Executive Summary

Our basket analysis evaluated 170 product pairs across 14,963 transactions from Jan 1, 2014, to Dec 30, 2015. We recommend the following five product pairs based on filtering criteria (support > 0.45% and lift > 1) and ranking by higher confidence within each pair. The product with higher confidence is placed in the promotional bin.

- Small Milk in bin, next to Fish location:
  - Intuitively rare but 9.07x more frequent than expected, ~80% chance to buy small milk for customers who purchased fish. Suggest A/B testing.
- Salad Dressing in bin, next to Other Vegetables location:
  - Common promotional combination for salads-preppers.
- Sauces in bin, next to Chicken location:
  - Predictable combination in recipes; widely used by competitors like H-Mart, Safeway.
- Soda in bin, next to Rolls/Buns location:
  - Rare in grocery stores in reality; but common meal combo. Affordable, popular items; appeals to budget-conscious shoppers. Suggest A/B testing.
- Herbs in bin, next to Pork location:
  - Common pair in recipes, ideal cross-promotion for convenient meal solutions.

Runner Ups (Top 6-10 Highest Confidence)

- Bottled Beer in bin, next to Sausage:
  - Customers buy sausage and beer together for gatherings, but as in Canada it is illegal to sell beer in grocery store—recommend excluding
- Yogurt in bin, next to Large Milk:
  - Both are refrigerated and typically placed nearby, so additional display space isn't necessary.
- Cereals in bin, next to Rolls/Buns:
  - Potential substitutes; placing them together may lead customers to choose only one.
- Cereals in bin, next to Med Milk:
  - Cereal packages are large and unsuitable for bin displays, leading to inefficient use of space.
- Shopping Bags in bin, next to Large Milk:
  - Shoppers can easily buy bags at checkout for carrying milk, so bin placement is unnecessary.

Appendix

		Product Description 1	Product Description 2	Support (Actual)	Support (Expected)	Lift	Confidence (Prod 1=>2)	Confidence (Prod 2=>1)	Highest Confidence
Promotional Pairs	1	small milk	fish	0.74%	0.08%	9.07	8.43%	79.86%	79.86%
	2	other vegetables	salad dressing	0.99%	0.41%	2.44	6.57%	36.72%	36.72%
	3	soda	rolls/buns	3.48%	1.63%	2.13	28.49%	25.99%	28.49%
	4	sauces	chicken	0.71%	0.10%	7.01	23.98%	20.70%	23.98%
	5	herbs	pork	0.80%	0.16%	5.01	21.82%	18.43%	21.82%
Runner Ups	6	sausage	bottled beer	1.10%	0.47%	2.35	12.11%	21.35%	21.35%
	7	yogurt	large milk	1.04%	0.57%	1.83	9.41%	20.16%	20.16%
	8	rolls/buns	cereals	0.48%	0.39%	1.23	3.60%	16.44%	16.44%
	9	med milk	cereals	0.45%	0.20%	2.23	6.52%	15.53%	15.53%
	10	shopping bags	large milk	0.79%	0.30%	2.63	13.50%	15.34%	15.34%

Reference
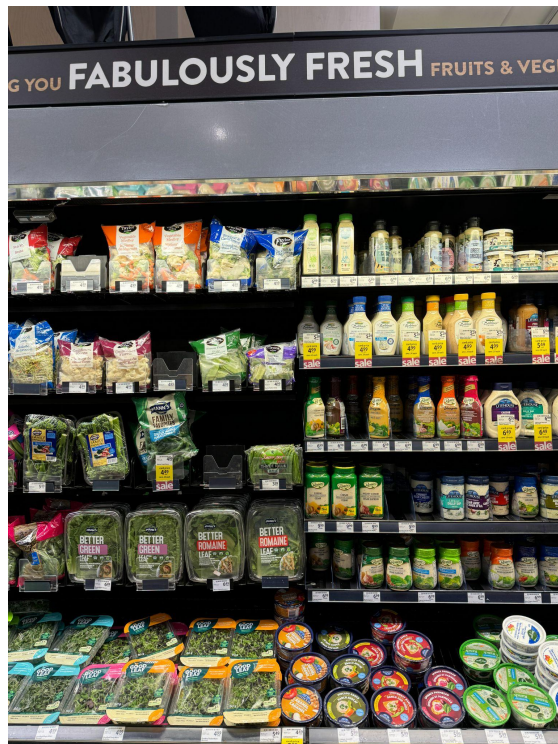
Herbs & sauces placed next to meat (left). Salad dressings placed next to vegetables (right). Photos taken Nov 7, 2024 at Wesbrook Save On Foods.