

Synchronous Solutions

The continuous pursuit of excellence

Time...is money



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"Remember that time is money." Benjamin Franklin, 1748.

We all know that, but here is a different twist on that old adage: All things being equal, focusing on speed and reliability (time) can earn you lots more money.

As noted in a previous article, as a manufacturer you have three basic objectives in business every day: (1) You provide a **quality product**, and this is **not** a competitive opportunity. You must produce (and have the earned reputation in providing) a quality product on every order. If you don't there will be no opportunity to continue in your market. (2) You provide **reasonable pricing**, and this is also **not** much of a competitive opportunity. Pricing margins are razor thin. You should strive to differentiate your business in ways other than being the cheapest provider. (3) You provide **timely availability** (aka customer service). This **is** a competitive opportunity. If you provide a quality product at reasonable prices, *speed* is the competitive advantage that can set you apart from your competition.

In 1965, Yale University undergraduate Fred Smith wrote a term paper that described the concept of overnight shipping. Smith's professor told him that, in order for him to get at least a C, the idea had to be feasible. The professor didn't consider Smith's concept to be feasible, so he gave him a low grade on the paper. The company Fred Smith later founded, FedEx, revolutionized the shipping industry. Moreover, it set a new standard that speed to market can be a major competitive advantage for any product or service.

In the 1970's an entire manufacturing and distribution science was developed called Quick Response as a management concept created to shorten the lead time in the entire supply chain from the original raw material through the completion of the finished product for the consumer. In addition to dramatic improvements in customer service, this concept caused a significant improvement in cash flow across all the companies in the supply chain.

One of the fundamental elements of Synchronous Flow is speed to market by controlling the amount of work-in-process within the manufacturing system. Just as a whitewater river moves rapidly compared to a deep-water segment, the levels of inventory in the system can dictate the speed of processing through it.



Speed to the market can be measured in several ways:

- **Lead Time** is generally the time from the start of a process until its conclusion. For a manufacturer it is the time from the closing of the sale to the complete satisfaction of the customer for the product or service delivered. Depending on many factors related to the customer, processing issues and materials availability, this could be days, weeks or even months in duration.

In a custom manufacturing industry like fabrication, lead time would include the time after the sale to confirm all the details that the customer wants. This is an important (and sometimes erroneously minimized) step to assure customer satisfaction. In the fabrication industry, this role is completed by the office staff; a role usually called Project Management, Customer Service or Processing. Only when all this is done to absolute completion can the regular manufacturing functions begin. Releasing jobs into manufacturing before these steps are completed is a mistake. Doing so will assure disruption in the flow of the system, which will decrease productivity and will increase the chaos that your manufacturing staff must endure.

The Synchronous Flow system, specifies that three tests must be passed before an order can be considered ready for release to manufacturing:

1. All information known. That means every blank on the order form must be filled in. It means that every detail that the customer desires has been confirmed. It means that there is no chance that the customer will be dissatisfied with the finished product details. Use of a checklist for the Project Management staff is the best way to assure this step is completed satisfactorily.
2. All material available. Either the needed material should be on site or its delivery before its needed time should be confirmed with the vendor. Waiting on material delivery is a terrible disruption to the desired *flow* through the manufacturing system. Again, not having all material available when it is needed will decrease productivity and will increase chaos.
3. Jobsite ready. It should also be the role of Project Management to assure that the jobsite is ready for the company to complete its tasks. Confirmation that an adult is at the jobsite to open the door is important. Completion of the Template is possible only if the cabinets are fully installed. Installing the finished product is not possible unless there is easy access to the jobsite. Other trades (flooring, painting, electrical, etc.) must be confirmed to be no obstacle to the Installation Teams. This is also an often minimized or overlooked role. Historical analysis of issues faced by Template and Installation Teams has revealed that one of the most common problems encountered is that the jobsite was just not ready for them.

- **Process Time.** This is the time consumed during all the manufacturing steps. In the fabrication industry, it begins with the Template (measurement) of the jobsite and concludes with the final installation of the finished products. In the Synchronous Flow system, a one-week process time is common. Template on Monday with Installation on the following Monday is actually six days. With a properly designed system and with discipline in following its principles, this is attainable and can be a major competitive advantage in the market.
- **Touch Time.** This is the time that the product is actually being worked on, and value is being added. Touch time does not include any idle time that a product is waiting to move to the next workstation. The pure fabrication time for a typical kitchen countertop could be only an hour or so. Yet, many companies struggle to achieve a two-week Process Time. The difference is idle time, for various reasons, during which the product is waiting for the next operation step.

Inventory equals time.

So, if it only takes an hour or so to complete a fabrication job, why not plan to do every job that fast? The answer is “Murphy,” which is a codeword for everything that can go wrong. Unless you have some protection against attacks by Murphy (machines down, employees absent, broken pieces, employee mistakes, customer changes, etc.), the entire system can be stalled. With some planned inventory, staged at strategic locations, you can protect the system against the common disruptions caused by Murphy. These planned inventory locations are called Buffers, which should be managed all day every day. Buffers are like *shock absorbers* that will protect the system flow against common disruptions. Buffers lower than the minimum levels should get the attention of management before they are depleted. Buffers exceeding the maximum levels will increase Processing Times. By watching the Buffer status and taking action to keep them healthy, you can protect the system flow and you can maintain the desired Process Time.



Using these strategies will allow you to *sell time*. In other words, your sales force can have another arrow in their quiver related to your ability to be faster and more reliable than your competition. Moreover, by operating using a fast processing strategy, you can live with less inventory which will lead to more profits and better cash flow.

For more information on how to effectively sell speed to market, contact:

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