

1a. Sales: Fundamental analysis techniques

The Finance
Analyst

1a. Contents Page: Sales fundamental analysis techniques

The topics covered in this section include:

- A variety of fundamental sales analysis techniques:
 - Variances
 - Year on year %
 - Higher or lower versus the average
 - Like for like
 - Weighted year on year performance
 - Ranking
 - Participation
 - Comparisons
 - Sell-through
 - Pareto
 - Rate of sale

We will also see how these techniques can be applied to other areas other than sales.

- Always remember the context

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

Variances	Comparing performance vs. a baseline	Participation	Performance as a % share of total performance
Year on Year %	Analysing performance as a % of last year	Comparisons	Using participation to draw out comparisons
Higher or lower versus the average	Comparing performance vs. average performance	Sell-through	How much has been sold? vs. the amount purchased?
Like for Like	Comparing performance year on year with the stores that existed last year – i.e. exclude new stores	Pareto 80/20	Are 80% of sales coming from 20% of products?
Weighted year on year performance	What contribution is each store adding to the overall year on year performance.	Rate of Sale	How fast are your products selling?
Ranking	Ranking best and worst performers		

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.

Like for Like

Sales are up 16% vs. last year (Table 2). 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.

If there were 10 shops last year and this year there are 20 shops, just doing a year on year comparison would probably show an increase. This increase year on year is not necessarily because departmental sales are growing, it may be because there are more shops. Therefore LFL only compares LFL stores year on year i.e. it compares the 10 shops last year with the same 10 shops this year.

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.

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 !

Weighted year on year

Year on year sales are up 16% (table 2). As each department is a different size, it is not always clear without analysis how much each department is contributing to the overall 16% increase.

This can be done by weighting, for each department take the cash £ variance year on year and divide it by the total sales last year. [e.g. standard pencils £1,932,287/ £25,045,936 = 7.7% growth].

Weighting therefore shows that Standard Pencils, which is the biggest department is driving 7.7% of the 16% growth. Not only is it our largest department, hence important, it is also driving 48% of the growth [7.7% / 16%] so we should therefore protect it.

Table 2

Department	Category	Sales TY £	Sales LY £	Variance	Year on Year %	Weighted Year on Year
Notebooks	Notebox	7,838	8,376	-538	-6.4%	0.0%
Notebooks Total		7,838	8,376	-538	-6.4%	0.0%
Paper	A4 plain	5,046,787	4,440,673	606,114	13.6%	2.4%
	A4 lined	860,024	606,620	253,404	41.8%	1.0%
Paper Total		5,906,811	5,047,293	859,518	17.0%	3.4%
Pencils	Standard Pencils	14,045,139	12,112,852	1,932,287	16.0%	7.7%
	Pencil pens	1,053,640	930,967	122,673	13.2%	0.5%
Pencils Total		15,098,779	13,043,819	2,054,960	15.8%	8.2%
Pens	Fountain	2,747,764	2,071,888	675,876	32.6%	2.7%
	Boxset	6,731	22,068	-15,337	-69.5%	-0.1%
Pens Total		2,754,495	2,093,956	660,540	31.5%	2.6%
Pens	Ball point	5,290,541	4,852,492	438,049	9.0%	1.7%
Pens Total		5,290,541	4,852,492	438,049	9.0%	1.7%
Grand Total		29,058,465	25,045,936	4,012,529	16.0%	16.0%

1a. Sales fundamental analysis techniques

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.

Rate of Sale (ROS)

In table 5 standard pencils are the best seller at a total sales level. **Although if this product is in all 200 stores, how should it be compared to a product that is only in 100 stores?**

In table 5 Fountain pens are the company's 4th best seller. Using ROS it shows that fountain pens contribute £2,642 of sales per store per week, whereas standard pencils only contribute £1,350.

As Fountain pens are only in 20 shops, an obvious question could be - what if we increased this product to be in all 200 stores versus just 20, would it drive more sales?

ROS analysis is therefore useful in reviewing new lines sales that are not always in all stores initially.

Table 4: Pareto

Category	Sales £		No of Products			
	Sales TY £	% Sales Participation	Cumulative % Participation	No Products	% Products Participation	Cumulative % 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%
Notebox	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

Table 5

Category	Sales TY £ 52WKS	No of shops	ROS per store per
Standard Pencils	14,045,139	200	1,350
Ball point	5,290,541	200	509
A4 plain	5,046,787	190	511
Fountain	2,747,764	20	2,642
Pencil pens	1,053,640	200	101
A4 lined	860,024	15	1,103
Notebox	7,838	20	8
Boxset	6,731	67	2

*Rate of sale = Sales / Number of shops that product is in / no of weeks on sale

*Rate of sale can be in sales £ or units

Slow Sellers report: using the ROS technique, an exception report can be created that highlights the company's slowest sellers. Further review will be needed to understand what is happening.