

ECONOMIC MODELING GENERATES LARGE PRODUCTIVITY GAINS VIA INSIGHTS INTO ORGANIZATIONAL POTENTIAL AND IMPACT OF DIFFERENT LEVERS

6-week engagement · 20% productivity increase enterprise wide within one year

SYNOPSIS

A PE-backed health care tech company sought to optimize its operations and better understand its potential along different pathways going forward. Horizon was retained to help senior management address the following questions:

1. What is the quantitative impact of the various levers that can be pulled and what are their optimal settings? For example, in what situations is it cost effective to use one technology pathway vs. another? How much overtime should we be using and in what circumstances?
2. How far away from the optimal configuration is each location and the enterprise?
3. What is the potential output and productivity of each location and the enterprise, given current resources?
4. Finally, which transformational investments (e.g., automation) make sense to pursue, and how much further could they increase potential?

SOLUTION

The Horizon team connected the pipes required to generate a data stream on the firm's production process and outputs and load up a relational database. We used it to design and estimate a regression model of the firm's production. With the results, we quantified the importance of labor input (# of employees and hours per employee), technology, and other productivity drivers. We then used linear programming techniques to solve for the optimal configuration of inputs, creating a plan and goals for each location. We deployed the plan in a data platform used by management to steer the enterprise toward the optimal configuration of inputs.

VALUE

Management made rapid progress. Changed workflows and improved communications were enabled by the data, insights, and tools that Horizon developed. Many locations made significant productivity gains within the first few months after deployment. One year later, the enterprise as a whole was 20% more productive.