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Profit Pursuit

The advantages of mass customization and postponement

In our last department, we discussed using postponement as a means to leverage flexibility. Those of you in the APICS instructor community may have been a part of a follow-up discussion about postponement relative to mass customization; the question being, “is mass customization the same as postponement?”

Operations management professionals strive to provide highly customized products at mass production prices—and make a profit doing it. Thus, we find three concepts within this objective: customized products, postponement, and profitably.

Connecting the concepts

At the foundational level, the difference between the first two concepts can be as simple as the difference between the word “what” and the words “how,” “when,” and “where.” An effective mass customization strategy should describe what portfolio of products and services should be delivered to customers. On the other hand, postponement describes how, when, and where it is most efficient and effective to customize a product.

Largely driven by changing customer demand, mass customization strategies are carefully aligned with business strategies and enabled by recent advances in information technology. What used to be available to only the Rockefellers and Carnegies is increasingly being demanded by the Homer Simpsons of the world—and at “blue plate special” prices.

Irrespective of how the strategies are executed, there are three basic approaches for customizing products. First, modularization enables manufacturers to assemble various combinations of modules based on customer preferences. The personal computer

and automotive industries are excellent examples. The second approach is to design products in such a manner that key functional elements can be easily configured or adjusted mechanically or electrically, such as in the construction industry. The third tactic is to permanently fit a product to the customer’s dimensions; for example, in custom tailoring.

The intent of postponement is to move products to the last possible point at which they are still generic and can be easily and quickly customized when actual customer orders are received. Depending on the nature of the products, this differentiation point can be located anywhere along the supply chain. However, there are essentially two types of postponement: form postponement, where the final formation of the product is delayed until orders are received; and time postponement, where the final customization of the product is delayed until as late as possible in the process.

Where the money comes in

As market competition expands globally, whoever’s total costs are the lowest has the most leverage. Many business leaders are attempting to use their extended supply chains to achieve this profitability. For some, integrating suppliers into a responsive, well-orchestrated group is increasingly possible because of the advances in technology that help communicate—usually in real time—the information necessary to coordinate the products demanded by fickle customers.

For many trying to provide customized products at competitive prices, costs are still very difficult to

control. An integrated supply chain becomes geometrically more complicated as product variety increases. When the channel master forces price reductions out of the rest of the supply chain in order to meet final consumer expectation—while using product designs strictly defined by customized standards—a huge burden is placed on all members in the chain. And that is where postponement comes into play.

Postponement’s intent is to simplify the supply chain in order to enable

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manufacturers to more effectively support product variability. The closer a product’s differentiation point is moved to the end consumer, the longer the mass production process and the lower the costs. So the real question isn’t “are mass customization and postponement the same thing?” The real question is “is mass customization a design strategy or an operational one?” A lot of potentially bankrupt suppliers want to know. ❏

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