Needs-based Configuration: Beyond Guided Selling

Unleashing the Power of Your Products

In today's competitive manufacturing world, mass customization is no longer a unique selling point but an expectation. Customers expect suppliers to follow their needs and requirements and not the other way around. Companies who have customizable product offerings are finding that traditional guided selling solutions are not providing the sufficient breadth of offerings that the market requires.

Needs-based configuration allows your customers to get the best possible solution to their requirements – not just the best of what you hoped they needed.
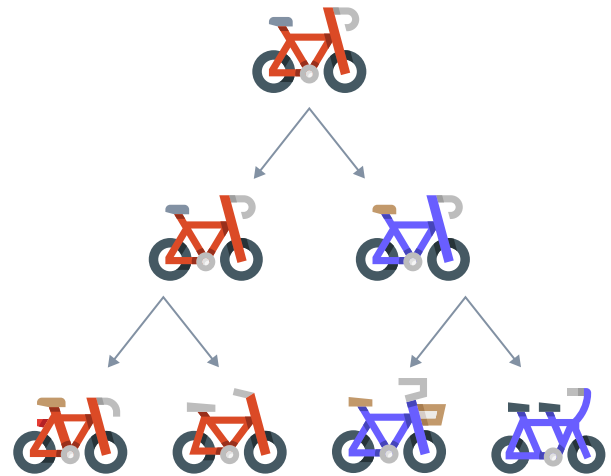
Guided Selling

First let's define our terms: Guided Selling tends to describe a situation where we allow the user to describe features or needs that the solution must fulfill – "I need a bicycle for travelling to work; I am 6' tall; I have a max budget of €600". The idea is that this then filters all possible solutions to only those that match the criteria.

From the user's perspective this appears to be a useful and intelligent way of getting what they need and in many situations it works fine. Customers no longer need to understand the product, for example, how a bicycle frame fits to a wheel – instead they just need to know how they want to use it.

However, many of these Guided Selling applications are really just a filtering of pre-configured solutions. The manufacturer has already defined a number of possible products; these may allow some minor customizations such as color or accessories included but for the most part what the customer gets is already decided – the customer is simply being guided to one of them.

In certain situations, this is possibly the best solution – the manufacturer may need to have manufactured stock ready to ship at short notice. It may also be necessary to know something about the solution that cannot be calculated in real-time such as the heat emitted by a pump or the vibration of a fan at a specific speed. In those cases, a supplier would need to decide which products should be sold and make those measurements ahead of time. Our guided selling questions would work with these known values to propose a suitable solution.

The problem with this method of selling is that it restricts the potential of your products. Customizable products will often have literally billions of possible permutations and combinations. Arrangements that have never been sold before and may never be sold again. Often customers have to make-do with the closest pre-defined solution to their needs rather than a solution created according to their needs.

This is where Needs-Based configuration is needed.

Needs-Based Configuration

At Tacton we use the term Needs-Based Configuration to describe an application that takes user-input and in real time selects the most appropriate and valid combination of product options to best meet the user's requirements.

This is possible due to the powerful configuration engine that lies at the heart of Tacton's CPQ application. This engine is built on an intelligent configuration module that allows the engine to quickly juggle all possible combinations and permutations of product options and characteristics and find the most optimal solution.

Optimization allows the engine to suggest the "best" solution based on any measurable criteria such as weight, price or delivery time. This means that the user can enter just the requirements they care about and let the configurator do the rest of the work.

What is especially impressive about this artificial intelligence core is that product and needsbased rules or constraints are often expressed in terms of the characteristics of the options rather than the options themselves. For instance, we don't write a rule that states that Wheel X allows Tire B or Tire C. Instead we write several constraints that describe why a

wheel is compatible with a tire: it may be several factors covering both physical dimensions as well as potential market-based logic determining what should be sold where.

This allows a division of maintenance across your company: one group enters and create the available items and their characteristics; another group can create rules for certain applications and uses; and yet another group can apply business and market specific logic to make sure only the right products are suggested for their customers.

The implications of such a system cannot be overstated. What this can mean is that as new items and components are added to your system, they will automatically be incorporated into the sales application potentially offering products that meet user requirements that previously could not be fulfilled. Suddenly the addition of stronger feet on a mobile crane will mean that certain crane models can now lift heavier loads at specific distances from the chassis.

In Closing

Any efforts that make life easier for customers is good. Whether it's a simple filtering mechanism or an advanced configurator, letting the customer focus on their needs instead of becoming experts in your products and tools will only mean more satisfied and hopefully returning customers. However, there are significant gains to be made by letting your customers access the entire spectrum which your products can cover, allowing them to find just that product combination that suits specifically their unique requirements. Now doesn't that sound like a unique selling point?

Tacton is a leading SaaS company trusted by global manufacturers. Tacton Trusted Configuration simplifies sales for manufacturers of complex products. Tacton's Configure Price Quote software is named a Leader by Gartner in the Magic Quadrant for CPQ Application Suites and is recognized for its advanced product configuration and visualization capabilities.

Tacton's founders pioneered computer-based product configuration which today powers Tacton CPQ and CAD Design Automation. Since 1998, Tacton is trusted by global customers such as ABB, Daimler, MAN, Scania, Siemens, Xylem, and Yaskawa. It is co-headquartered in Chicago and Stockholm, with regional offices in Karlsruhe, Warsaw, and Tokyo.

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