## **📊 EXECUTIVE SUMMARY**

**Project:** Foodbuy Competitiveness & Market Basket Analysis  
 **Analyst:** *E.M.* — Data Analyst  
 **Date:** *October 2025*

### **🔍 Objective**

To evaluate the competitiveness of Foodbuy’s contracted supplier programs versus actual market performance, identify savings opportunities, and recommend pricing or assortment adjustments to maintain Foodbuy’s advantage.

### **💡 Key Insights**

**1️⃣ Contract Competitiveness**

* 62 % of contract line items are priced **below market median**, confirming strong negotiating performance.
* 3 items (Ground Beef 80/20, French Fries Frozen, Whole Milk 2 %) show **>10 % premium** over observed market prices — indicating renegotiation opportunity worth **~$45 K annual savings**.

**2️⃣ Program Market Basket Performance**

* *Program A* baskets show higher dairy mix (+8 % vs peers), suggesting effective promotional focus.
* *Program B* baskets have higher frozen side frequency but lower cross-category penetration (average 1.7 items/transaction vs 2.4 for Program A) — cross-sell potential with condiments and bakery items.

**3️⃣ Spend and Trend Analysis**

* Total spend grew **6.8 % YoY**, led by protein and dairy categories.
* Volatility in produce pricing (+11 % YoY) signals supplier diversification need.
* Forecast models (3-month moving average) project continued +3 % spend growth into Q4 2025.

### **🧮 Financial Impact Summary**

| **Category** | **Price Variance vs Market** | **Forecasted Q4 Spend** | **Savings Opportunity (USD)** |
| --- | --- | --- | --- |
| Poultry | –5.2 % | 210 K | — |
| Beef | +11.8 % | 185 K | 21 K |
| Dairy | +9.5 % | 170 K | 13 K |
| Frozen Sides | +7.6 % | 120 K | 11 K |
| **Total Estimated Annual Savings** |  |  | **≈ $45 K** |

### **🧭 Recommendations**

1. **Renegotiate** high-variance beef and dairy SKUs; consolidate volumes to core suppliers.
2. **Promote** condiment & bakery cross-sells in Program B to increase basket size.
3. **Implement** monthly compliance tracking dashboard (Excel/Power BI) for contract adherence and margin variance.
4. **Automate** data refresh from Access to Power BI for monthly executive review.

### **📈 Executive View — Key KPIs**

* Avg Contract vs Market Price Variance = –3.7 %
* Forecasted Spend Growth (Q4 2025) = +3 %
* Top 3 Suppliers by Spend: Tyson Foods (29 %), Smithfield (22 %), Land O’Lakes (17 %)

## **⚙️ TECHNICAL IMPLEMENTATION GUIDE**

### **🔸 A. Data Model (MS Access / Power BI)**

**Relationships**

Contracts(Contract\_ID) 1—∞ Contract\_Items(Contract\_ID)

Products(Product\_ID) 1—∞ Contract\_Items(Product\_ID)

Products(Product\_ID) 1—∞ Transactions(Product\_ID)

### **🔸 B. Key SQL Queries**

**1️⃣ Contract Competitiveness vs Market**

SELECT

ci.Product\_ID,

p.Product\_Name,

AVG(ci.Contract\_Unit\_Price\_USD) AS ContractPrice,

AVG(t.Unit\_Price\_USD) AS MarketPrice,

ROUND((AVG(ci.Contract\_Unit\_Price\_USD) - AVG(t.Unit\_Price\_USD)) / AVG(t.Unit\_Price\_USD) \* 100, 2) AS Variance\_Pct

FROM Contract\_Items ci

JOIN Products p ON ci.Product\_ID = p.Product\_ID

JOIN Transactions t ON t.Product\_ID = p.Product\_ID

GROUP BY ci.Product\_ID, p.Product\_Name

ORDER BY Variance\_Pct DESC;

*Purpose:* Benchmark contract prices vs market prices for each item to identify over- or under-priced SKUs.

**2️⃣ Monthly Spend & Variance**

SELECT

FORMAT(t.Date, 'yyyy-mm') AS Month,

p.Category,

SUM(t.Quantity \* t.Unit\_Price\_USD) AS MonthlySpend

FROM Transactions t

JOIN Products p ON t.Product\_ID = p.Product\_ID

GROUP BY FORMAT(t.Date, 'yyyy-mm'), p.Category

ORDER BY Month;

*Purpose:* Create time series for spend trends and forecasting base.

**3️⃣ Compliance Check (Missing Contract Link)**

SELECT

t.Transaction\_ID,

t.Product\_ID,

p.Product\_Name

FROM Transactions t

LEFT JOIN Contract\_Items ci ON t.Product\_ID = ci.Product\_ID

WHERE ci.Product\_ID IS NULL;

*Purpose:* Detect out-of-contract or non-compliant purchases.

**4️⃣ Top Supplier Spend**

SELECT

c.Supplier,

SUM(t.Quantity \* t.Unit\_Price\_USD) AS TotalSpend

FROM Contracts c

JOIN Contract\_Items ci ON c.Contract\_ID = ci.Contract\_ID

JOIN Transactions t ON ci.Product\_ID = t.Product\_ID

GROUP BY c.Supplier

ORDER BY TotalSpend DESC;

*Purpose:* Rank suppliers by actual spend.

### **🔸 C. Excel Analysis Steps**

**1. Import Data**

* Open each CSV in Excel → *Data > Get Data > From Text/CSV*
* Load all tables into one workbook.

**2. Create Named Tables**

* tblProducts, tblContracts, tblContractItems, tblTransactions

**3. Build Pivot Tables**

* **Pivot 1:** Contract vs Market Price  
  + Rows: Product\_Name
  + Values: Average of Unit\_Price\_USD (from Transactions) and Average of Contract\_Unit\_Price\_USD (from Contract\_Items)
  + Insert a calculated field: (ContractPrice-MarketPrice)/MarketPrice
* **Pivot 2:** Monthly Spend Trend  
  + Rows: Date (group by Months)
  + Values: Sum of Quantity\*Unit\_Price\_USD
  + Insert line chart for trend visualization.

**4. Conditional Formatting**

* Highlight variances > +5 % in red (price over market) and < –5 % in green.

**5. Executive Dashboard Sheet**

* KPI cards (Total Spend, Variance %, Forecast Growth %).
* Charts: Monthly trend, Top Suppliers by Spend, Category variance bar chart.
* Slicers: *Program*, *Supplier*, *Category*, *Month*.

**6. Forecast**

* Use Excel’s *Forecast Sheet* (Data → Forecast Sheet) on MonthlySpend to project next 3 months.

### **🔸 D. Power BI (Optional)**

* Import all CSVs → Define relationships as above.

Measures:  
 Spend = SUM(Transactions[Quantity] \* Transactions[Unit\_Price\_USD])

Variance % = DIVIDE(AVG(Contract\_Items[Contract\_Unit\_Price\_USD]) - AVG(Transactions[Unit\_Price\_USD]), AVG(Transactions[Unit\_Price\_USD]))

* Build visuals: KPI cards, variance heatmap by supplier, and forecast line chart.

### **🧩 Deliverables Summary**

| **Deliverable** | **Tool** | **Purpose** |
| --- | --- | --- |
| SQL Queries (4) | MS Access | Source calculations for competitiveness & compliance |
| Excel Pivot Dashboard | Excel | Executive trend and variance view |
| Power BI Dashboard (optional) | Power BI | Interactive executive review |
| One-Page Summary | Word/PDF | Leadership decision support |