

IMPROVING PERFORMANCE WITH:

# STORE ANALYSIS

A STEP-BY-STEP GUIDE TO CREATING A STORE ANALYSIS

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## OBJECTIVES

The primary purpose of a store analysis is to identify the stores which are making the largest contribution to total sales. When the highest contributing stores are identified, an analyst can study the characteristics of those stores, including SKU assortment, demographics, promotions, min/max on hand, and make recommendations on how other stores can be improved to enhance performance. An important objective of a store analysis is to grade stores by performance into major categories to save time and focus out of stock and forecasting on the highest contributing stores in future analysis.

## KEY CONSIDERATIONS

When comparing store sales, it is best to see dollars sold because it provides a more accurate cross-store comparison than units sold. Consider for a moment two stores; one store sells five \$20 items and the other store sells five \$10 items. If the store analysis was unit-based, these two stores would show equal performance. However, if the analysis is dollars-based, the \$100 store will have a higher performance ranking.

### **Additional considerations for creating the most accurate store analysis include:**

- Store sales analysis can be skewed by merchandise assortment. If there is more than one plan-o-gram in effect with significantly different SKU assortments, the store analysis will be most useful when conducted for one plan-o-gram at a time.
- Store sales analysis is best conducted using dollars not units. If your retailer provides only unit sales, it will be necessary to estimate the dollar sales for each store using the units sold multiplied times the item retail price.
- Because the analysis requires two comparable periods, you will need to consider any price changes which may have occurred during the analysis period. If, for example, a 5% price increase occurred during the period being analyzed, you will need to decide if you want to see the effect of the price increase or if you want to factor it out. In some cases, you will want to factor out the price increase so the store performance is analyzed based on a constant selling price. In that case, you would determine the date of the price change and adjust the sales by the amount of the change so that sales remain at a constant selling price. On the other hand, you may be interested in analyzing if the price change caused an increase or decrease in store performance. If so, you will need to conduct the analysis two times: first with the increase factored out, and then a second time with the price change in effect. This will enable you to compare the percentage change in sales to see if the price change had a positive or negative impact.

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- Because the analysis requires two comparable periods, you will need to consider any price changes which may have occurred during the analysis period. If, for example, a 5% price increase occurred during the period being analyzed, you will need to decide if you want to see the effect of the price increase or if you want to factor it out. In some cases, you will want to factor out the price increase so the store performance is analyzed based on a constant selling price. In that case, you would determine the date of the price change and adjust the sales by the amount of the change so that sales remain at a constant selling price. On the other hand, you may be interested in analyzing if the price change caused an increase or decrease in store performance. If so, you will need to conduct the analysis two times: first with the increase factored out, and then a second time with the price change in effect. This will enable you to compare the percentage change in sales to see if the price change had a positive or negative impact.

## STEP-BY-STEP CONSTRUCTION

**1) COMPARE STORE SALES:** The first step in a store analysis is to construct a simple report that compares store sales for two comparable periods. This period can be YTD with a comparable period for the prior year or if the data is available, two full year periods can be pulled. The longer the period used for the analysis, the more accurate the data analysis.

Note that stores should be sorted in descending order for the most current period. If the retailer that you are analyzing has buying offices, regions or other geographic groupings, include those columns because they will be useful for additional analysis later. To have an accurate two-period comparative analysis, any stores with no sales in one or both periods should be eliminated.. See **Figure 1**.

**FIGURE 1**

| STATE | CITY            | STORE # | 2008         | 2009         |
|-------|-----------------|---------|--------------|--------------|
| CA    | HOLLYWOOD       | 6,616   | \$93,283.80  | \$122,618.74 |
| FL    | HOLLYWOOD       | 6,310   | \$118,534.87 | \$121,586.31 |
| CA    | LOS ANGELES     | 6,611   | \$89,035.36  | \$109,954.33 |
| FL    | JUPITER         | 274     | \$93,036.73  | \$99,323.34  |
| CA    | NORTH HOLLYWOOD | 6,613   | \$87,458.88  | \$97,812.32  |
| HI    | HONOLULU        | 1,701   | \$84,989.38  | \$95,877.18  |
| FL    | BOYNTON BEACH   | 224     | \$93,170.98  | \$93,914.70  |
| CA    | SAN DIEGO       | 674     | \$83,998.93  | \$92,189.73  |
| FL    | MIRAMAR         | 6,353   | \$92,925.06  | \$91,264.30  |
| FL    | LAKE PARK       | 220     | \$82,792.02  | \$90,367.64  |

**2) CALCULATE CUMULATIVE SALES:** The second step is to add a column to the right of the table to calculate cumulative sales going down the column for the most current period. See **Figure 2**.

**FIGURE 2**

| STATE | CITY            | STORE # | 2008         | 2009         | 2009 CUM SALES |
|-------|-----------------|---------|--------------|--------------|----------------|
| CA    | HOLLYWOOD       | 6,616   | \$93,283.80  | \$122,618.74 | \$122,618.74   |
| FL    | HOLLYWOOD       | 6,310   | \$118,534.87 | \$121,586.31 | \$244,205.05   |
| CA    | LOS ANGELES     | 6,611   | \$89,035.36  | \$109,954.33 | \$354,159.38   |
| FL    | JUPITER         | 274     | \$93,036.73  | \$99,323.34  | \$453,482.72   |
| CA    | NORTH HOLLYWOOD | 6,613   | \$87,458.88  | \$97,812.32  | \$551,295.04   |
| HI    | HONOLULU        | 1,701   | \$84,989.38  | \$95,877.18  | \$647,172.22   |
| FL    | BOYNTON BEACH   | 224     | \$93,170.98  | \$93,914.70  | \$741,086.92   |
| CA    | SAN DIEGO       | 674     | \$83,998.93  | \$92,189.73  | \$833,276.65   |
| FL    | MIRAMAR         | 6,353   | \$92,925.06  | \$91,264.30  | \$924,540.95   |
| FL    | LAKE PARK       | 220     | \$82,792.02  | \$90,367.64  | \$1,014,908.59 |

**3) CALCULATE PERCENTAGE OF STORE COUNT:** Next add a column to calculate the cumulative percentage of store count. To perform this calculation, you will need to calculate the total number of stores in your worksheet. Keep in mind total stores in your worksheet may be different than the total number of stores that the retailer operates because you may have eliminated stores with no sales in the previous step. Each row will represent one store divided by the total store count and then sum the values going down the column. This will enable you to easily scan down the column to find important groups of stores, 50% of stores, or 80% of stores; and then use the cumulative sales column to determine, for example, that 50% of total stores contributed 72% of totalsales. These relationships will be important later in the analysis when grouping stores. See **Figure 3**.

**FIGURE 3**

| STATE | CITY            | STORE # | 2008         | 2009         | 2009 CUM SALES | CUM % STORE COUNT |
|-------|-----------------|---------|--------------|--------------|----------------|-------------------|
| CA    | HOLLYWOOD       | 6,616   | \$93,283.80  | \$122,618.74 | \$122,618.74   | 0.05%             |
| FL    | HOLLYWOOD       | 6,310   | \$118,534.87 | \$121,586.31 | \$244,205.05   | 0.10%             |
| CA    | LOS ANGELES     | 6,611   | \$89,035.36  | \$109,954.33 | \$354,159.38   | 0.15%             |
| FL    | JUPITER         | 274     | \$93,036.73  | \$99,323.34  | \$453,482.72   | 0.20%             |
| CA    | NORTH HOLLYWOOD | 6,613   | \$87,458.88  | \$97,812.32  | \$551,295.04   | 0.25%             |
| HI    | HONOLULU        | 1,701   | \$84,989.38  | \$95,877.18  | \$647,172.22   | 0.30%             |
| FL    | BOYNTON BEACH   | 224     | \$93,170.98  | \$93,914.70  | \$741,086.92   | 0.35%             |
| CA    | SAN DIEGO       | 674     | \$83,998.93  | \$92,189.73  | \$833,276.65   | 0.40%             |
| FL    | MIRAMAR         | 6,353   | \$92,925.06  | \$91,264.30  | \$924,540.95   | 0.45%             |
| FL    | LAKE PARK       | 220     | \$82,792.02  | \$90,367.64  | \$1,014,908.59 | 0.50%             |

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**4) CALCULATE PERCENTAGE CONTRIBUTION EACH STORE MAKES TO TTL SALES:**

Next add a column to calculate the percentage contribution each store is making to total sales. To perform this calculation, you will need to sum the total sales and then use the store sales on each row to determine the stores contribution to the total. This column will be used later to identify if any store is making a more significant contribution to its peers. See **Figure 4**.

**FIGURE 4**

| STATE | CITY            | STORE # | 2008         | 2009         | 2009 CUM SALES | CUM % STORE COUNT | % CONTRIBUTION |
|-------|-----------------|---------|--------------|--------------|----------------|-------------------|----------------|
| CA    | HOLLYWOOD       | 6,616   | \$93,283.80  | \$122,618.74 | \$122,618.74   | 0.05%             | 0.25%          |
| FL    | HOLLYWOOD       | 6,310   | \$118,534.87 | \$121,586.31 | \$244,205.05   | 0.10%             | 0.25%          |
| CA    | LOS ANGELES     | 6,611   | \$89,035.36  | \$109,954.33 | \$354,159.38   | 0.15%             | 0.23%          |
| FL    | JUPITER         | 274     | \$93,036.73  | \$99,323.34  | \$453,482.72   | 0.20%             | 0.20%          |
| CA    | NORTH HOLLYWOOD | 6,613   | \$87,458.88  | \$97,812.32  | \$551,295.04   | 0.25%             | 0.20%          |
| HI    | HONOLULU        | 1,701   | \$84,989.38  | \$95,877.18  | \$647,172.22   | 0.30%             | 0.20%          |
| FL    | BOYNTON BEACH   | 224     | \$93,170.98  | \$93,914.70  | \$741,086.92   | 0.35%             | 0.19%          |
| CA    | SAN DIEGO       | 674     | \$83,998.93  | \$92,189.73  | \$833,276.65   | 0.40%             | 0.19%          |
| FL    | MIRAMAR         | 6,353   | \$92,925.06  | \$91,264.30  | \$924,540.95   | 0.45%             | 0.19%          |
| FL    | LAKE PARK       | 220     | \$82,792.02  | \$90,367.64  | \$1,014,908.59 | 0.50%             | 0.19%          |

**5) CALCULATE CUMULATIVE PERCENTAGE OF SALES:** Next add a column to calculate the cumulative percentage of sales. This column is based on the cumulative dollar sales column, but is expressed as a percentage. This allows you to easily scan down the column to find important groups of stores that are contributing significant amounts to sales. See **Figure 5**.

**FIGURE 5**

| STATE | CITY            | STORE # | 2008         | 2009         | 2009 CUM SALES | CUM % STORE COUNT | % CONTRIBUTION | CUM % SALES |
|-------|-----------------|---------|--------------|--------------|----------------|-------------------|----------------|-------------|
| CA    | HOLLYWOOD       | 6,616   | \$93,283.80  | \$122,618.74 | \$122,618.74   | 0.05%             | 0.25%          | 0.25%       |
| FL    | HOLLYWOOD       | 6,310   | \$118,534.87 | \$121,586.31 | \$244,205.05   | 0.10%             | 0.25%          | 0.50%       |
| CA    | LOS ANGELES     | 6,611   | \$89,035.36  | \$109,954.33 | \$354,159.38   | 0.15%             | 0.23%          | 0.73%       |
| FL    | JUPITER         | 274     | \$93,036.73  | \$99,323.34  | \$453,482.72   | 0.20%             | 0.20%          | 0.93%       |
| CA    | NORTH HOLLYWOOD | 6,613   | \$87,458.88  | \$97,812.32  | \$551,295.04   | 0.25%             | 0.20%          | 1.13%       |
| HI    | HONOLULU        | 1,701   | \$84,989.38  | \$95,877.18  | \$647,172.22   | 0.30%             | 0.20%          | 1.33%       |
| FL    | BOYNTON BEACH   | 224     | \$93,170.98  | \$93,914.70  | \$741,086.92   | 0.35%             | 0.19%          | 1.52%       |
| CA    | SAN DIEGO       | 674     | \$83,998.93  | \$92,189.73  | \$833,276.65   | 0.40%             | 0.19%          | 1.71%       |
| FL    | MIRAMAR         | 6,353   | \$92,925.06  | \$91,264.30  | \$924,540.95   | 0.45%             | 0.19%          | 1.90%       |
| FL    | LAKE PARK       | 220     | \$82,792.02  | \$90,367.64  | \$1,014,908.59 | 0.50%             | 0.19%          | 2.08%       |

**6) CALCULATE PERCENTAGE CHANGE IN SALES:** Calculate a percentage change in sales from last year compared to this year. To calculate the percentage change in sales, use the following formula:

$$\frac{\text{THIS YEAR SALES} - \text{LAST YEAR SALES}}{\text{LAST YEAR SALES}}$$

An important part of analyzing store performance is not only the store's contribution to total sales, but also the store's rate of growth or decline. See **Figure 6**.

**FIGURE 6**

| STATE | CITY            | STORE # | 2008         | 2009         | 2009 CUM SALES | CUM % STORE COUNT | % CONTRIBUTION | CUM % SALES | % CHANGE IN SALES |
|-------|-----------------|---------|--------------|--------------|----------------|-------------------|----------------|-------------|-------------------|
| CA    | HOLLYWOOD       | 6,616   | \$93,283.80  | \$122,618.74 | \$122,618.74   | 0.05%             | 0.25%          | 0.25%       | 31.45%            |
| FL    | HOLLYWOOD       | 6,310   | \$118,534.87 | \$121,586.31 | \$244,205.05   | 0.10%             | 0.25%          | 0.50%       | 2.57%             |
| CA    | LOS ANGELES     | 6,611   | \$89,035.36  | \$109,954.33 | \$354,159.38   | 0.15%             | 0.23%          | 0.73%       | 23.50%            |
| FL    | JUPITER         | 274     | \$93,036.73  | \$99,323.34  | \$453,482.72   | 0.20%             | 0.20%          | 0.93%       | 6.76%             |
| CA    | NORTH HOLLYWOOD | 6,613   | \$87,458.88  | \$97,812.32  | \$551,295.04   | 0.25%             | 0.20%          | 1.13%       | 11.84%            |
| HI    | HONOLULU        | 1,701   | \$84,989.38  | \$95,877.18  | \$647,172.22   | 0.30%             | 0.20%          | 1.33%       | 12.81%            |
| FL    | BOYNTON BEACH   | 224     | \$93,170.98  | \$93,914.70  | \$741,086.92   | 0.35%             | 0.19%          | 1.52%       | 0.80%             |
| CA    | SAN DIEGO       | 674     | \$83,998.93  | \$92,189.73  | \$833,276.65   | 0.40%             | 0.19%          | 1.71%       | 9.75%             |
| FL    | MIRAMAR         | 6,353   | \$92,925.06  | \$91,264.30  | \$924,540.95   | 0.45%             | 0.19%          | 1.90%       | -1.79%            |
| FL    | LAKE PARK       | 220     | \$82,792.02  | \$90,367.64  | \$1,014,908.59 | 0.50%             | 0.19%          | 2.08%       | 9.15%             |

**7) RANK STORES BASED ON PERCENTAGE CHANGE IN SALES:** Add a column to rank stores based on the percentage change in sales. This can easily be done by sorting the stores by % Chg in Sales column in descending order. Next, simply enter one into the new rank column and fill down to the bottom of the sheet. When this is completed, re-sort the data so it is again sorted by the most current period dollar sales in descending order. See **Figure 7**.

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**FIGURE 7**

| STATE | CITY            | STORE # | 2008         | 2009         | 2009<br>CUM SALES | CUM %<br>STORE COUNT | %<br>CONTRIBUTION | CUM %<br>SALES | % CHANGE<br>IN SALES | % CHANGE<br>SALES RANK |
|-------|-----------------|---------|--------------|--------------|-------------------|----------------------|-------------------|----------------|----------------------|------------------------|
| CA    | HOLLYWOOD       | 6,616   | \$93,283.80  | \$122,618.74 | \$122,618.74      | 0.05%                | 0.25%             | 0.25%          | 31.45%               | 118                    |
| FL    | HOLLYWOOD       | 6,310   | \$118,534.87 | \$121,586.31 | \$244,205.05      | 0.10%                | 0.25%             | 0.50%          | 2.57%                | 1419                   |
| CA    | LOS ANGELES     | 6,611   | \$89,035.36  | \$109,954.33 | \$354,159.38      | 0.15%                | 0.23%             | 0.73%          | 23.50%               | 275                    |
| FL    | JUPITER         | 274     | \$93,036.73  | \$99,323.34  | \$453,482.72      | 0.20%                | 0.20%             | 0.93%          | 6.76%                | 1138                   |
| CA    | NORTH HOLLYWOOD | 6,613   | \$87,458.88  | \$97,812.32  | \$551,295.04      | 0.25%                | 0.20%             | 1.13%          | 11.84%               | 791                    |
| HI    | HONOLULU        | 1,701   | \$84,989.38  | \$95,877.18  | \$647,172.22      | 0.30%                | 0.20%             | 1.33%          | 12.81%               | 732                    |
| FL    | BOYNTON BEACH   | 224     | \$93,170.98  | \$93,914.70  | \$741,086.92      | 0.35%                | 0.19%             | 1.52%          | 0.80%                | 1518                   |
| CA    | SAN DIEGO       | 674     | \$83,998.93  | \$92,189.73  | \$833,276.65      | 0.40%                | 0.19%             | 1.71%          | 9.75%                | 931                    |
| FL    | MIRAMAR         | 6,353   | \$92,925.06  | \$91,264.30  | \$924,540.95      | 0.45%                | 0.19%             | 1.90%          | -1.79%               | 1650                   |
| FL    | LAKE PARK       | 220     | \$82,792.02  | \$90,367.64  | \$1,014,908.59    | 0.50%                | 0.19%             | 2.08%          | 9.15%                | 981                    |

**8) RANK SALES BY MOST CURRENT PERIOD:** Add a column for sales rank by the most current period. As the stores are already sorted by descending sales, simply add one in the first row and fill down to the bottom of the sheet to rank sales by the most current period. See **Figure 8**.

**FIGURE 8**

| STATE | CITY            | STORE # | 2008         | 2009         | 2009<br>CUM SALES | CUM %<br>STORE COUNT | %<br>CONTRIBUTION | CUM %<br>SALES | % CHANGE<br>IN SALES | % CHANGE<br>SALES RANK | 2009<br>SALES RANK |
|-------|-----------------|---------|--------------|--------------|-------------------|----------------------|-------------------|----------------|----------------------|------------------------|--------------------|
| CA    | HOLLYWOOD       | 6,616   | \$93,283.80  | \$122,618.74 | \$122,618.74      | 0.05%                | 0.25%             | 0.25%          | 31.45%               | 118                    | 1                  |
| FL    | HOLLYWOOD       | 6,310   | \$118,534.87 | \$121,586.31 | \$244,205.05      | 0.10%                | 0.25%             | 0.50%          | 2.57%                | 1419                   | 2                  |
| CA    | LOS ANGELES     | 6,611   | \$89,035.36  | \$109,954.33 | \$354,159.38      | 0.15%                | 0.23%             | 0.73%          | 23.50%               | 275                    | 3                  |
| FL    | JUPITER         | 274     | \$93,036.73  | \$99,323.34  | \$453,482.72      | 0.20%                | 0.20%             | 0.93%          | 6.76%                | 1138                   | 4                  |
| CA    | NORTH HOLLYWOOD | 6,613   | \$87,458.88  | \$97,812.32  | \$551,295.04      | 0.25%                | 0.20%             | 1.13%          | 11.84%               | 791                    | 5                  |
| HI    | HONOLULU        | 1,701   | \$84,989.38  | \$95,877.18  | \$647,172.22      | 0.30%                | 0.20%             | 1.33%          | 12.81%               | 732                    | 6                  |
| FL    | BOYNTON BEACH   | 224     | \$93,170.98  | \$93,914.70  | \$741,086.92      | 0.35%                | 0.19%             | 1.52%          | 0.80%                | 1518                   | 7                  |
| CA    | SAN DIEGO       | 674     | \$83,998.93  | \$92,189.73  | \$833,276.65      | 0.40%                | 0.19%             | 1.71%          | 9.75%                | 931                    | 8                  |
| FL    | MIRAMAR         | 6,353   | \$92,925.06  | \$91,264.30  | \$924,540.95      | 0.45%                | 0.19%             | 1.90%          | -1.79%               | 1650                   | 9                  |
| FL    | LAKE PARK       | 220     | \$82,792.02  | \$90,367.64  | \$1,014,908.59    | 0.50%                | 0.19%             | 2.08%          | 9.15%                | 981                    | 10                 |

**9) ASSIGN A CATEGORY TO EACH STORE:** It is now time to assign a category to each store. We recommend using categories A through D for store grouping. The letter assigned to each store is done based on the store's sales quartile. To determine the quartile, you simply divide the total stores in the worksheet by four, which will tell you how many stores are in each quartile. Then assign A to the first quartile of stores, B to the second quartile, etc. See **Figure 9**.

**FIGURE 7**

| STATE | CITY            | STORE # | 2008         | 2009         | 2009<br>CUM SALES | CUM %<br>STORE COUNT | %<br>CONTRIBUTION | CUM %<br>SALES | % CHANGE<br>IN SALES | % CHANGE<br>SALES RANK |
|-------|-----------------|---------|--------------|--------------|-------------------|----------------------|-------------------|----------------|----------------------|------------------------|
| CA    | HOLLYWOOD       | 6,616   | \$93,283.80  | \$122,618.74 | \$122,618.74      | 0.05%                | 0.25%             | 0.25%          | 31.45%               | 118                    |
| FL    | HOLLYWOOD       | 6,310   | \$118,534.87 | \$121,586.31 | \$244,205.05      | 0.10%                | 0.25%             | 0.50%          | 2.57%                | 1419                   |
| CA    | LOS ANGELES     | 6,611   | \$89,035.36  | \$109,954.33 | \$354,159.38      | 0.15%                | 0.23%             | 0.73%          | 23.50%               | 275                    |
| FL    | JUPITER         | 274     | \$93,036.73  | \$99,323.34  | \$453,482.72      | 0.20%                | 0.20%             | 0.93%          | 6.76%                | 1138                   |
| CA    | NORTH HOLLYWOOD | 6,613   | \$87,458.88  | \$97,812.32  | \$551,295.04      | 0.25%                | 0.20%             | 1.13%          | 11.84%               | 791                    |
| HI    | HONOLULU        | 1,701   | \$84,989.38  | \$95,877.18  | \$647,172.22      | 0.30%                | 0.20%             | 1.33%          | 12.81%               | 732                    |
| FL    | BOYNTON BEACH   | 224     | \$93,170.98  | \$93,914.70  | \$741,086.92      | 0.35%                | 0.19%             | 1.52%          | 0.80%                | 1518                   |
| CA    | SAN DIEGO       | 674     | \$83,998.93  | \$92,189.73  | \$833,276.65      | 0.40%                | 0.19%             | 1.71%          | 9.75%                | 931                    |
| FL    | MIRAMAR         | 6,353   | \$92,925.06  | \$91,264.30  | \$924,540.95      | 0.45%                | 0.19%             | 1.90%          | -1.79%               | 1650                   |
| FL    | LAKE PARK       | 220     | \$82,792.02  | \$90,367.64  | \$1,014,908.59    | 0.50%                | 0.19%             | 2.08%          | 9.15%                | 981                    |

**8) RANK SALES BY MOST CURRENT PERIOD:** Add a column for sales rank by the most current period. As the stores are already sorted by descending sales, simply add one in the first row and fill down to the bottom of the sheet to rank sales by the most current period. See **Figure 8**.

**FIGURE 8**

| STATE | CITY            | STORE # | 2008         | 2009         | 2009<br>CUM SALES | CUM %<br>STORE COUNT | %<br>CONTRIBUTION | CUM %<br>SALES | % CHANGE<br>IN SALES | % CHANGE<br>SALES RANK | 2009<br>SALES RANK |
|-------|-----------------|---------|--------------|--------------|-------------------|----------------------|-------------------|----------------|----------------------|------------------------|--------------------|
| CA    | HOLLYWOOD       | 6,616   | \$93,283.80  | \$122,618.74 | \$122,618.74      | 0.05%                | 0.25%             | 0.25%          | 31.45%               | 118                    | 1                  |
| FL    | HOLLYWOOD       | 6,310   | \$118,534.87 | \$121,586.31 | \$244,205.05      | 0.10%                | 0.25%             | 0.50%          | 2.57%                | 1419                   | 2                  |
| CA    | LOS ANGELES     | 6,611   | \$89,035.36  | \$109,954.33 | \$354,159.38      | 0.15%                | 0.23%             | 0.73%          | 23.50%               | 275                    | 3                  |
| FL    | JUPITER         | 274     | \$93,036.73  | \$99,323.34  | \$453,482.72      | 0.20%                | 0.20%             | 0.93%          | 6.76%                | 1138                   | 4                  |
| CA    | NORTH HOLLYWOOD | 6,613   | \$87,458.88  | \$97,812.32  | \$551,295.04      | 0.25%                | 0.20%             | 1.13%          | 11.84%               | 791                    | 5                  |
| HI    | HONOLULU        | 1,701   | \$84,989.38  | \$95,877.18  | \$647,172.22      | 0.30%                | 0.20%             | 1.33%          | 12.81%               | 732                    | 6                  |
| FL    | BOYNTON BEACH   | 224     | \$93,170.98  | \$93,914.70  | \$741,086.92      | 0.35%                | 0.19%             | 1.52%          | 0.80%                | 1518                   | 7                  |
| CA    | SAN DIEGO       | 674     | \$83,998.93  | \$92,189.73  | \$833,276.65      | 0.40%                | 0.19%             | 1.71%          | 9.75%                | 931                    | 8                  |
| FL    | MIRAMAR         | 6,353   | \$92,925.06  | \$91,264.30  | \$924,540.95      | 0.45%                | 0.19%             | 1.90%          | -1.79%               | 1650                   | 9                  |
| FL    | LAKE PARK       | 220     | \$82,792.02  | \$90,367.64  | \$1,014,908.59    | 0.50%                | 0.19%             | 2.08%          | 9.15%                | 981                    | 10                 |

**9) ASSIGN A CATEGORY TO EACH STORE:** It is now time to assign a category to each store. We recommend using categories A through D for store grouping. The letter assigned to each store is done based on the store's sales quartile. To determine the quartile, you simply divide the total stores in the worksheet by four, which will tell you how many stores are in each quartile. Then assign A to the first quartile of stores, B to the second quartile, etc. See **Figure 9**.

IMPROVING PERFORMANCE WITH:

# STORE ANALYSIS

A STEP-BY-STEP GUIDE TO CREATING A STORE ANALYSIS

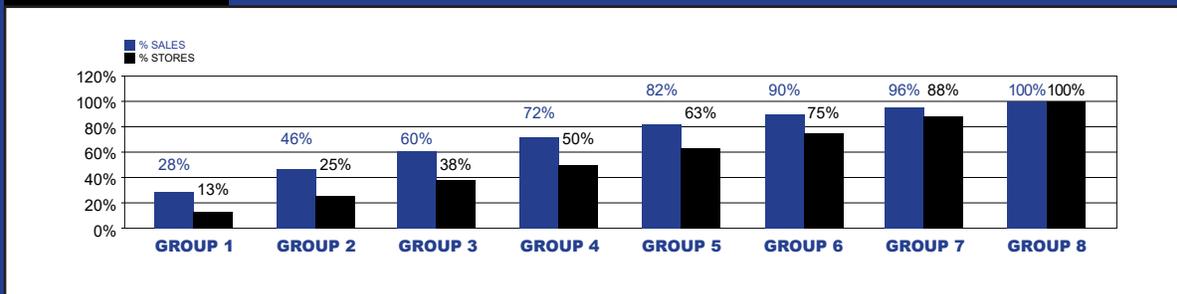


**FIGURE 9**

| STATE | CITY        | STORE # | 2008         | 2009         | 2009           |           | %     | CUM % | % CHANGE | % CHANGE | 2009  |          |
|-------|-------------|---------|--------------|--------------|----------------|-----------|-------|-------|----------|----------|-------|----------|
|       |             |         |              |              | CUM SALES      | STORE CNT |       |       |          |          | SALES | IN SALES |
| CA    | HOLLYWOOD   | 6,616   | \$93,283.80  | \$122,618.74 | \$122,618.74   | 0.05%     | 0.25% | 0.25% | 31.45%   | 118      | 1     | A        |
| FL    | HOLLYWOOD   | 6,310   | \$118,534.87 | \$121,586.31 | \$244,205.05   | 0.10%     | 0.25% | 0.50% | 2.57%    | 1419     | 2     | A        |
| CA    | LOS ANGELES | 6,611   | \$89,035.36  | \$109,954.33 | \$354,159.38   | 0.15%     | 0.23% | 0.73% | 23.50%   | 275      | 3     | A        |
| FL    | JUPITER     | 274     | \$93,036.73  | \$99,323.34  | \$453,482.72   | 0.20%     | 0.20% | 0.93% | 6.76%    | 1138     | 4     | A        |
| CA    | N HOLLYWOOD | 6,613   | \$87,458.88  | \$97,812.32  | \$551,295.04   | 0.25%     | 0.20% | 1.13% | 11.84%   | 791      | 5     | A        |
| HI    | HONOLULU    | 1,701   | \$84,989.38  | \$95,877.18  | \$647,172.22   | 0.30%     | 0.20% | 1.33% | 12.81%   | 732      | 6     | A        |
| FL    | BOYNTON BCH | 224     | \$93,170.98  | \$93,914.70  | \$741,086.92   | 0.35%     | 0.19% | 1.52% | 0.80%    | 1518     | 7     | A        |
| CA    | SAN DIEGO   | 674     | \$83,998.93  | \$92,189.73  | \$833,276.65   | 0.40%     | 0.19% | 1.71% | 9.75%    | 931      | 8     | A        |
| FL    | MIRAMAR     | 6,353   | \$92,925.06  | \$91,264.30  | \$924,540.95   | 0.45%     | 0.19% | 1.90% | -1.79%   | 1650     | 9     | A        |
| FL    | LAKE PARK   | 220     | \$82,792.02  | \$90,367.64  | \$1,014,908.59 | 0.50%     | 0.19% | 2.08% | 9.15%    | 981      | 10    | A        |

**10) BREAK STORES INTO SMALLER GROUPS:** To best analyze the stores which are making the largest contribution, we recommend categorizing stores into smaller groups than the A through D categories used earlier. Therefore, the next step is to categorize stores into eight groups so that each group is one-half a quartile. To do this, divide the total number of stores in the worksheet into eight equal groups. For each group, calculate the percentage of sales for the group and the % of stores for the group. Charting the results of the table will provide a simple visual method for analyzing the group contribution. See **Figure 10**.

**FIGURE 10**



**TIP:**

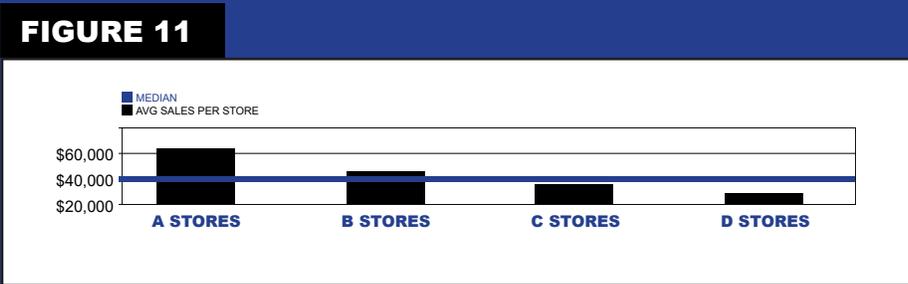
“An analysis of your buyer’s stores is a valuable tool to help vendors better understand and improve store performance. By following the guidelines provided by Accelerated Analytics®, we were able to quickly and easily create a store analysis that gave us the critical insight we needed to make recommendations to enhance results.” - Analyst from Consumer Products Company

In **Figure 10**, we can see that groups 1 to 5 account for 82% of total sales, but are only 63% of total stores. In the chart, each group is a cumulative total of the sales and stores so the reader does not need to add the group together; it has already been done for them. While this is not quite as dramatic as Pareto's Principle, it does indicate that including stores from groups 6 to 8 provides a diminishing return for analysis purposes. Keep in mind an important objective of the store analysis is to reduce the store count to the "vital few and the trivial many." This will enable us to reduce the amount of data that needs to be analyzed when conducting the SKU/store level forecasting and out of stock analysis. If you added group 6, an additional 8% of sales would be added, but 12% more stores would need to be analyzed. As a general rule, you should choose a cutoff where 75% of sales can be analyzed. In our example, that translates into 1071 stores out of a total of 1984. The exact cutoff point can be found by referring to the cumulative % sales column in the data table. Mark these stores using an additional column so they can be referenced later in the out of stock and forecast analysis.

**11) CALCULATE AVERAGE SALES PER STORE:** The next method of summarizing the data is to calculate the average sales per store for each of the A through D groups. To do this, use the average function in Excel for the store groups in the data table based on the store rank column. Charts are most useful when there is a reference point for the user; in this case the best reference point is the median of all store sales. Calculate the median using the excel function and then plot onto the chart. See **Figure 11**.

The Excel formulas for calculating the median and average in Excel are:

`=median(range1:range2)`                      `=average(range1:range2)`



**12) CREATE EXECUTIVE SUMMARY:** Now it is time to pull the analysis together into a one page executive summary that can be easily presented to management and/or your buyer. The first two tables summarize the top and bottom stores by comparable sales sorted by descending dollar sales for the current period. Because the data table used for analysis is sorted in descending order, these two tables are simply the first ten stores and the bottom ten stores. The table to the right summarizes the distribution of stores by showing the highest and lowest stores, as well as the median and average. It is important to show both the median and the average as very large or small stores (outliers) will often skew the average. See **Figure 12**.

**FIGURE 12**

**EXECUTIVE SUMMARY**

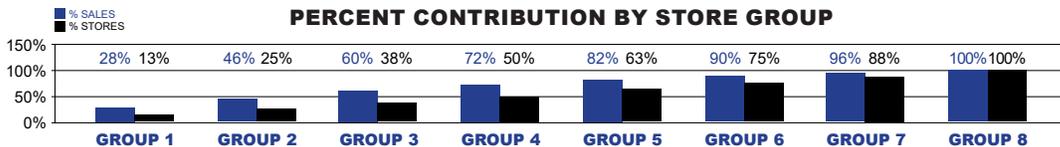
**TOP 10 STORES**

| STATE | CITY         | STORE # | 2008     | 2009     |
|-------|--------------|---------|----------|----------|
| CA    | HOLLYWOOD    | 6,616   | \$93.20  | \$122.60 |
| FL    | HOLLYWOOD    | 6,310   | \$118.80 | \$121.50 |
| CA    | LOS ANGELES  | 6,611   | \$89.10  | \$109.90 |
| FL    | JUPITER      | 274     | \$93.10  | \$99.30  |
| CA    | N. HOLLYWOOD | 6,613   | \$87.50  | \$97.80  |
| HI    | HONOLULU     | 1,701   | \$84.90  | \$95.80  |
| FL    | BOYNTON BCH  | 224     | \$93.70  | \$93.90  |
| CA    | SAN DIEGO    | 674     | \$83.90  | \$92.20  |
| FL    | MIRAMAR      | 6,353   | \$92.90  | \$91.60  |
| FL    | LAKE PARK    | 220     | \$82.70  | \$90.40  |

**BOTTOM 10 STORES**

| STATE | CITY       | STORE # | 2008       | 2009   |
|-------|------------|---------|------------|--------|
| KY    | PADUCAH    | 2,314   | \$6.30     | \$4.10 |
| NE    | GRAND      | ISL     | \$3,208.00 | \$4.80 |
| IL    | NORMAL     | 6,987   | \$3.70     | \$3.90 |
| MN    | WILLMAR    | 2,842   | \$3.90     | \$3.80 |
| CO    | STERLING   | 1,545   | \$3.80     | \$3.70 |
| CA    | CONCORD    | 1,386   | \$7.70     | \$3.70 |
| MO    | KIRKSVILLE | 3,036   | \$3.40     | \$3.70 |
| CA    | PETALUMA   | 1,382   | \$9.50     | \$3.50 |
| MS    | WAVELAND   | 2,918   | \$3.10     | \$3.40 |
| NC    | WILSON     | 3,611   | \$3.00     | \$2.70 |

| STORE   | 2008     | 2009     |
|---------|----------|----------|
| Highest | \$118.50 | \$122.60 |
| Median  | \$19.20  | \$20.10  |
| Average | \$22.30  | \$24.50  |
| Lowest  | \$0.85   | \$2.70   |



**ADDITIONAL ANALYSIS**

Buyers often have detailed information about store demographics which can be used for further analysis. As a starting point, you could request as much detail as possible about the top ten and bottom ten stores. Compare and contrast the demographics for these two stores and see if there are any obvious differences. For example, buyer median income, average education, or ethnicity may be very different between the stores. If you identify significant differences between the stores, you may want to explore this further with your buyer and even give some thought as to how the SKU assortment can be optimized in those stores based on the dominant traits.

Buyers often have a store list with categories defined A, B, C, D based on sales performance. However, the buyer's categories are typically assigned based on the total sales for a given store. This may result in a different performance ranking than the analysis on your specific SKU's. Because plan-o-gram decisions are made based on the retailer's store categories, you may find that an A store for your items is considered a B or C store based on totalsales. Request a list of store categories from your buyer and compare to the categories from your analysis. If there are variances, we recommend you meet with your buyer and discuss adjustments to the plan-o-gram based on store performance for your SKU's.

## NEXT STEPS

This analysis is one in a series of articles that provides step-by-step guidelines to creating reports and analyses that can help you better understand and improve SKU and store performance. To download additional articles in this series, visit [www.acceleratedanalytics.com](http://www.acceleratedanalytics.com). The series includes the following articles:

- **SKU Forecast**
- **SKU Analysis**
- **Out of Stock Analysis**

## ABOUT US

Accelerated Analytics® is a comprehensive software-as-a-service (SaaS) solution for collecting, analyzing, and reporting on retail EDI 852, POS, and supply chain data. Accelerated Analytics includes rich web based analytics and mobile access so that business users can focus on growing profitable sales, reducing out of stocks, and optimizing assortments. Accelerated Analytics tools provide years of best practices in retail merchandising and are customizable to your exact requirements.

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