Predictive costing at the service of your competitiveness

- Set up predictive costing
- Identity of Predictive Costing
- Download our publication

"Better to be roughly right than exactly wrong."

This sentence coined by John Maynard Keynes and later used by Warren Buffett could sum up the general idea underlying the practice of predictive costing. The art of building a predictive costing tool resides in the capacity to find the right balance between precision and speed, which is crucial to deliver accurate and timely forecasts to make the right decisions.

Too often, cost assessment is carried out improperly or uses models that rely on painstaking and sometimes obscure processes. As a result, companies find themselves asking legitimate questions:

- How can we use data from digital applications to improve efficiency?
- How can we transform the process to get accurate results as quickly as possible?
- How can we use the latest developments in data science to improve projections and ultimately the design of a new product?

Companies that successfully implement predictive cost assessment as part of their project management strategy are at a clear competitive advantage. By integrating a projection of all costs associated with a future product or service early into the development phase, predictive costing sheds light on potential scenarios at a time when everything has yet to be decided. We are still too often confronted with companies that manage their projects with absolutely no concern for the financials, only to realise too late that their operating margin target is, regrettably, way out of reach.

A mistake that too many companies make is to consider cost forecasts an end in and of itself and to treat them as a final element.

But the point of introducing predictive costing early into the development process is actually to use the information provided by the data to bring down walls between departments and create a collective dynamic to explore scenarios and reconcile two strategies: the creative, even intuitive design thinking approach, and the more analytic design-to-cost method. This combination of practices provides the right framework for an iterative process that will eventually lead to optimal cost-value compromises for the organisation. Predictive costing is most effective when used as part of a flexible and collaborative project management strategy.

From our standpoint, this is only possible if the predictive costing tool was originally designed to yield results that fuel everyone’s curiosity and creativity, in addition to providing insight into the situation.

As a result, a good predictive costing tool is one that is understood and adopted by all employees, one that will act as a shared language between operational teams, especially during convergence phases.

What Is the Definition of Predictive Costing?

The principle of predictive costing relies on forecasting costs on the basis of a set of available data. In actuality, it is often used in the early stages of a development project, to gain insight into possible financial scenarios and assess overall costs based on macroscopic elements.

The Various Calibration Levels for a Predictive Costing Tool:

- Linking cost drivers associated with a considered technology to costs.
  
  Example of a plastic part
  
  The cost of an injection-moulded plastic part can be determined from cost drivers associated with: the technology: material, projected area, overall dimensions and average thickness of the part; the industrial model: production volume and location, and number of manufacturing teams. Part’s overall cost = function of (surface, material, dimensions, average thickness, production volume, country of production, number of teams).

- Linking a product’s specifications with costs.
  
  Example of a shock damper
Considering the primary function of a shock damper is to dampen shocks, and that its performance depends on two main criteria – stiffness and maximum load capacity –, then it is simply a question of building a predictive costing tool that integrates these two factors as input data. With a data set large enough, the method consists in using an algorithm – or various algorithms – to determine the causal relations between these criteria and the product’s overall cost. This is the approach outlined below.

The advantage of these models is to challenge the product’s specifications, which we believe is the most effective strategy for early cost optimization.

Shock absorber’s overall cost = function of (stiffness, max. load capacity, production volume, country of production).

Ideally, level 2 tools should also integrate level 1, meaning the model should work as follows: Specifications → Part’s cost drivers → Projected costs. Using cost drivers as an intermediate provides the possibility to grasp the practical implications of the solution and understand how changes in specifications impact costs, thus creating a healthy dynamic

“Understand, question, optimize”. 

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