## ADVENTUREWORKS SALES ANALYSIS

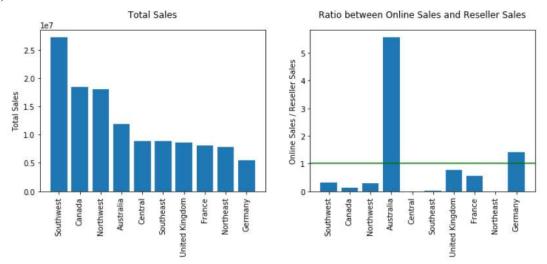
(for the sales representative team)
By Xuehong Liu

The goal of this report is to assist the Adventureworks sales representative team to evaluate sales performance and develop data-driven business strategies moving forward by comparing and contrasting online sales vs. reseller sales in different territories.

## 1. Summary of total sales and online sales by territories

Fig. 1 depict total sales by territory and the ratio between online sales and reseller sales by territory. The territories of interest include Northwest, Northeast, Central, Southwest, Southeast, Canada, France, Germany, Australia and the United Kingdom.

Total sales and online sales differ markedly among different territories. The largest sales occurred in Southwest with over 25 million in sales (Fig.1 left panel). The lowest sales occurred in Germany with a total sale about 5 million. For online sales, Australia had five times more online sales than reseller sales. Online sales were nearly absent in Central, Southeast and Northeast (Fig.1 right panel).



**Fig. 1. Summary of total sales and online sales by territories.** Left: Total sales by territory. Right: Ratio between online sales and reseller sale by territory. A ratio of one is represented by the green horizontal line.

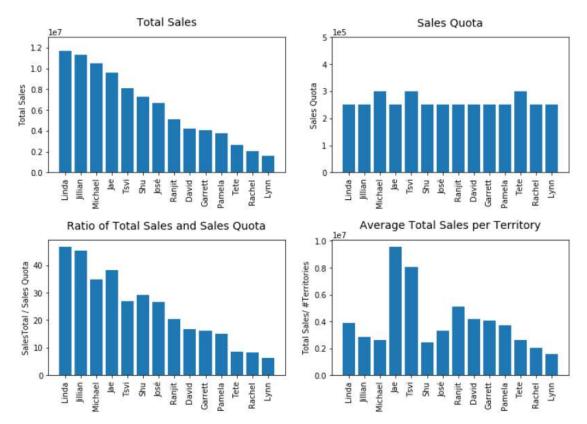
## 2. Summary of sales performance by sales representatives

Fig. 2 is a summary of the total sales by each sales representative in respective to their quotas. The data included are total sales by following individuals: Michael, Linda, Jillian, Garrett, Tsvi, Pamela, Shu, José, David, Tete, Lynn, Rachel, Jae and Ranjit. The top three performers are Linda, Jillian and Michael, each had over 10 million total sales (Fig. 2 top left). The poorest performer is Lynn with a total sale less than 2 million.

If the sales representatives are evaluated based on their sales quotas, Linda, Jillian and Jae are the top performers, each surpassed their quotas by over 35 times (Fig. 2 bottom left).

Because sales representatives covered different numbers of territories, their performance were also evaluated based on sales per territory (Fig. 2 bottom right). In this category, Jae and Tsvi are the top two performers with averaging sales per territory over 8 million.

Lynn is the poorest performer in all categories evaluated.



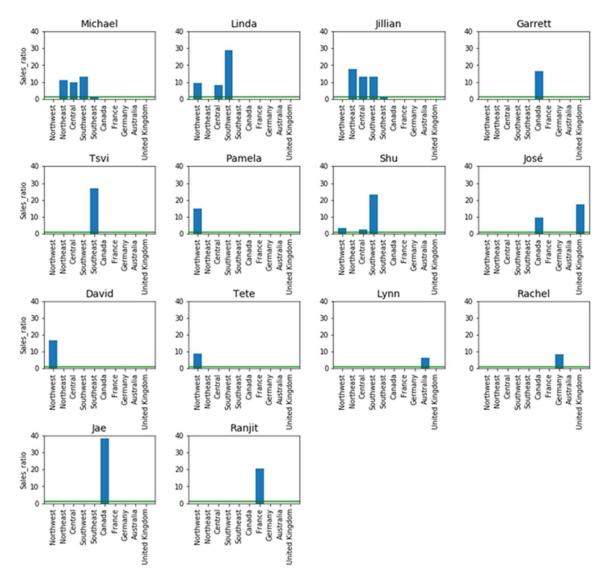
**Fig. 2.** Summary of sales performance by sales representatives. Top Left: Total sales by sales representatives, ranked from high to low. Top Right: Sales Quotas assigned to sales representatives. Bottom Left: Ratio of total sales and sales quota by sales representatives. Bottom Right: Average sales per territories by each sales representative.

To get more details on the sales by territory for each sales representative, sales data for each sales representative were plotted separately by territory (Fig. 3). The details are summarized below,

- Michael and Jillian covered the most territories (four each). They surpassed the quota in three of the territories (Northeast, Central, Southwest) by about to 10 times. Their total sales in Southeast were poorest, but they met the quota in Southeast nevertheless.
- Jae only had sales in Canada, but she surpassed her quota by nearly 40 times, the highest sales per territory among all sales representatives.
- Linda and Shu covered three territories each. Both of them did very well in Southwest, surpassing their quota by over 20 times. Linda also surpassed her quota in Northwest and

Central by near 10 times while Shu surpassed his quotas in Northwest and Central by about two times.

- Jose covered Canada and the United Kingdom. His sales in Canada were nearly 10 times than his quota and his sales in the United Kingdom was nearly 20 times than his quota.
- Garrett only had sales in Canada where the sales surpassed his quota by about 15 times.
- Tsvi only had sales in Southeast where the sales surpassed his quota by over 20 times.
- Pamela only had sales in Northwest where the sales surpassed her quota by about 15 times.
- David only had sales in Northwest where the sales surpassed his quota by over 15 times.
- Tete only had sales in Northwest where the sales surpassed his quota by nearly 10 times.
- Lynn only had sales in Australia where the sales surpassed her quota by about 5 times.
- Rachel only had sales in Germany where the sales surpassed her quota by nearly 10 times.
- Ranjit only had sales in France where the sales surpassed his quota by nearly 20 times.



**Fig. 3. Summary of sales performance by sales representatives by territory.** Ratio of total sales and sales quota for sales representatives are plotted against the territories each of them covered. The solid green line in each panel indicates a ratio of one.