5 useful sales analysis techniques

Defining the key terms that will be used in this section:

Technique	Definition
Variances	Comparing performance vs. a target
Year on Year %	Analysing performance as a % of last year
Ranking	Ranking best and worst performers
Sell-through	How much has been sold? vs. the amount purchased?
Pareto 80/20	Are 80% of sales coming from 20% of products?

These techniques are focused on sales analysis, although they can be easily applied to other metrics like profit and costs. Also these metrics do not just relate to how a store is performing, they can be used to review the performance of many elements e.g. a department, an individual product line, a range of products etc.

5 useful sales analysis techniques

1. Variances

A variance is the difference between target performance and actual performance. Targets can be a budget, last years actual number or a forecasted number. If the variance is better than target it is favourable, if it is worse, it is adverse.

Variances can be applied to any time period (weekly, monthly, quarterly, yearly) and also to any metric (sales, costs, profit etc).

Example table 1: Fountain Pen sales are £676k better than last year, a favourable variance vs. last year [£2,747,764 - £2,071,888].

Table 1

Department	Category	Sales TY £	Sales LY £	Variance	Year on Year %
Notebooks	Notebox	7,838	8,376	-538	-6.4%
Notebooks Total		7,838	8,376	-538	-6.4%
Paper	A4 plain	5,046,787	4,440,673	606,114	13.6%
	A4 lined	860,024	606,620	253,404	41.8%
Paper Total		5,906,811	5,047,293	859,518	17.0%
Pencils	Standard Pencils	14,045,139	12,112,852	1,932,287	16.0%
	Pencil pens	1,053,640	930,967	122,673	13.2%
Pencils Total		15,098,779	13,043,819	2,054,960	15.8%
Pens	Fountain	2,747,764	2,071,888	675,876	32.6%
	Boxset	6,731	22,068	-15,337	-69.5%
Pens Total		2,754,495	2,093,956	660,540	31.5%
Pens	Ball point	5,290,541	4,852,492	438,049	9.0%
Pens Total		5,290,541	4,852,492	438,049	9.0%
Grand Total		29,058,465	25,045,936	4,012,529	16.0%

Year on year %: e.g. Standard pens 16% = (((£14m-£12m)/£12m) X 100)

2. Year on Year

Standard pencils (Table 1) sales are at £14m this year, £1.9m higher than last year, a favourable variance. A £1.9m improvement from the biggest selling department is good progress, although how does the growth measure up against other smaller departments.

Expressing growth as a % of last year allows relative performance to be measured. Standards pencils are up 16% (£1.9m), although A4 lined paper, which has lower sales, actually grew fastest at 41.8%.

This doesn't mean standard pencils should be ignored, they are the biggest seller, which is improving vs. last year. What is key is that high growing areas like A4 lined paper are highlighted and given the right attention, to grow further and to add more to the bottom line.

2. Year on Year part 2… Like for Like

Sales are up 16% vs. last year (Table 1). But what if you have 10 new stores this year, surely the data is not a true comparison? …. If you have more stores, you are bound to have more sales?

Yes that's right, therefore to get an underlying view of performance a Like for Like (LFL) measure can be used.

Therefore if there were 10 shops last year and this year there are 20 shops, compare the 10 stores this year versus last year to see how your LFL shops are doing. It then lets you focus on your new stores to see if they are hitting the targets required.

3. Ranking

Ranking tables are a way to order metrics by the best or worst performers. Almost any metric can be ranked e.g. total sales, profit, costs, best and worst sellers, year on year %, sales variances etc – see table 2.

Ranking tables should be easy to read and easy to understand. They are also a good way to drive healthy competition, no one wants to be at the bottom of the table !

Imagine if you added some green and red colours… starts to grab attention very quickly, especially if you are at the top or bottom – see table3.

Table 2

Top sales stores		Best selling products - for a specific store		Top profit driving stores vs. budget		Highest payroll spend as % sales	
Sales	**£k**	**Sales**	**£k**	**Profit**	**vs. Budget**	**Payroll**	**Payroll as % of sales**
Store1	£456k	Product3	£45k	Store4	£20k	Store4	15.0%
Store2	£401k	Product1	£40k	Store5	£19k	Store5	14.0%
Store3	£300k	Product5	£39k	Store9	£18k	Store6	13.4%
Store4	£291k	Product7	£38k	Store2	£16k	Store7	12.3%
Store5	£290k	Product9	£27k	Store1	£15k	Store1	12.2%
Store6	£190k	Product6	£20k	Store3	£10k	Store3	11.0%

Table 2: Example ranking tables

Table 3

Colour denotes if ahead or behind budget

Best to worst performing stores

Sales	£k
Store1	£456k
Store2	£401k
Store3	£300k
Store4	£291k
Store5	£290k
Store6	£190k

Highest payroll spend as % sales

Payroll	Payroll as % of sales
Store4	15.0%
Store5	14.0%
Store6	13.4%
Store7	12.3%
Store1	12.2%
Store3	11.0%

4. Sell-through

This is often used for assessing how well seasonal and promotional stock is selling. It compares the amount of stock purchased of a "product" (maybe for a specific promotion) versus how much is sold.

If 10,000 units of Christmas Paper were purchased and only 5,000 units were sold, there is a sell-through of 50%.

Companies will often set targets of how much they want to sell-through e.g. by the last week of December they may expect a 90% sell-through on Christmas Paper, if not, companies may discount stock to clear it, before new season stock comes in and this current stock becomes obsolete.

5. Pareto: The 80-20 rule

Pareto is a simple way of looking at the largest contributors to performance. In the example in table 4, 84% the of sales are coming from only 30% of the product lines (top 3 categories). What this shows is that a small proportion of products are providing the bulk of the sales.

Why is this important? It allows companies to focus on what is driving performance.

This analysis should prompt further questions like what are the other 70% of product lines doing if they only contribute 16% of the sales? Is it right we spend all this effort and cost maintaining them?

This technique is also useful when analysing cost and profit drivers.

Table 4: Pareto

| Category | Sales £ | | | No of Products | | |
	Sales TY £	% Sales Participation	Cumulative % Participation	No Products	% Products Participation	Cumative % Participation
Standard Pencils	14,045,139	48%	48%	12	5%	5%
Ball point	5,290,541	18%	67%	13	6%	11%
A4 plain	5,046,787	17%	84%	45	19%	30%
Fountain	2,747,764	9%	93%	52	22%	52%
Pencil pens	1,053,640	4%	97%	55	23%	75%
A4 lined	860,024	3%	100%	12	5%	80%
Notebook	7,838	0%	100%	34	14%	95%
Boxset	6,731	0%	100%	12	5%	100%
	29,058,465	100%		235	100%	

% sales participation = sales this year/total sales
% products participation = product this year/total products