

THE CYCLE-TIME ADVANTAGE

An integrated approach delivers the greatest competitive impact, contend the authors of a new book on managing the total business cycle.

GLOBAL COMPETITIVENESS IS FORCING COMPANIES OF ALL sizes to go to ever-greater lengths to improve customer satisfaction. If they focus on cycle time as their productivity measure, they can both decrease delivery time and improve quality, obviously creating a more satisfied customer. A company's total business-cycle time is measured from the time a customer's need is identified to receipt of payment from that customer for the finished product.

The best analogy is a relay race. The time begins with the starting gun and ends when the last runner breaks the tape at the finish line. It includes all the time required to run each leg, as well as the time required to transfer the baton at the end of each leg. Total business-cycle time includes any or all of the following subcycles or loops:

The make/ship loop. The time from receipt of material, through the value-adding conversion steps, to shipment or transfer of a finished product to the distribution loop.

The distribution loop. The time from finished production to shipment to the customer from the distribution warehouse.

The supply loop. The time from release of the purchase order to receipt of the correct materials in the right quantities at the right point in the manufacturing process.

The new-product-introduction loop. The time from

identification of the need for a new product to delivery of the first unit of product to a customer.

The strategic-business-development loop. The time required to develop a new strategy, make the decision to adopt it, and then implement it.

In the last decade, it has become clear that the compartmentalization of these loops has inhibited competitiveness. All the loops must be integrated if total business-cycle time is to be reduced. In the 1980s most companies trying to make improvements focused on the make/ship loop. Prior to 1980 a long backlog of orders in this loop created a sense of complacency. This complacency rippled through the distribution and supply loops as well. As long as customers tolerated the long wait, the system worked, because it enabled the manufacturing process to "minimize product cost" by using "economical"

batch sizes. This approach increased the total cycle time, but time was not perceived as a critical issue. When customers started demanding shorter delivery times and were able to get them from competitors, a problem arose. Sales departments responded to this competition in the following ways:

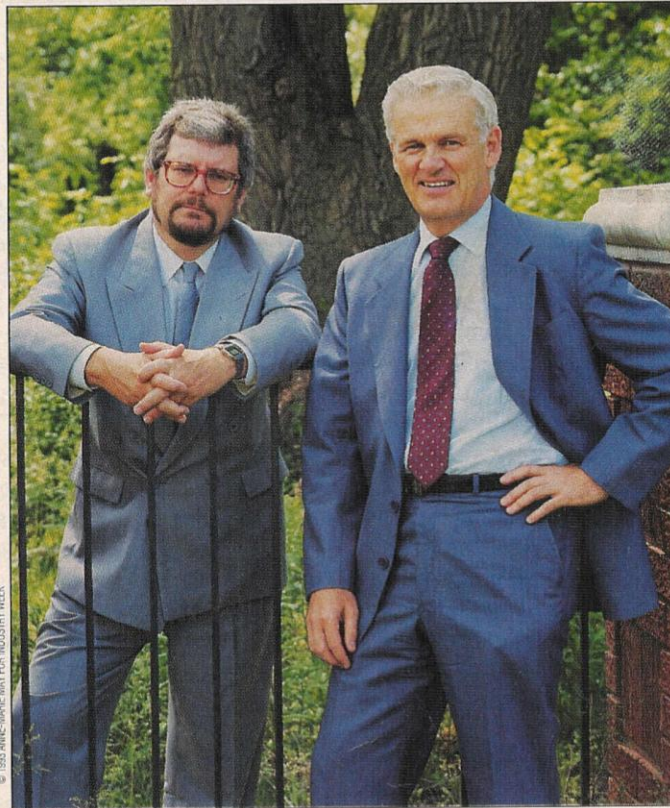
✓ *They persuaded manufacturing to commit to unrealistic delivery times.* As a result, sales departments soon discovered that they were constantly having to break promises to

customers; to keep customers happy, they had to become internal expeditors, which increased the tension with manufacturing.

✓ *They increased factory orders for finished goods and distribution inventory.* This increase put even more pressure on manufacturing, and the ensuing loss of trust led to second-guessing between marketing and manufacturing. In addition, the already uncertain sales forecast used to order material supplies had to be made even further in advance, since the suppliers were caught in the same time squeeze. As the forecast period was extended, the potential for error and disagreement increased.

A double problem arose for those organizations whose competitors *could* deliver the correct product in a measurably shorter cycle time. The lower cycle time meant that these competitors could produce at lower cost and did not

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require such large inventories, which further reduced their costs. Not only were the slower companies struggling to compete, but they were faced with margin problems caused by the higher costs of inventory and waste in the structure.

The reaction of some manufacturers was to reduce their inventories. For a while the "slimming pill" worked. But as competitors with shorter cycle times continued to steal market share, it became obvious that to survive companies would have to do things differently, not just do them harder.

The next villain manufacturers focused on was the excessive time required by the manufacturing cycle. To reduce cycle time, many companies initially relied on new technology. Although technology has a role in the new cycle-time-focused approach, it is an expensive and often ineffective way to start. The reality is that as many as 90% of the existing activities are nonessential and can be eliminated. As soon as manufacturers focused on processes, they could see the waste associated with changeovers, quality defects, process control, factory layout, machine downtime, and scheduling. They soon realized they could dramatically reduce the make/ship-loop cycle time.

AS THE MANUFACTURING cycle time started to decrease, it became apparent that the cycle time for processing a customer's purchase order was greater than the time it took to manufacture the product. This was not surprising because in the traditional environment of long manufacturing cycle time there is no incentive to rush the customer-order paperwork through. It will only sit in the queue until manufacturing is ready for it. While reducing the cycle time in the make/ship loop is the logical place to start, reducing this loop's cycle time in isolation will not be enough to satisfy customer demands for better quality products, delivered more quickly. Once you reduce cycle time in the make/ship loop, the activities in the other traditional loops become the next focus for improvement.

The complexities associated with the distribution loop vary from business to business. The issue, however, is not how many hands the order goes through, but what essential role these hands play in the process and how long the process takes. For example, distributors may not be providing timely sales information because they are using the order-point method of signaling their needs. This can delay arrival of the information to the manufacturing process for several days. Some companies have taken advantage of computer networking systems to provide sales-order information on a daily basis.

Although the supply loop is a significant contributor to the total business cycle time, most companies are powerless to force suppliers to reduce their cycle times. Only large companies, such as the automotive giants, have had enough clout to

insist that their material be delivered "just-in-time." Until suppliers develop their own programs for reducing internal cycle time, the objective for most companies will be to ensure the stability of material deliveries by encouraging the supplier's efforts to improve quality.

To succeed in the 1990s, many corporations will have to dramatically reduce their new-product-introduction time. As product life cycles continue to decrease, the key to success will be to integrate 1. new-product strategies; 2. new-product research; 3. product development; and 4. launch activities into one effective short-cycle capability that can respond consistently to ever-increasing market demands. To minimize the new-product-introduction cycle time requires an organization that has already minimized cycle times in the other loops and is able to integrate them with this loop.

The strategic-business-development loop is probably the

most poorly managed of all loops. This is not because the people involved lack skill or intelligence, but because they do not fully understand the high financial returns to be gained from improving the loop's cycle time. Many books and articles have been written on the correct way to manage this loop. Some even hint at how to improve the cycle time. But few (if any) expose this loop as the prime mover for total business improvement. Rarely is the overall business-cycle time labeled as either an area for improvement or a parameter to be coordinated through the strategic-business-development process.

Too often, this loop is encumbered by size, politics, economics, and legal and financial inertia. The corporations that can eliminate red tape and minimize the time required to make and execute decisions will be able to survive in the 1990s. Those that cannot meet those demands will not make it into the next century. Unfortunately, many companies have not even started to reduce their total business-cycle times. The result is that not only are they denied short new-product-development and strategic-planning cycle times, but they are failing to meet rising customer expectations for shorter delivery times, higher quality, and wider product variety. The only way to keep up is to integrate the supply, make/ship, and distribution loops into one short-cycle-time manufacturing loop—and then integrate that with the new-product-development and strategic-planning loops.

A short strategic-planning loop ensures that all five loops will be integrated and embeds continuous cycle-time reduction into the corporate culture. ◀

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Patrick Northey and Nigel Southway: "The corporations that can eliminate red tape and minimize the time required to make and execute decisions will be able to survive in the 1990s."