



Who Ate My Bacon?

Business Case Study

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AGENDA

- Business Case Overview
- In-depth Analysis of Key Elements
 - Sales
 - Sales Cost Margin
 - Gross Profit
 - Key Metrics Overview
- Margin Performance
 - YOY Change % - All Brands
- Performance Deterioration
 - YOY Change % - Within Brands
- Dimensions & Measures
 - Customers & Transactions
 - Incentives
- Other Findings
- Solution & Further Analysis

BUSINESS CASE OVERVIEW

Business Case

- Bacon, a popular item for many of Nature Basket's customers.
- Bacon Sales - Increasing from ~20.1M to ~22.6M year over year
- Bacon Brands - National Brands & two private label tiers, SYS A and SYS B
- National Brands - well known and loved by the customers
- Nature Basket's Private Brands - Offer great quality for an advantageous price for customers and profitability for Nature Basket

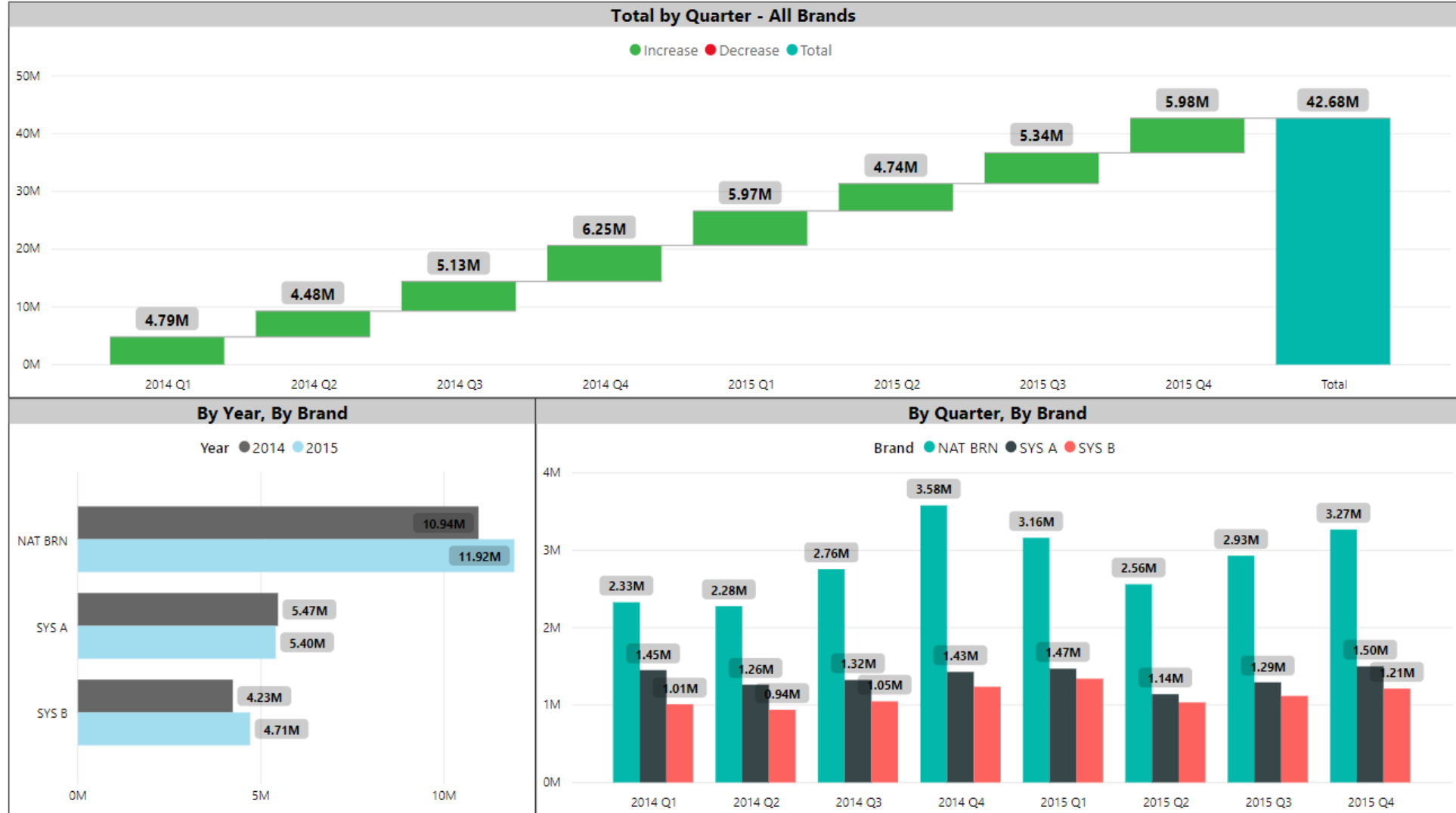
Problem Statement

Although Sales have grown year over year, the margins for the Bacon Category have been shrinking!

SALES

By Year, Quarter and Brand

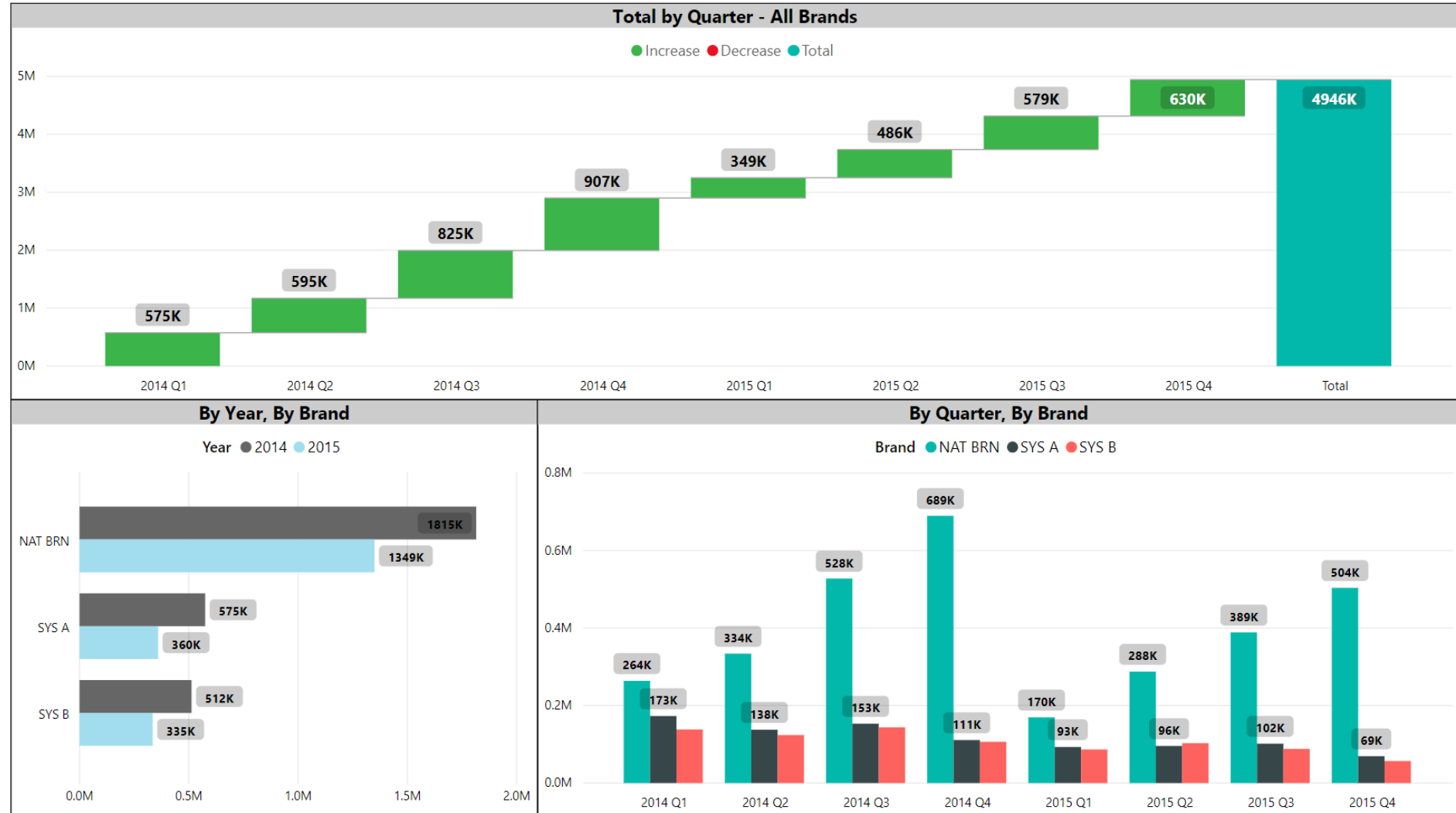
BRND	Year	Quarter	Sum of Sales
NAT BRN	2014	Q1	2328075.337
		Q2	2278712.993
		Q3	2757286.946
		Q4	3579788.584
	2014 Total		10943863.86
	2015	Q1	3161190.275
		Q2	2561141.943
		Q3	2929898.129
		Q4	3269000.231
	2015 Total		11921230.58
NAT BRN Total			22865094.44
SYS A	2014	Q1	1451558.61
		Q2	1263167.09
		Q3	1324035.8
		Q4	1428542.44
	2014 Total		5467303.94
	2015	Q1	1470108.36
		Q2	1140230.29
		Q3	1293859.89
		Q4	1499868.14
	2015 Total		5404066.68
SYS A Total			10871370.62
SYS B	2014	Q1	1009629.78
		Q2	938604.28
		Q3	1047759.63
		Q4	1237103.27
	2014 Total		4233096.96
	2015	Q1	1340423.27
		Q2	1034642.67
		Q3	1118464.89
		Q4	1212835.68
	2015 Total		4706366.51
SYS B Total			8939463.47
Grand Total			42675928.53



SALES COST MARGIN

By Year, Quarter and Brand

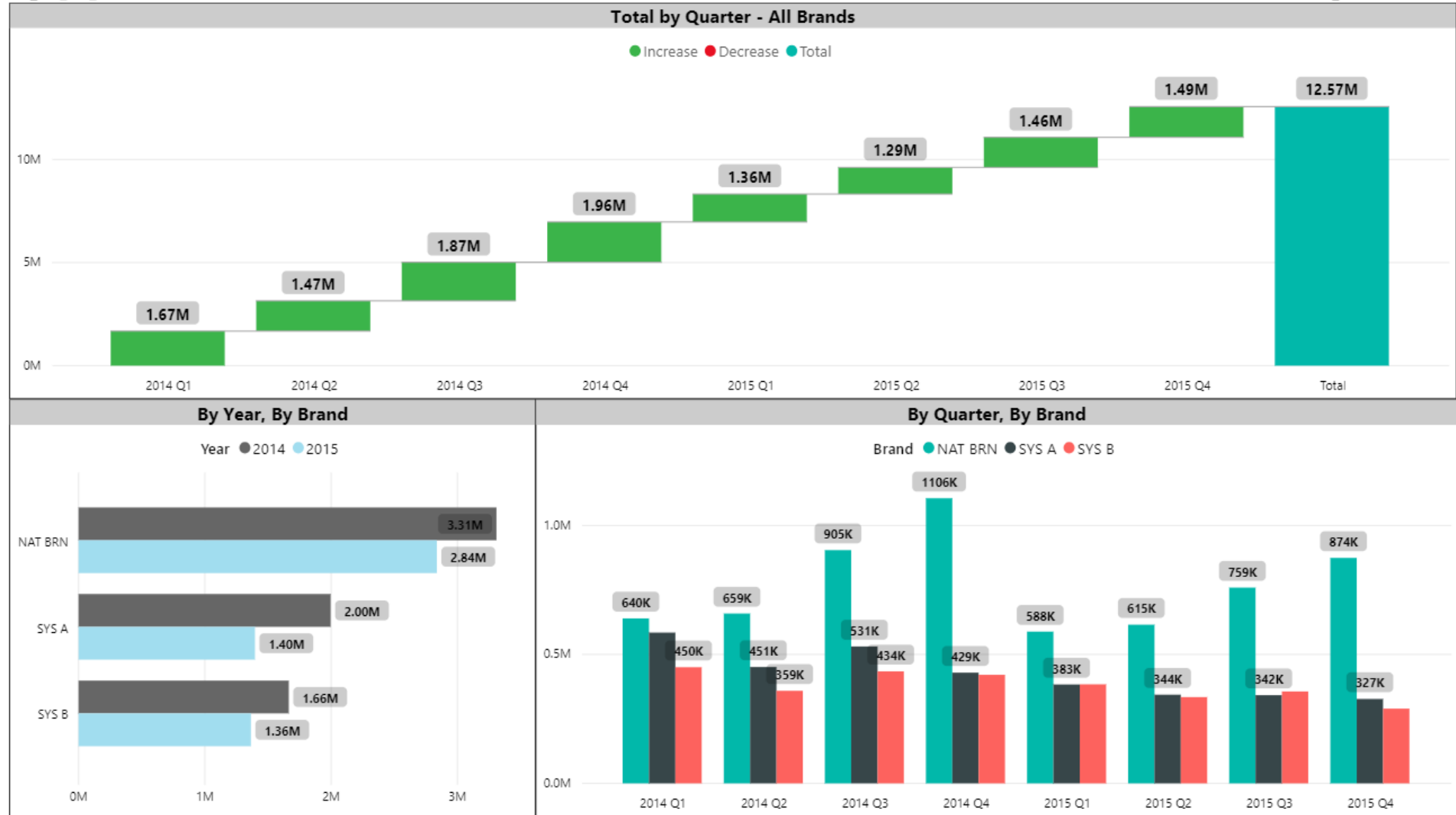
BRND	Year	Quarter	Sum of Sales Cost Margin
NAT BRN	2014	Q1	263695.9432
		Q2	333923.5045
		Q3	527664.3979
		Q4	689493.8879
	2014 Total		1814777.734
	2015	Q1	169548.878
		Q2	287587.3845
		Q3	388697.9
		Q4	503625.9236
	2015 Total		1349460.086
	NAT BRN Total		3164237.82
SYS A	2014	Q1	172954.107
		Q2	137629.003
		Q3	153202.336
		Q4	111002.441
	2014 Total		574787.887
	2015	Q1	93032.582
		Q2	95705.318
		Q3	101584
		Q4	69292.5
	2015 Total		359614.4
	SYS A Total		934402.287
SYS B	2014	Q1	138286.715
		Q2	123807.164
		Q3	143697.534
		Q4	106513.59
	2014 Total		512305.003
	2015	Q1	86696.136
		Q2	102916.94
		Q3	88250.32
		Q4	56806.43
	2015 Total		334669.826
	SYS B Total		846974.829
Grand Total		4945614.936	



GROSS PROFIT

By Year, Quarter and Brand

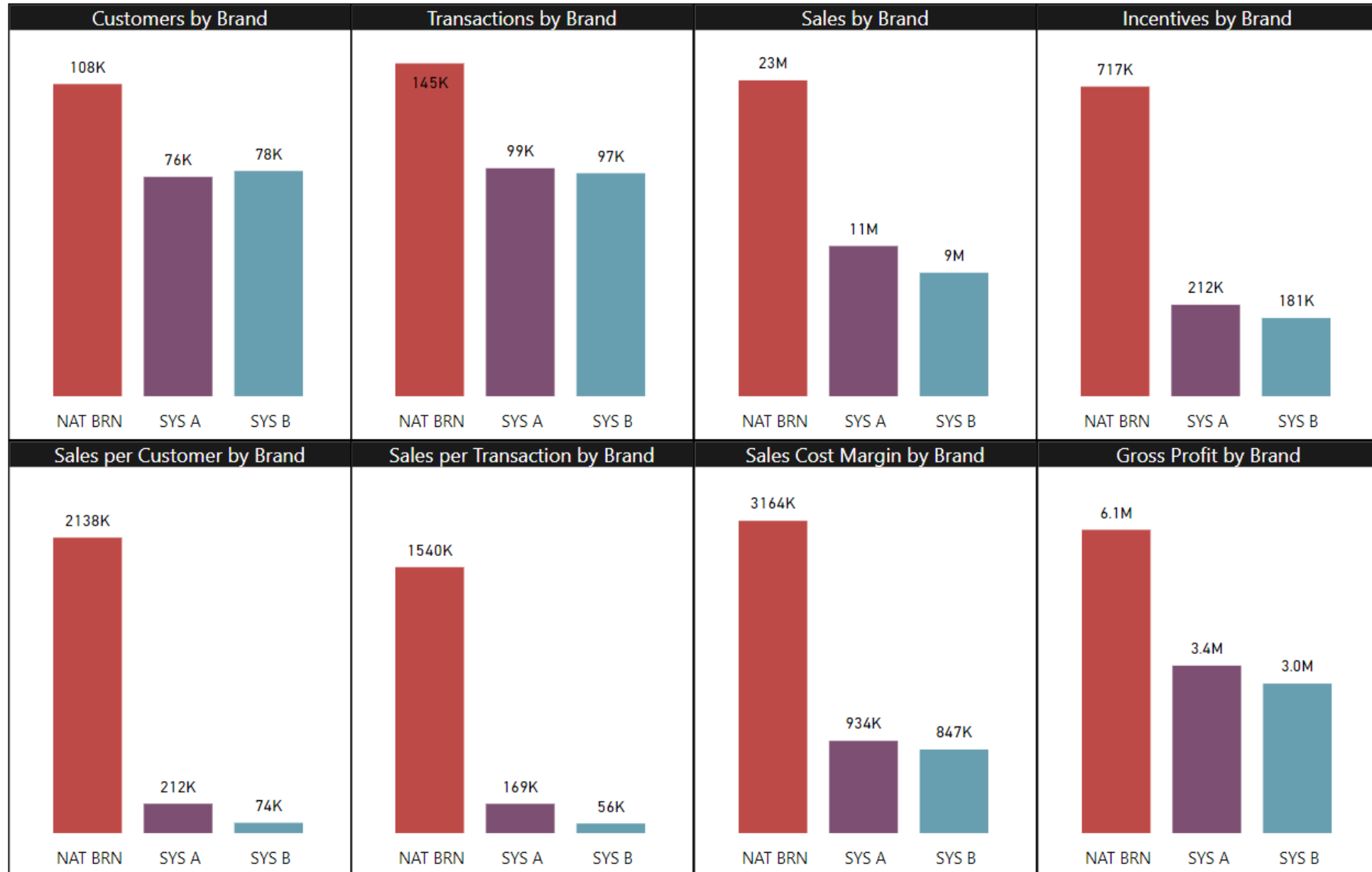
BRND	Year	Quarter	Sum of Gross Profit
NAT BRN	2014	Q1	639859.0092
		Q2	658747.0675
		Q3	904566.9319
		Q4	1105650.931
	2014 Total		3308823.94
	2015	Q1	588364.582
		Q2	615277.8535
		Q3	759233.237
		Q4	874217.5116
	2015 Total		2837093.184
	NAT BRN Total		6145917.124
SYS A	2014	Q1	584693.162
		Q2	451305.841
		Q3	530864.557
		Q4	429184.168
	2014 Total		1996047.728
	2015	Q1	383452.781
		Q2	343909.366
		Q3	342178.35
		Q4	327311.436
	2015 Total		1396851.933
	SYS A Total		3392899.661
SYS B	2014	Q1	450446.087
		Q2	359019.847
		Q3	434494.731
		Q4	420773.277
	2014 Total		1664733.942
	2015	Q1	384054.984
		Q2	334610.461
		Q3	356270.517
		Q4	289713.236
	2015 Total		1364649.198
	SYS B Total		3029383.14
Grand Total		12568199.92	



KEY METRICS OVERVIEW

BRND	Year	Quarter	Sum of Sales	Sum of Sales Cost	Sum of Net Cost	Sum of Gross Profit	Sum of Sales Cost Margin	Sum of Sales per Transaction	Sum of Sales per Customer
SYS A	2014	Q1	1451558.61	1278604.503	866865.448	584693.162	172954.107	14030.07252	17656.00402
		Q2	1263167.09	1125538.087	811861.249	451305.841	137629.003	13532.55019	16997.28811
		Q3	1324035.8	1170833.464	793171.243	530864.557	153202.336	16515.51161	20273.86698
		Q4	1428542.44	1317539.999	999358.272	429184.168	111002.441	20436.27365	25943.21502
	2014 Total		5467303.94	4892516.053	3471256.212	1996047.728	574787.887	64514.40797	80870.37414
	2015	Q1	1470108.36	1377075.778	1086655.579	383452.781	93032.582	28724.27801	35191.60193
		Q2	1140230.29	1044524.972	796320.924	343909.366	95705.318	23528.87398	29275.02803
		Q3	1293859.89	1192275.89	951681.54	342178.35	101584	25323.66912	32208.83569
		Q4	1499868.14	1430575.64	1172556.704	327311.436	69292.5	27303.00232	34721.63656
	2015 Total		5404066.68	5044452.28	4007214.747	1396851.933	359614.4	104879.8234	131397.1022
Grand Total			10871370.62	9936968.333	7478470.959	3392899.661	934402.287	169394.2314	212267.4763
BRND	Year	Quarter	Sum of Sales	Sum of Sales Cost	Sum of Net Cost	Sum of Gross Profit	Sum of Sales Cost Margin	Sum of Sales per Transaction	Sum of Sales per Customer
SYS B	2014	Q1	1009629.78	871343.065	559183.693	450446.087	138286.715	4865.101274	6916.189549
		Q2	938604.28	814797.116	579584.433	359019.847	123807.164	4542.532135	6100.45212
		Q3	1047759.63	904062.096	613264.899	434494.731	143697.534	5069.518077	6302.91249
		Q4	1237103.27	1130589.68	816329.993	420773.277	106513.59	7988.234212	10450.6358
	2014 Total		4233096.96	3720791.957	2568363.018	1664733.942	512305.003	22465.3857	29770.18996
	2015	Q1	1340423.27	1253727.134	956368.286	384054.984	86696.136	9139.598369	12063.82467
		Q2	1034642.67	931725.73	700032.209	334610.461	102916.94	7388.585607	10013.99148
		Q3	1118464.89	1030214.57	762194.373	356270.517	88250.32	8330.637039	11424.28093
		Q4	1212835.68	1156029.25	923122.444	289713.236	56806.43	8186.534093	11147.81482
	2015 Total		4706366.51	4371696.684	3341717.312	1364649.198	334669.826	33045.35511	44649.9119
Grand Total			8939463.47	8092488.641	5910080.33	3029383.14	846974.829	55510.74081	74420.10186
BRND	Year	Quarter	Sum of Sales	Sum of Sales Cost	Sum of Net Cost	Sum of Gross Profit	Sum of Sales Cost Margin	Sum of Sales per Transaction	Sum of Sales per Customer
NAT BRN	2014	Q1	2328075.337	2064379.394	1688216.328	639859.0092	263695.9432	136185.9171	180325.382
		Q2	2278712.993	1944789.489	1619965.926	658747.0675	333923.5045	156272.581	212055.3076
		Q3	2757286.946	2229622.548	1852720.014	904566.9319	527664.3979	180111.7682	238691.9369
		Q4	3579788.584	2890294.696	2474137.653	1105650.931	689493.8879	223613.3361	309383.9866
	2014 Total		10943863.86	9129086.127	7635039.921	3308823.94	1814777.734	696183.6025	940456.6131
	2015	Q1	3161190.275	2991641.397	2572825.693	588364.582	169548.878	213701.7122	295074.5569
		Q2	2561141.943	2273554.559	1945864.09	615277.8535	287587.3845	193677.6666	257888.5042
		Q3	2929898.129	2541200.229	2170664.892	759233.237	388697.9	205168.975	313094.5531
		Q4	3269000.231	2765374.307	2394782.719	874217.5116	503625.9236	230907.0458	331973.0549
	2015 Total		11921230.58	10571770.49	9084137.394	2837093.184	1349460.086	843455.3997	1198030.669
Grand Total			22865094.44	19700856.62	16719177.32	6145917.124	3164237.82	1539639.002	2138487.282

KEY METRICS OVERVIEW



MARGIN PERFORMANCE

Total of All Brands - By Year, Quarter

Match!

		yoy			yoy	yoy		
TOTAL - ALL BRANDS		6.72%			-19.67%	-29.57%		
Year	Quarter	Sum of Sales	Sum of Sales Cost	Sum of Net Cost	Sum of Gross Profit	Sum of Sales Cost Margin	Sum of Sales per Transaction	Sum of Sales per Customer
2014	Q1	4789263.727	4214326.962	3114265.469	1674998.258	574936.7652	155081.0909	204897.5755
	Q2	4480484.363	3885124.692	3011411.608	1469072.755	595359.6715	174347.6634	235153.0479
	Q3	5129082.376	4304518.108	3259156.156	1869926.22	824564.2679	201696.7979	265268.7164
	Q4	6245434.294	5338424.375	4289825.918	1955608.376	907009.9189	252037.844	345777.8374
2014 Total		20644264.76	17742394.14	13674659.15	6969605.61	2901870.624	783163.3962	1051097.177
2015	Q1	5971721.905	5622444.309	4615849.558	1355872.347	349277.596	251565.5886	342329.9835
	Q2	4736014.903	4249805.261	3442217.223	1293797.68	486209.6425	224595.1262	297177.5237
	Q3	5342222.909	4763690.689	3884540.805	1457682.104	578532.22	238823.2812	356727.6697
	Q4	5981704.051	5351979.197	4490461.867	1491242.184	629724.8536	266396.5822	377842.5063
2015 Total		22031663.77	19987919.46	16433069.45	5598594.315	2043744.312	981380.5782	1374077.683
Grand Total		42675928.53	37730313.59	30107728.6	12568199.92	4945614.936	1764543.974	2425174.86

Appendix A - Margin Performance Report Output:

CATEGORY: BACON			
Summary Metrics	2014	2015	YoY Change
Sum of Sales	20,644,265	22,031,664	6.72%
Sum of Sales Cost Margin	2,901,871	2,043,744	-29.57%
Sum of Gross Profit	6,969,606	5,598,594	-19.67%

Appendix B – Key metrics and Calculations

Sales = the amount stated on the invoice (price per case * number of cases sold)

Sales Cost = the cost basis used to determine sales incentives; includes net cost and a minimum required margin set aside above which salespeople start earning incentives. If the price is set at the sales cost level, they do not earn an incentive.

Net Cost = cost of goods plus inbound freight costs

Gross Profit (\$) = Sales reduced by net cost

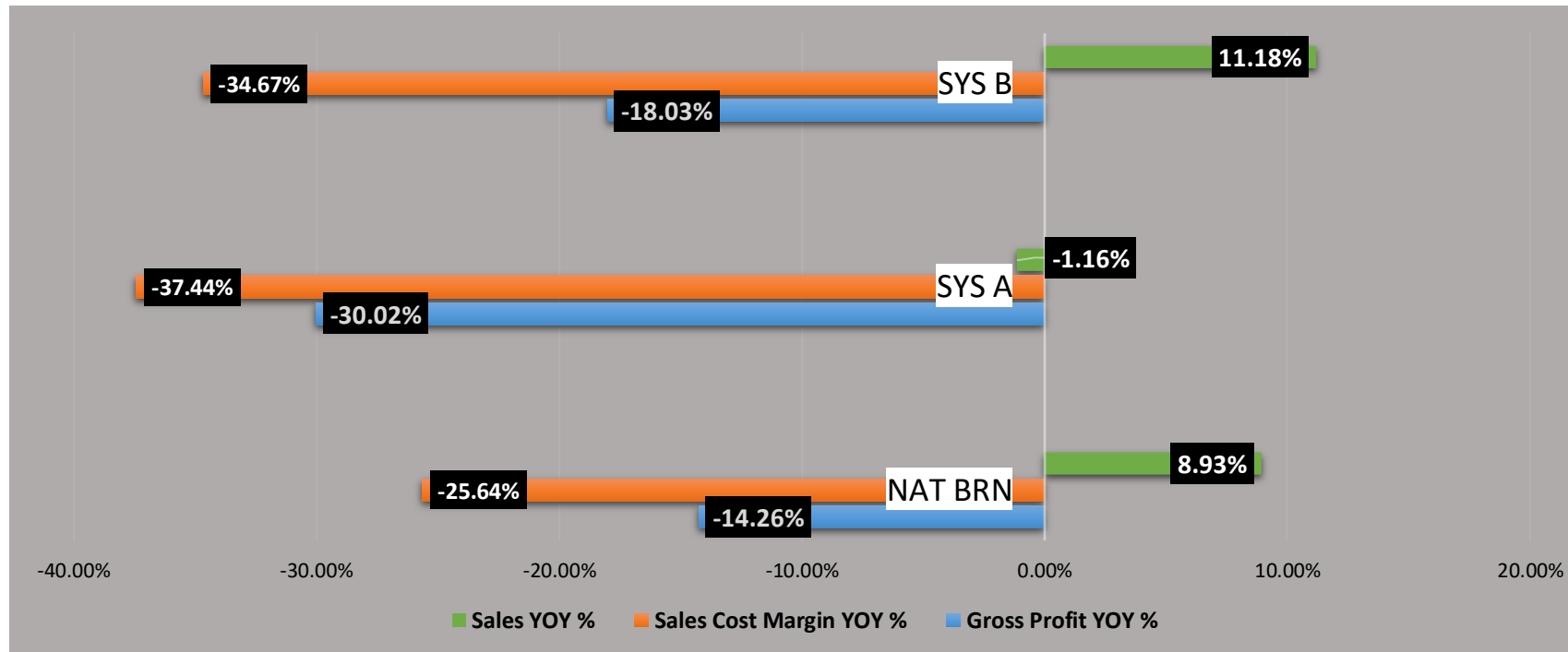
Sales Cost Margin (\$) = Sales reduced by Sales Cost

Gross Profit % = Gross Profit \$s / Sales \$s

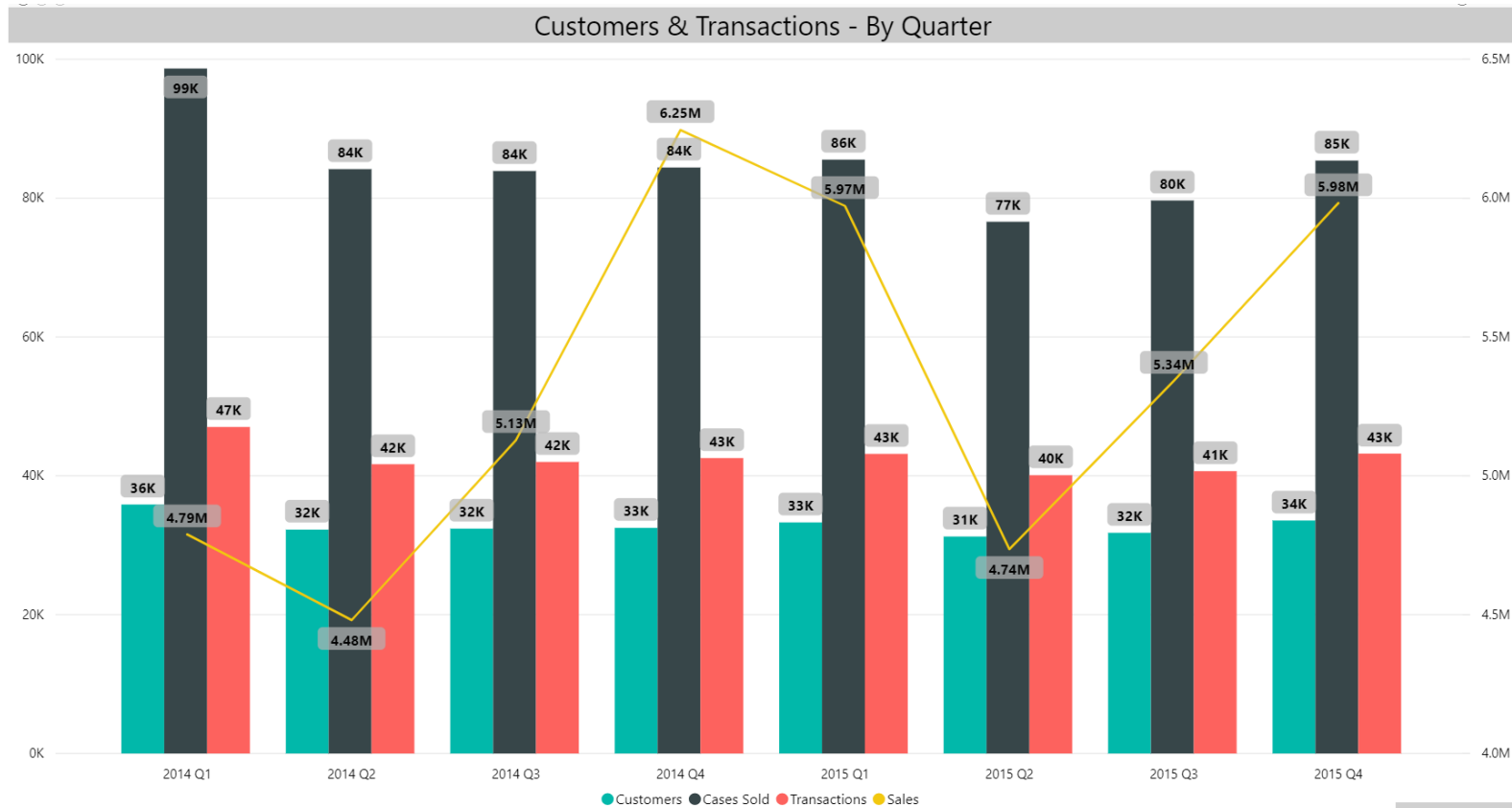
Sales cost margin % = Sales Cost Margin \$s / Sales \$s

PERFORMANCE DETERIORATION

BRND	Year	Sum of Sales	Sum of Sales Cost	Sum of Net Cost	Sum of Gross Profit	Sum of Sales Cost Margin	YOY %		
							Sales	Gross Profit	Sales Cost Margin
NAT BRN	2014	10943863.86	9129086.127	7635039.921	3308823.94	1814777.734	8.93%	-14.26%	-25.64%
	2015	11921230.58	10571770.49	9084137.394	2837093.184	1349460.086			
SYS A	2014	5467303.94	4892516.053	3471256.212	1996047.728	574787.887	-1.16%	-30.02%	-37.44%
	2015	5404066.68	5044452.28	4007214.747	1396851.933	359614.4			
SYS B	2014	4233096.96	3720791.957	2568363.018	1664733.942	512305.003	11.18%	-18.03%	-34.67%
	2015	4706366.51	4371696.684	3341717.312	1364649.198	334669.826			
Grand Total		42675928.53	37730313.59	30107728.6	12568199.92	4945614.936			



CUSTOMERS & TRANSACTIONS

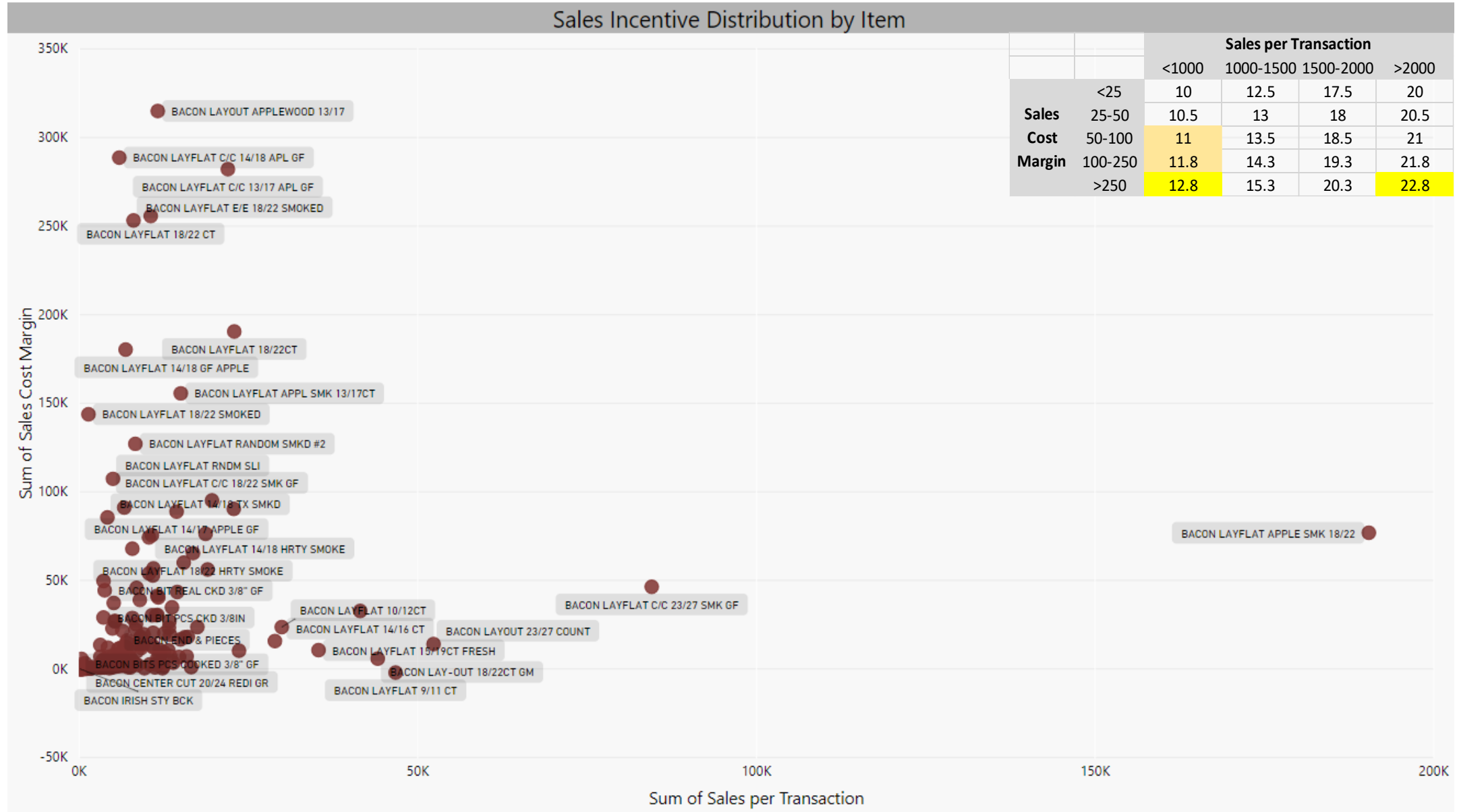


Number of Transactions and Number of Customers are *correlated*.
Sales is also *correlated*.

- Transaction is an entire invoice which may includes sales for other products apart from bacon.

BRND	Year	Quarter	Sum of Sales per Customer	Sum of Sales per Transaction
NAT BRN	2014	Q1	180325.382	136185.9171
		Q2	212055.3076	156272.581
		Q3	238691.9369	180111.7682
		Q4	309383.9866	223613.3361
	2014 Total		940456.6131	696183.6025
	2015	Q1	295074.5569	213701.7122
		Q2	257888.5042	193677.6666
		Q3	313094.5531	205168.975
		Q4	331973.0549	230907.0458
	2015 Total		1198030.669	843455.3997
NAT BRN Total		2138487.282	1539639.002	
SYS A	2014	Q1	17656.00402	14030.07252
		Q2	16997.28811	13532.55019
		Q3	20273.86698	16515.51161
		Q4	25943.21502	20436.27365
	2014 Total		80870.37414	64514.40797
	2015	Q1	35191.60193	28724.27801
		Q2	29275.02803	23528.87398
		Q3	32208.83569	25323.66912
		Q4	34721.63656	27303.00232
	2015 Total		131397.1022	104879.8234
SYS A Total		212267.4763	169394.2314	
SYS B	2014	Q1	6916.189549	4865.101274
		Q2	6100.45212	4542.532135
		Q3	6302.91249	5069.518077
		Q4	10450.6358	7988.234212
	2014 Total		29770.18996	22465.3857
	2015	Q1	12063.82467	9139.598369
		Q2	10013.99148	7388.585607
		Q3	11424.28093	8330.637039
		Q4	11147.81482	8186.534093
	2015 Total		44649.9119	33045.35511
SYS B Total		74420.10186	55510.74081	
Grand Total			2425174.86	1764543.974

INCENTIVES - SCATTER PLOT

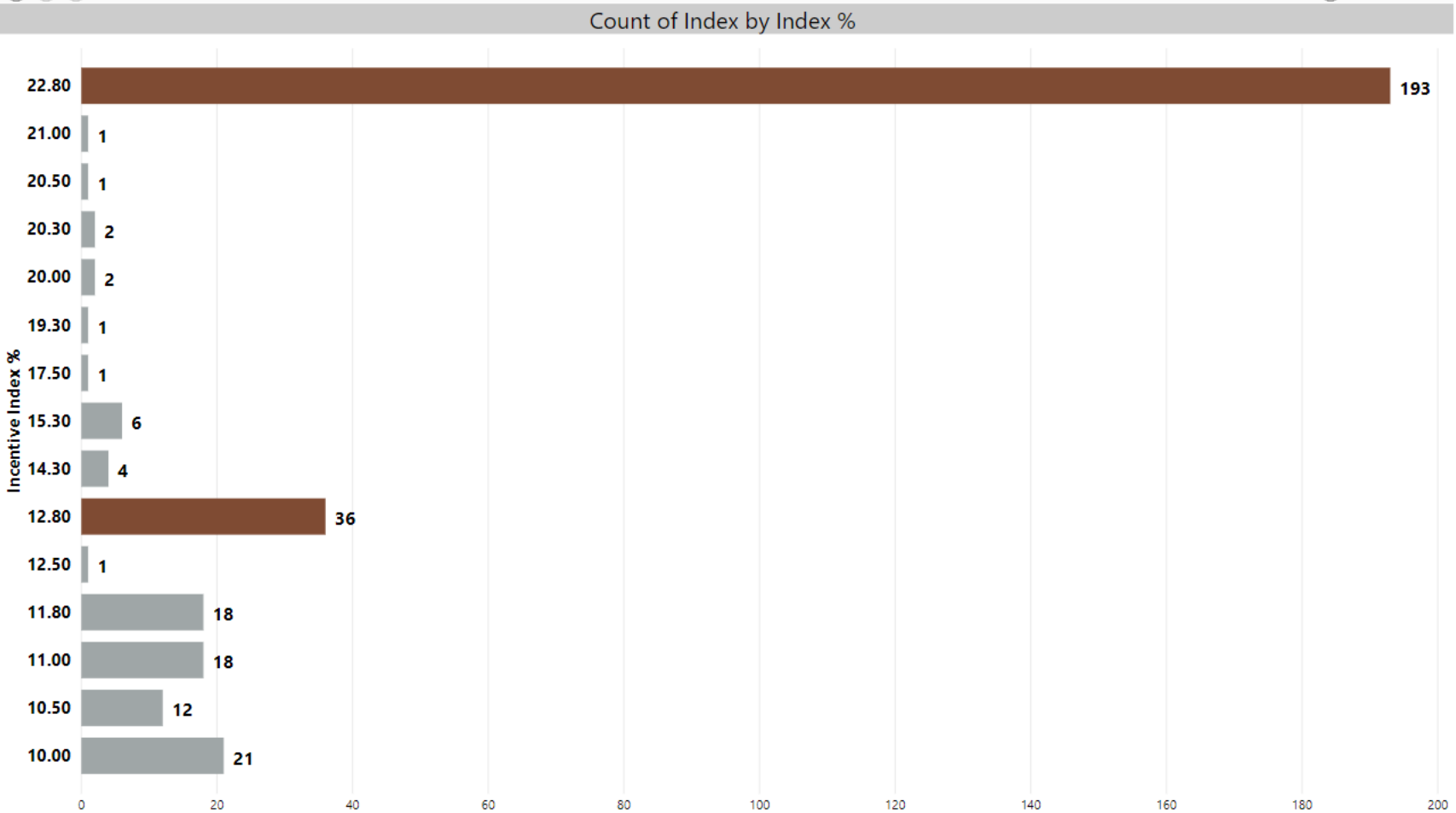


SALES INCENTIVES

By Item, Year and Brand

Year	BRND	Sum of Incentives
2014	NAT BRN	410337.817
	SYS A	129862.6133
	SYS B	104848.2703
2014 Total		645048.70
2015	NAT BRN	306800.0648
	SYS A	81993.13024
	SYS B	76304.72033
2015 Total		465097.92
Grand Total		1110146.616

		Sales per Transaction			
		<1000	1000-1500	1500-2000	>2000
Sales Cost Margin	<25	10	12.5	17.5	20
	25-50	10.5	13	18	20.5
	50-100	11	13.5	18.5	21
	100-250	11.8	14.3	19.3	21.8
	>250	12.8	15.3	20.3	22.8



OTHER FINDINGS

ITM DESC	BRND	Sum of Sales
BACON LAYFLAT 14/18 CT	NAT BRN	187724.1634
	SYS A	489034.28
BACON LAYFLAT 14/18 HRTY SMOKE	SYS A	108181.29
	SYS B	773345.49
BACON LAYFLAT 18/22 CT	SYS A	629784.77
	SYS B	3017773.26
BACON LAYFLAT 18/22 HRTY SMOKE	SYS A	114598.57
	SYS B	605209.64
BACON LAYFLAT 18/22 TX SMKD	SYS A	108971.68
	SYS B	87891.73
BACON LAYFLAT C/C 18/22 SMK GF	NAT BRN	416169.0874
	SYS A	275145.71

- Same Item, Different Brands, Different Sales
- Market Basket Analysis
- Data Discrepancy
- Negative Inventory Transactions

Year	Week	Quarter	ITM DESC	BRND	CASES SOLD	Number of transactions	Number of customers	Pounds Sold
2014	17	Q2	BACON LAYFLAT CC 22/26 TX SMKD	SYS A	-1	1	1	-15
2014	29	Q3	BACON LAYFLAT CC 22/26 TX SMKD	SYS A	-1	1	1	-15
2014	34	Q3	BACON LAYFLAT CC 22/26 TX SMKD	SYS A	-2	2	2	-30
2014	51	Q4	BACON LAYFLAT CC 22/26 TX SMKD	SYS A	-1	1	1	-15
2015	30	Q3	BACON LAYFLAT 22/26 CT TX SMKD	SYS A	-2	2	2	-30
2015	31	Q3	BACON LAYFLT 14/18 GF TX SMKD	SYS A	0	2	2	0
2015	34	Q3	BACON LAYFLAT 22/26 CT TX SMKD	SYS A	-2	1	1	-30
2015	40	Q4	BACON LAYFLT 14/18 GF TX SMKD	SYS A	0	1	1	0
2015	45	Q4	BACON LAYFLT 14/18 GF TX SMKD	SYS A	0	1	1	0
2015	51	Q4	BACON LAYFLAT 22/26 CT TX SMKD	SYS A	-2	3	3	-30
2014	24	Q2	BACON LAYFLAT 18/22 HRTY SMOKE	SYS B	0	1	1	0

SOLUTION & FURTHER ANALYSIS

- **Sales Promotions**
 - New Customers, Higher Revenue
 - Discounted Prices may lower Margins
- **Change in Inventory Accounting**
 - LIFO
 - FIFO
- **Business Process Evaluation**
 - Incentive Index Adjustment
 - Product Mix Adjustment
 - Other adjustments on Red line
- **Ongoing Performance Tracking**
 - KPI's (Key Performance Indicator)
 - Bus Matrix
 - Slice/ Dice /Pivot
 - Drill-through/ Drill-down
 - Dashboards
 - Regression Analysis
 - Hypothesis Testing
- **Pricing Model/ Pricing Analytics**
 - Item-based
 - Brand-based

Thank You!

Any Questions/ Thoughts/ Suggestions?