

The largest project I conducted at Lane Forest started from a senior manager asking me, "do we make money on the delivery of material to customers who live far away from Eugene?". This question in its simplest form is about measuring the expenses and revenue of an order. However, Lane Forest did not understand the cost of delivering material (which is a highly expensive service), they never refused delivering to a customer due to their location, and only one senior manager understood how prices were computed.

To understand the cost of delivering material I met with multiple functional area managers, and got data on delivery costs including taxes, repairs, payroll, etc. by truck type. I used this information to calculate per hour and per mile overhead rates. This model combined with a material cost equation represented the measurable expenses of a delivery order. Secondly, I modeled all possible order combinations and developed visualizations to explain KPI's to senior management. The heat map above was presented to senior managers, and displays the amount a customer needs to order by material and distance for Lane Forest to receive a profit margin of X%.

This project concluded by Lane Forest adjusting their prices to a pricing structure I designed. Lane Forest's adjusted prices allowed them to stop delivering materials at an expense to the business, and allowed them to accurately price more distant deliveries. Below is the new price (green) compared to the old price (yellow), and the cost of delivering materials (grey). The gap between the colored lines and the grey area represents the profit generated per order. Furthermore, a spreadsheet I developed uses a Google Distance API. This spreadsheet allows Lane Forest to calculate the delivery price per customer address, and this ensures accurate price quoting to customers by sales staff.

