tag SKUs by "Mission" and compare unit prices within that specific mission.
The "Linearity" Check	Ensuring the price-per-unit curve is smooth.	Visual graph showing RSP vs. Size. Any "bulges" in the curve indicate a pricing error or opportunity.
Threshold Alerts	Monitoring psychological price points (e.g., $4.99 vs $5.10).	Alert the user when a recommended price increase breaks a "Power Price Point" ($5, $10, $20).

Component	Description	Functional Requirement
Elasticity Overlay	Mapping how volume shifts when the unit price gap changes.	Integration with the Elasticity Module to predict volume loss if the unit price discount is reduced.
Consumption Profile	Does the item act as a cookie or a diaper (Will the consumer of the product increase consumption when more of the product is available at the point of consumption)	Ability to tag SKU's by consumption type to generate an increase in consumption over time.

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4. Implementation Logic: The "Value Curve"

The system should generate a **Price-Value Curve** that plots all internal SKUs and Competitive SKUs on a single axis (Size on X, Price/Unit on Y).

Acceptable Variance Parameters:

- **Green Zone:** Unit price is 5–15% lower than the smaller size (Healthy).
- **Yellow Zone:** Unit price is 0–5% lower (At risk of "Trade-Down" where consumers buy smaller more frequently).
- **Red Zone:** Unit price is equal or higher than the smaller size (Strategic Failure: The consumer is penalized for buying more).

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5. Cross-Category & Adjacent Item Logic

ahatis must allow for "Adjacent Item" sets. If your product is a premium Greek Yogurt, the system must not only track other Greek Yogurts but also:

- **Adjacent 1:** Standard Yogurts (Value-tier pressure).
- **Adjacent 2:** Protein bars/shakes (Breakfast alternative).

- **Logic:** The system calculates the **"Substitution Pressure"**. If the unit price gap between the CPG brand and its adjacent substitute exceeds a user-defined threshold (e.g., +30%), the system flags a "High Risk of Churn."

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6. User Interface (UI)

- **Heat Map:** A grid showing every SKU's unit price relative to the category average.
- **Scenario Simulator:** A "What-if" tool where a user can change the RSP of a 12oz pack and see how it affects the unit price variance against the 24oz pack and the competitor's 12oz pack simultaneously.

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7. Data Management

- **Data Source:** Initially syndicated data (volume, revenue, ACVs, etc.)
- **Item SEO:** Attributes of an item that make it readily searchable in a traditional digital (google, yahoo, etc.) and AI (Co-Pilot, Gemeni, etc.).