Using Sales Curves to Estimate Sales

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A sales curve is a numeric representation of seasonality and traffic patterns. Expressed in either weeks or months, the calculation is the percentage of that unit to the total. The sum of all points on a sales curve should total 100%.

Using a monthly curve. If sales for May are 1,200 units, and sales for the year are 12,000: May is worth 10%.

May Units = 1,200   Expected Annual Units = 12,000   May = 1,200/12,000 = .1 or 10%

Working backwards. If May is worth 10% of the year, and 1,000 units sold in May, expect to sell 10,000 units on an annual basis.

May = 10% of year   May = 1,000 / .1   Expected Annual Units = 10,000

Typically, this process begins with a curve, to determine monthly or weekly sales units.

Feb= .08	May= .07	Aug= .12	Nov= .13	Expected Annual Units = 10,000
Mar = .07	June= .09	Sep= .05	Dec= .14	
Apr = .06	July = .1	Oct= .05	Jan= .04	

Multiply each month's percentage by Expected Annual Units, to determine a sales plan by month.

Feb= 800	May= 700	Aug= 1,200	Nov= 1,300
Mar= 700	June= 900	Sep= 500	Dec = 1,400
Apr= 600	July = 1,000	Oct= 500	Jan= 400

What is paramount is the understanding of how each month relates to the other. Some months are larger than others are because they contain the "peaks" in customer traffic patterns. For instance, August, November and December are all larger than the other months because customers shop more in August for Back to School, and at the Holidays.

Sometimes, when Buyers determine how inventory needs, they calculate coverage in weeks or months. If a Buyer wants 3 months of coverage, and today is April 1st, the coverage needs are 2,200 units (600 + 700 + 900).

A weekly sales curve is more precise. Using the same point in time, and 12 weeks of coverage:

Week 10 =	.015	Week 14 = .012	Week 19 = .016
Week 11 =	.014	Week 15 = .013	Week 20 = .022
Week 12 =	.016	Week 16 = .014	Week 21 = .025
Week 13 =	.015	Week 17 = .014	Week 22 = .027
		Week 18 = .017	
April = .06		May = .07	June = .09

The calculation is the addition of Weeks 10 to 21 (12 weeks), or .193. Then Multiply .193 by 10,000 (the expected annual units). On April 1st, 12 weeks of coverage would be 930 units.

Notice the variation in percentages between weeks. Just as some months are larger, some weeks are bigger than other weeks. In May, Week 18 is the largest in the month; Mother's Day falls in the last week of May. In Week 19, sales fall because customer traffic drops after the holiday. The same logic is applied in June, for Father's Day.

Increased traffic affects the sales curve. Apply the same logic in adjusting a sales curve for a special promotion. Different factors (pricing, weather, calendar shifts, etc.) affect the curve. The variation between weeks or months is generally termed "lift," if numbers go up; and "decline," if numbers go down. If Week 1 is .01, and Week 2 is .015, the lift is expected to be +50%.