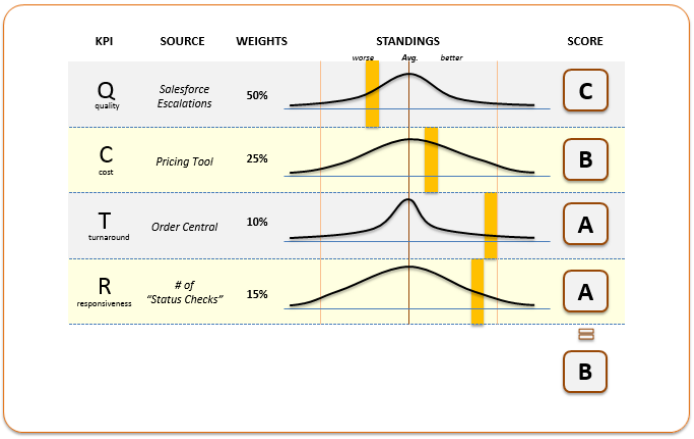
Optimization model for efficient job allocation to vendors

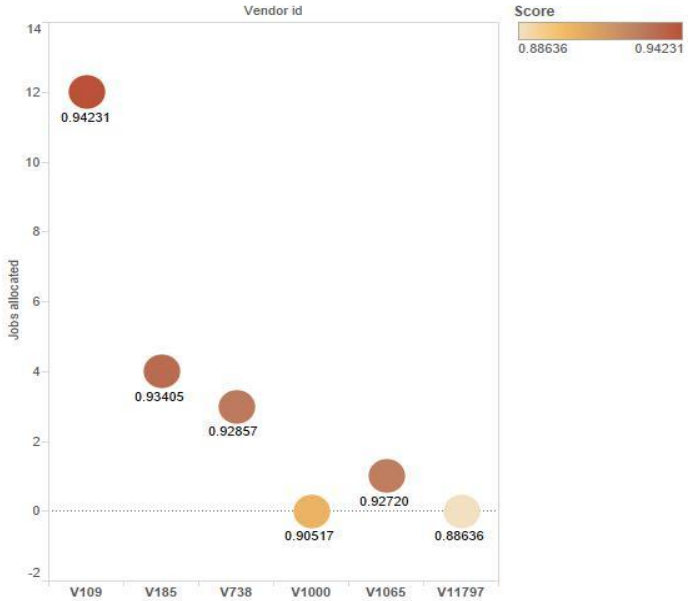
Client is a multi-national global information services specializing in corporate legal services. Client currently has a customer-vendor management system that allocates the jobs requested by the customers to the vendors, which involves a lot of paperwork. The client wants to automate this customer-vendor management system. A platform was created, which can automate the job allocation process by optimizing quality, turnaround, responsiveness and cost of the job. This platform can highly reduce the hassle of paperwork involved, the wait time for customers, and the money spent.

Client's requirement is to automate the existing job allocation technique by implementing an optimization model to increase job allocation capabilities while increasing the quality of the job, turnaround and responsiveness of the vendor and decreasing the cost for the job for the customer. Client's requirement is to allocate jobs to vendors depending on the vendor scores instantaneously. Each vendor is given a score (sum of Quality, Cost, Turnaround and Responsiveness) which determines how many jobs can be allocated to the each vendor.

Optimizer Methodology



Allocation of 20 jobs to a pool of 6 vendors based on vendor scores and job allocation time



Allocation is based on forced ranking method for the vendors and jobs were given priority based on the arrival time. The jobs are allocated based on arrival time, the job which arrives first will be given more preference. The forced ranking algorithm chooses the top four vendors from the pool of checked in vendors.