**Case study goals**

In this case study, you'll work with a fictitious dataset from an online pet supply company called Whiskique. You have been hired as a new analyst to uncover insights into the company's overall performance and possible improvement opportunities.

**Whiskique's business goals**

Whiskique pet supply has two primary business goals. The first is to serve as many customers as possible and increase sales. The second is to reduce its operating expenses. Through the analysis work you will carry out for Whiskique, you will advise on increasing sales and reducing expenses. Let us begin with the opportunities for sales growth.

**Increase sales**

For sales growth, you will focus on upsell and cross-sell opportunities. In a cross-sell, you promote a relevant product at the point of purchase. For example, when a customer is ready to buy a beach umbrella, present an offer on beach chairs. In an upsell, you promote a higher-priced alternative or a higher quantity of a product. For example, when a customer buys pet food regularly, present an offer on organic food.

* We created a simple Market Basket technique to help Sales team to find the best items matching with each item to increase Sales

**Shipping cost reduction strategies**

For shipping cost reductions, we can explore some of the following alternatives. Consolidating multiple shipments into a single one. Reducing package size dimensions and weight. And, finally, shipping a higher quantity of a product.

* We use What-if scenario to visualize the difference in shipping cost in various quantities to find the best approach for reduce the cost.

Insights:

* Most often, Whiskique ships multiple products in a single shipment about 6%. however, room for improvement in selling higher quantities of the same product.
* California has the highest number of customers in USA (419customer) and Sale by more than 172,000$.
* North Dakota has the largest Average lifetime value (1278).
* "Sheba Perfect Portions Pat Wet Cat Food" product has the highest Average Quantity. While "Taste of the Wild High Prairie Grain-Dry Dog Food 40Ib" has the highest Sales amount by more than 270,000$.
* "Indoor Pet Camera" and "ChomChom Pet Hair Remover" have the highest Profit ratio by more than 60% although they don't have the largest Sales values.
* 1 item quantity has more than 30% amount Sales. And
* Based on the current adjustment of 70% applied to the shipping cost when shipping more than one item, Whiskique pays out a total of $385,150.
* Food category has the most sales by more than 500,000 $. Electronics had a profit percentage of 44.28% - by far the highest across all categories. When selecting the category, you can see that there are only two products that belong to Electronics. There could be opportunities here to increase the number of electronics products stocked!.