How to Become a Fast Cycle Time Competitor

By

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> "Customers use our time up until their decision to buy, after that we are using their time. Therefore, we must deliver immediately. The key, then, is the shortening of the elapsed interval between the customer's identified need and his, her or its fulfillment."
>
> Stan Davis, *Future Perfect*

The ongoing ability to deliver a quality product or service quicker than the competition creates a sustainable competitive advantage. Based on this principle and at the expense of the U.S. Postal Service, Federal Express created a new industry. Apple transformed the music industry by figuring out how to address the challenge of digital music piracy before record companies could. It followed that by redefining the smartphone at the expense of Blackberry and Palm market share. Just as Chrysler once turned the auto industry upside down when they created the mini-van, Toyota stormed to green leadership with the ground breaking Prius. The bottom line is that when customers want to buy, the first supplier who can fill that need with a quality product or service will flourish. These companies operate in Fast Cycle Time[i] (FCT).

The competitive benefits of FCT are substantial. The first entrant into a market dominates that market in both share and profit margins. Pricing pressure does not exist when there are no other competitors. FCT leaders set the standards that reinforce their leadership which others must follow. They secure the prime distribution channels and key supplier relationships which create additional entry barriers for the competition.

FCT is the ongoing ability to identify, satisfy and be paid for meeting customer needs faster than anyone else. There are several key words in this definition.

The first one is ongoing. Although useful, single shot cycle time reductions do not provide a sustainable competitive advantage. In a competitive environment, the race is never over. Competitors who improve continuously will pass one-time wonders or those who pause to relax.

The next key word is identify. FCT is the responsibility of *every* organization function from the start of the business cycle through the end. Many incorrectly treat cycle time as an exclusively manufacturing or engineering issue. The firm that identifies customer needs first, has a head start in filling those needs. Furthermore, bad designs are frequently the result of good engineering that failed to address what customers truly desire.

Satisfy means that one cannot sacrifice quality or customer value for time. The old rule was that if you required a product or service quickly, it would cost more and the quality couldn't be guaranteed. That thinking is long dead. World-class competitors such as Federal Express have clearly demonstrated that speed does not have to sacrifice quality or cost.

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Paid refers to the attention FCT companies place on the total business cycle. For example, years ago when FCT pioneer Toyota reduced its manufacturing cycle time to less than 2 days, they found it still took 17 days to sell and deliver its cars. FCT companies view their organization as a value delivery system. As a system, the slowest sub-cycle limits the overall system's total cycle time.

Meeting customer needs is surprisingly the factor that is least addressed; particularly by technologists. The latest technology may be extremely cool but if it doesn't deliver customer value, bringing it to market before others offers little business value.

Last, faster than anyone else reflects the realities of global competition. If there is a foreign competitor who is faster but not currently attacking, it is only a matter of time before they will be. Massive share changes in the auto, semiconductor and cell phone industries have demonstrated the hard lessons of ignoring international competition.

Most leaders don't need one to build the case for speed. The question is how do you achieve it? To achieve FCT requires a systemic approach. Simply stated, it starts with initiative rapidly followed by aligning purpose, strategy and structure to create a value delivery system that rapidly creates new value for their customers. This paper defines the six key steps for becoming a FCT competitor.

1. Make sure everyone understands what your end customer(s) regard as added value and reflect that in every job and level within the organization.

2. Focus every organization element on the work which adds value to the end customer(s).

3. Re-design your organization so that it is flat, with permeable boundaries and harnesses multi-functional/organizational teams with blurred boundaries: inside and out.

4. Pursue process excellence and development as avidly as product or service development.

5. Set "stretch" cycle time goals and publicly measure progress.

6. Create an environment which stimulates and rewards continuous initiative and learning.

1. Make sure everyone understands what your end customer(s) regard as added value and reflect that in every job and level within the organization.

No one is fast at everything. Trying to do so will only cause more errors, stress and eventually, burnout. Your goal is to be fast where it matters most to customers and supports your business model. In tactical terms, this means focusing the entire organization on work which adds value to the end customer while concurrently trying to eliminate anything that doesn't. To do this, all employees must know who the end customer(s) are and what constitutes value *in their eyes* .

End customers are those who pay for the products or services. You may have more than one end customer. For example consumer products, have several end customers along the distribution chain starting with the distributor and ending at the consumer. Health services are even more complicated as there are patients, doctors, hospitals, and financing customer needs. What is value added for one may not be value added for another. There are no hard and fast limits beyond common sense for the number of end customers one might have or their priority. Our point is to understand where the value added is for each customer you serve and how that relates to your business model. Only then can you intelligent focus your acceleration efforts.

The end customer view argues against the "internal customer" concept as popularized by some quality programs. The internal customer notion suggests that each job has an upstream supplier and a downstream customer. For example, manufacturing is the customer of engineering's designs. While this approach improves understanding mutual dependencies, the terminology causes people to incorrectly equate so-called internal customers needs with those of the end customer. The difference is critical: end customers generate revenue while internal customers generate cost. For example, internal customers create 99% of the paperwork in organizations. Paperwork rarely adds value to end customers. Sticking to the end customer's definition of value added exposes internal non-value added time and activities.

After defining who is the end customer(s), one has to define what is value added to them. A rule of thumb for determining value added is whether or not they are willing to pay for the product, service or feature. If they are not willing to pay for it, then it is probably not value added. The information to make this determination comes from one place: the customer.

Traditionally, we've relied on sales and marketing to channel the customer's definition of value added into the organization. While efficient, this approach limits the direct contact other functions have with the customer. It is increasingly evident that expanding the breadth of contact with end customers inside the firm sharpens all employees understanding of what is value added. It also heightens their motivation to deliver it. People are generally more sensitive to disappointing a customer than they are an internal function. This also establishes a ongoing dialogue between the firm and their customers that is essential to understand the evolving nuances of what creates a superior customer experience.

For example, a leading manufacturer of electronic test equipment conducted a focus group in which customers compared their equipment to a competitor's. Invited to the focus group were several young engineers from the development team. Standing behind a one-way mirror, the engineers saw that most of the customers were attracted to their product before it was turned on. Once turned on, the customers drifted en masse to the competitor's product. Why? The competitors interfrace was far more elegant and easier to use. Seeing their competitor's "inferior" product surrounded by customers quickly drove them to address issues that marketing had raised but weren't consider critical.

Interaction of your technical people with customers can also open new opportunities that sales and marketing lack the knowledge to see. When Dupont polymer technicians' visited Reebok to address manufacturing issues, a side conversation began regarding Nike's "air cushion" technology. The technicians devised a solution using implanted rubber tubes; of course made by Dupont. The point is that defining customer experience value has many dimensions that are

best understood by multiple contacts.

While end customer(s) are the ultimate source of defining what is or is not value added, senior leaders retain responsible for choosing where they focuses investment and resources relative to those needs. They do this by defining a strategic position and value proposition for their organization. The value proposition is unique to each firm. For example, Google adds value by improving search and delivering functionality through the "cloud" while Microsoft remains primarily focused on operating systems and applications delivered on the desktop. As they tread into each others' space, their differing value propositions become more visible. Google Apps stress the collaboration advantage cloud computing offers yet they lack the feature richness to the comparable desktop application from Microsoft.

Contrasting WalMart and Nordstrom's value propositions provides a compelling example of how a good value proposition and business model are linked. WalMart's value proposition is low prices. They are relentlessly pushing suppliers for lower prices across every aspect of entire supply chain. Key suppliers such as Procter & Gamble have significant outposts next to WalMart's corporate headquarters in Bentonville, Arkansas to respond quickly to WalMart business decisions.

In contrast, Nordstrom wins through extraordinary customer service. Whereas returning a product to WalMart without having a receipt is likely to be difficult, at Nordstroms, it's a breeze. Neither model is better; they're just different. Each company's value proposition helps define what is, or more importantly, is not, value-added for their employees. Charging higher prices for better service would erode WalMart's advantage just as lower prices at the expense of service would harm Nordstrom.

A value proposition evolves over time. Leaders err if they assume the value proposition is fixed, obvious and easily understood by all. Those that make this error concentrate on managing internal efficiencies. When internal functions operate to differing, local definitions of the firm's value proposition, speed is sapped by internal conflicts and confusion. The number of crisis meetings and exceptions rapidly escalate. Ultimately, the customer suffers and takes their business elsewhere.

Think of work within a firm as a series of interconnected streams of activity. As illustrated below, these tasks need to be aligned to each other and in service of creating customer value. When an organization is not aligned around the value proposition, it's like driving a car with the front-end out of alignment. The car pulls to one side and has to be constantly corrected. When the streams are not aligned, people will be working harder than they should yet the net force of their collective efforts is significantly less. To be sure, alignment takes more than a aligned process streams. Structural elements such as reward systems, policies, cultural norms and organization design must be aligned as well.

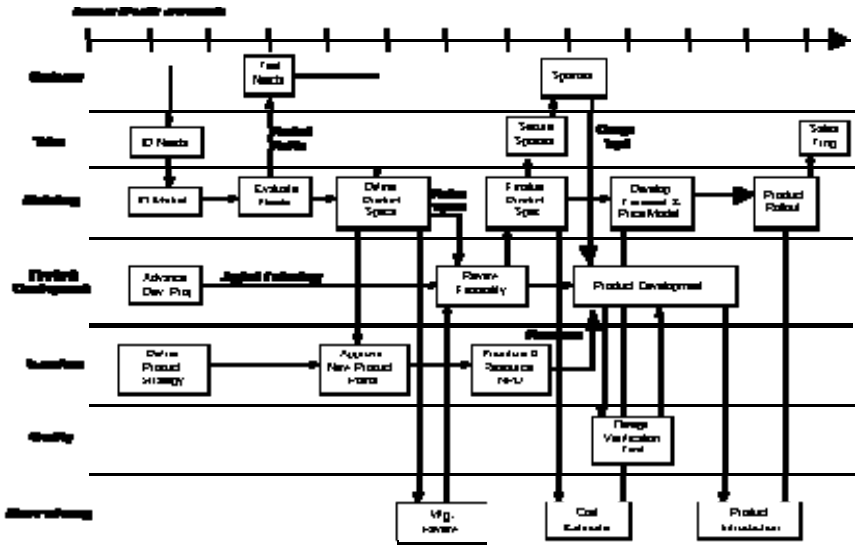

Figure 1

FCT leaders continuously test their firm's/workgroup's core value proposition making sure it is highly relevant and embedded into each work stream task. Beyond that, it is essential to establish an ongoing dialog between internal and external stakeholders (e.g. partners and suppliers) as you'll never achieve a perfect process design. Increasingly, customers expect their suppliers to personalize and adjust their offerings for specific, and often, one-time requirements. FCT companies depend on employee initiative to supplement process excellence. Value delivery processes must be designed with flexibility that supports such initiative and selective rule breaking. Motorola's highly successful Razor cell phone violated several corporate standards such as width in order to achieve the thinness and elegance that made it a winner. A sample of tactics used to do this includes:

1. Frequent briefings such as corporate video newscasts, All Hands meetings, annual reports and internal newsletters. These are supplemented with internal blogs, wiki's and other two-way tools that create an ongoing conversation re: customer value.

2. Require leaders to explicitly link their value proposition to decisions in business reviews.

3. Conduct special sessions to describe and test the value proposition with key constituencies including customers, suppliers, project teams, etc. using externally composed councils

4. Use visual tangibles such as décor, meeting room art, desk accessories, t-shirts, coffee cups, to keep the value proposition visibly in front of everyone.

2. Focus every organization element on the work which adds value to the end customer(s).

Work can be classified two ways: value added and non-value added. Value added work is work for which customer is willing to pay. Painting a car a specific color is value added work.

Arranging and delivering flowers is value added. Designing a custom circuit and fabricating a chip is value added. Non-value added work is work that the customer is not willing to pay for even if the production or service delivery process may require it. For example, testing a car's paint job for durability is not something a customer is willing to pay for. Surprised? Many might argue that not testing the paint could cause it to fade quickly, thus upsetting the customer. No question about that, but consider this. What would be your reaction to a car's window sticker if you saw below the $699 for metallic paint an additional $45 charge for paint testing?

Non-value added practices such as testing are required because we do not fully understand or trust the outcome of today's approach. This may be because the technology is new, hard to control or perhaps simply poor practice. In either case, testing is a patch until the process is made more robust. Testing quality into the product is always more costly than designing it in. While one may debate when a process is stable enough to remove testing, the goal to do so should be constant.

To understand what work adds value, you need to construct a high level map the organization's value delivery system as illustrated in Figure 1. By limiting the amount of detail, it is easier to identify which are the most important value adding streams. For some, it may be the new product development process while for others it could be service delivery, manufacturing or distribution. Once identified, map that stream in greater detail. The map should minimally identify the stream stakeholders, key tasks and the time required to complete them. It may be useful to selectively specify the inputs and outputs of critical steps. The map should accurately reflect how the process works today. During the mapping, many want to jump to how the process ought to look or be changed. It's important to defer these discussions until after the map of the current approach is completed. Without agreement regarding how the work flows today discussions of how it should flow become academic.

Creating this map is not as easy as it appears. Each person starts with their own mental model of how the delivery system works. These models are colored by personal experience. Senior managers tend to use tasks and steps from past experience which may no longer be valid. When a high technology company mapped their product development process, management was shocked to find the product definition phase alone could take as long as six months. Their mental model came from a time when the company was much smaller and products were far simpler.

Avoid constructing an overly precise map. Work to create broad agreement on the major process steps and interdependencies. Then identify which steps are clearly value-added vs. those that are not, including down time. Down time is when time passes with no work occurring. This can be caused by waiting for someone else to do something, technical needs such as curing or simply bad process. Done properly, the amount of non-value added work will dramatically outweigh the value-added time. Go after the low-hanging fruit first by testing where you can eliminate or compress non-value added work. Often 25% savings can be gained by simply "shrinking" the current process. A shrink has the same basic structure as the current process with many non-value tasks removed.

Shrinks reflect efficiency improvements which do not fundamentally re-structure the value delivery process or yield a substantial competitive advantage. Major breakthroughs come from insights which fundamentally re-structure the core elements of the value delivery process.

Clearly understanding the current delivery process combined with seriously questioning and entertaining creative alternatives generates such insights.

To become a FCT competitor one must understand the value delivery process sufficiently to define and focus everyone's attention on value added work. It is curious that American business leaders love to invoke sports metaphors but rarely discuss the ratio of process analysis (e.g. studying game films) and process improvement (practice) to actual playing time. A typical ratio in the NFL is a hundred hours off the field for every hour played. An informal survey I've conducted during my seminar series at the California Institute of Technology FCT rarely finds more than two executives per class who spend more than a day every quarter reviewing their organization's work processes. Every outcome we achieve is the result of some process. If you want to significantly speed up results, examine the underlying process.

3. Re-design your organization so that it is flat, with permeable boundaries and use multi-functional/organizational teams as the primary value creation force.

Large, hierarchical organizations are rarely quick. Every time an approval is required, there is a delay at each step as the request is submitted, considered, and ultimately acted upon. The further the approval level is from the origination point, the greater the time delay. Hierarchies also invite compliance more than initiative. Who ever got fired for bumping a decision to higher level for approval?

Organizations that are structured around specific functions (e.g. sales, marketing, operations, etc.) parse customer problems into distinct pieces between separate functional groups. The parsing is never precise and inevitably, some needs fall in the cracks. More importantly, distinct functions never experience the complete problem or its ramifications as the customer does. Instead, all they see and attempt to remedy is a sub-set of the problem.

As a result, solutions are internally defined within each function. To wit, engineering has its own design standards just as manufacturing has its quality standards. These standards are isolated from each other and most importantly, the customer. The customer is concerned about the total product or service experience whereas functional units are primarily focused on their limited responsibilities (and budgets!). The responsibility for integration separate work streams is usually shouldered by an individual at least one level higher than the functions.

This only speaks to what happens inside the firm. Today, an increasing proportion of value creation occurs outside the firm through partners, suppliers, and even customers. Since overall speed and customer experience is set by the lowest common denominator, fast company boundaries are more permeable than slower competitors and their teams are as effective between organizations as they are internally.

In many firms, task forces and temporary cross-functional vehicles are used to provide the missing integration mechanism. The problem is that unless the norms and procedures strongly support the integration process, when conflict emerges between the team and functions, most will follow the function's lead. It's the path of least resistance. In practice this comes down to "Who writes your performance review?" or "who controls the budget". In this context, it's not surprising that engineers generate designs which manufacturing cannot mass produce and fail

to excite customers?

The proven alternative is some form of multi-functional, team-based organization. The most visible element is the team itself. Composed of people from different functional disciplines and groups, the teams has responsibility for the core work processes that create customer value and experience. For major efforts, this is a highly structured and visible project team. For minor refresh efforts, this might be a cross-functional coordination body. Companies such as Cisco Systems have instituted cross-business boards and councils to achieve the same impact across interdependent business groups.

Specific elements such as team structure and number of teams are driven by the organization's value proposition, objectives, customer experience requirements, etc. In practice this means that the growth of functional capabilities occurs in service of these integration needs.

Figure 2

Figure 2 depicts the multi-functional team. The team includes all within the box. The core group leads the team and includes representatives from the critical functions; minimally including product development, marketing and operations. Do not let the core group get too large. Every function need not be directly represented. For example, the marketing typically represents sales. Should a specific concern arise that needs direct involvement of sales expertise, then the marketing leaders would invite that person to a specific meeting.

In contrast to the team itself, team-based organizations resist easy depiction. The supporting cast and connections to other teams are in constant flux. The teams act as nodes in an organic network which continually adjusts itself in response to new demands. The functions role is to support the teams in the value-adding processes as defined by the strategy and team needs.

Business teams are different than a classical matrix organization primarily in the breadth and scope of their responsibility. In theory, a matrix splits power equally between project and functional bosses. In practice, however, the functional bosses often wield more than 50% of the power because they usually control where resources are assigned.

The team structure is designed to support core value adding tasks. Remember, value added is defined by customers and not a single function. For major projects in a team-based organization at least 51% of the power resides in the team. While an oversimplification, functional leaders often experience the change as one where the team acts as the line organization and the functions act as staff. In practice, team leaders take over operating responsibility for elements

of the business as functional leaders focus more on strategic issues including future capability development, strategic relationships and technology development.

To keep this from turning into chaos, senior management must ensure teams have clear goals and chartered accountabilities. Establishing and eliminating teams is management's primary control mechanism. Within these defined parameters, teams have the power to take whatever actions are necessary to serve customers. Since the team contains the breadth of expertise required, there are few cracks for issues to fall into.

Shifting value delivery into teams requires a fundamental shift in the organization's power structure. If leadership allows the traditional functional dominance to continue, employees will accurately perceive the teams as nice but not essential. The success of a multi-functional, team-based organization depends on reshaping the firms overall architecture. The worst thing one could do would be to throw a group of people from engineering, operations, and marketing together and call them a multi-functional team. They would find themselves struggling to define their role as they simultaneously tried to shift the organization's functional mindset about their role. Well-designed, team-based structures define the roles and responsibilities for those *off the team* as well as those on the team. Issues to be considered in the architecture include:

1. Initial definition of team goals

2. Team charter

3. Team member vs. functional responsibilities

4. Boundary conditions/limits of the teams

5. Linkage responsibilities to other teams, partners, functions and management

6. Team and personal reward/recognition

7. Operating and performance metrics

No amount of planning or design will eliminate conflicting demands; in fact it is just this tension that makes the structure work. Strong teams get their strength from strong functions and partner capabilities. Teams are ineffective because they are not provided the capabilities to succeed. No amount of team spirit will get a team of sub-six foot basketball players into the NBA finals. If you don't have the talent on the team, it won't win.

Some argue that this structure requires more talent than a functional organization. Our experience is this is not true. The team structure will illuminate talent gaps that already exist in traditional organizations but are masked. As you define how many teams you need and what talents are needed inevitably the supply of capable talent will be exhausted before each team is fully staffed. Where these gaps appear is where capabilities are lacking. You could have the right numbers of people required but if you're not will to give them this degree of responsibility, you probably are lacking the right capabilities.

Just as multi-functional teams blur boundaries within the organization, FCT competitors do the same between suppliers, partners and customers. The concept of permeable boundaries requires FCT companies to minimize the distinctions as much as practically possible between suppliers and customers in the value delivery effort. Of course, this applies most importantly to critical stakeholders versus every stakeholder involved. Nonetheless, the fastest companies companies apply legal and specifically intellectual property policies using a broader set of criteria. The fewer boundaries which exist in space or time, the faster the value delivery process can be.

For example, Quantum Corporation, a leading maker of disk and tape storage arrays, designs application specific integrated circuits (ASIC) which a chip vendor manufactures. Quantum includes FCT in its vendor selection criteria. The net result is that suppliers often station their engineers at Quantum to speed the design of an ASIC.

At the other end of the spectrum, customers are increasingly being included in the design phase of the value delivery process. Companies such as Procter & Gamble, Intuit and Best Buy include customers directly in the development process via Internet based tools such as blogs, forums and rapid experimentation beta participation.

The message is clear – to accelerate; re-design your organization for speed. Just as one should not attempt to turn a river barge into a ski boat, neither should you invest in accelerating a large, vertically-structured organization. Overcoming the inherent "speed" limitations of centralized control and specialization is not possible. Flatter, multi-functional, team-based organizations provide the architecture that enables locally informed, quick decision making.

4. **Pursue process excellence and development as avidly as product or service development.**

Speed is a result of what you do *and* how you do it. Stupid is using the same process while expecting a different result. While far less sexy than a new product effort, process improvements provide tremendous leverage. A single process improvement ripples across the entire service delivery or production process. Cloud computing harnesses this by centralizing software updates onto the "cloud" server versus having each IT department implement them locally.

Consider the competitive advantage Toyota created by changing from a traditional hose-based paint supply to canister based painting machines[ii]. In 2004, a car body took 10 hours for robots to paint a car with the paint supplied from hoses from storage tanks. "If we were painting a car red, before we could paint the next car white, we had to stop, flush the red paint out of the lines and the applicator tip, and reload the next color," said Chad Buckner, paint department engineer at their Georgetown facility. Georgetown literally threw away 30% of the pricey car paint, cleaning it out of equipment and supply hoses when switching colors.

Now, each painting robot uses a paint cylinder the size of a large water bottle. A whirling disk at the end of the robot arm flings out a mist of top-coat paint. When a car is painted the paint cartridge is set back down, and a freshly filled cartridge is selected by each robot. There are no more hoses to flush or clean between cars. Cars don't need to be scheduled by color--a system that saves paint but causes constant delays. Savings per car is 2 hours. Paint waste has dropped

to near zero with a 30% reduction in overall paint consumption.

The benefits extend beyond just painting. Toyota buys less cleaning solvent and has dramatically reduced disposal costs for both. Together with new programming to make the robots paint more quickly, Buckner's group has increased the efficiency of its car-wash-sized paint booths from 33 cars an hour to 50. "We're getting the same volume with two booths that we used to get with three," Buckner says. "So we shut down one of the booths." If you want to trim your energy bill, try unplugging an oven big enough to bake 25 cars.

Why don't organizations pay more attention to process? Four reasons stand out. First, process, particularly in knowledge work, is invisible. We talk can complain the problems in any process for hours but until we map it so that we can agree on how it operates, little can be done.

Second, significant process improvements take time to identify, design and implement. Instant results are rare and productivity declines until the new process change requirements are sorted out. For example, having a group of employees assess the process removes them from their normal work. In addition, it takes time and resources to design, document and teach the new process. This "worse before better" performance pattern conflicts with the quick fix bias many have. Thus leaders actively address small problems or symptoms while neglecting the underlying process problems.

The third reason is embodied in the old management axiom that what you measure is what people pay attention to. The majority of performance metrics focus on end results or outputs such as sales, units, etc. While these measures tell us what we've accomplished, they provide little insight into how we did it. When we lack and/or don't use process measures as rigorously as result measures, people don't pay much attention to improving it.

The fourth reason builds from the second. We are biased to measuring that which lends itself to easy and precise measurement. Determining the actual cost is far easier than the steps which create cost. We act like the drunk who only looks for his keys under the lamp post because that is where the light shines. Most organizations confine process measures to the tangible, linear work processes such as found in manufacturing. These processes lend themselves to precise measurement compared to complex, non-linear knowledge work found in design engineering, marketing or sales. The paradox is that manufacturing and other tangible process represent a much smaller percentage of value creation.

The advantage of FCT is that time applies to all work. You can measure how long it takes to define the user interface for a new software program. We can see the reduction in engineering time when re-use is high. This doesn't mean that increased elapsed time will specifically define the cause or that less time is always better. What it does is provide is a starting point for inquiry that can drive cycle time improvement into business discussions.

Measures are just the tip of the iceberg. Making process improvement routine requires improvement goals, dedicated time, appropriate rewards, tools and skills to do it. Simple as this sounds, focusing on the "what" is so natural that it takes effort to shift attention to the "how." Until leaders actively inquire into underlying process issues, people will take a wait and see posture.

As noted earlier, mapping is the best approach for improving processes. Besides making the process visible, it's a great social tool to unfreeze change. When a team collectively maps a potential improvement area, it generates a common understanding of the current issues and approach. The increased awareness helps build momentum for change. To capture that momentum and turn mapping insights into results requires process champions.

Process champions own the responsibility and accountability for improving time and customer value for specific processes. In some cases such as product development, these roles may be permanent whereas other times, the process champion is a temporal assignment. Whenever possible, you'll get results far more rapidly if the process champion's efforts are tied to specific projects. When process improvement is a "staff function" versus an integral business process, it lags.

Process champions do not work alone. They must involve those intimately familiar with the process in the diagnostic and improvement effort across boundaries. A favorite tactic uses this enlarged group to create two additional maps. FCT leaders typically create a moderately detailed map of the current process followed by a higher level map of the proposed new approach with a focus on key interdependencies and implementation issues.

There is not space in this article to detail process design methodologies. Experience shows that using a professional process facilitator for the map building jump starts people's thinking and removes defensiveness. People know quite a bit about process development but devote so little time to it that they get rusty. Additionally, most process improvement processes such as Six Sigma, Designing for Manufacturability and Total Quality Management were developed in manufacturing and need to be tuned for knowledge work.

5. Set "stretch" cycle time goals and publicly measure progress.

FCT goals should target a 40-60% improvement in cycle time. You want the goal to have enough stretch to push people beyond just capturing the low hanging fruit. Merely working harder within the existing process can reduce cycle time by 20-30%. When management sets a more aggressive goal, it signals that everyone must consider new ways of working in order to achieve the goal. This stimulates learning a new level of discussion.

You can expect people to respond to stretch goals with skepticism. Their response is entirely rational since they are being asked to make dramatic improvements without knowing exactly how they'll do it. For this reason, it's absolutely essential that leaders demonstrate their commitment by supporting these efforts through time and resources. This leads to how much can you do this by self-medication versus engaging outside support.

Done well, defined as with consistent leadership and support, internal efforts can be very effective. Internal efforts do not need to educate outsiders regarding how the business works, who the key players are and the myriad of specifics that determine speed. Many argue that the ownership for results is greater when done internal. Our experience is that is a two-edge sword. We've seen "cultural fit" often subverts making tough choices that require more change with which people are initially comfortable. Internal efforts struggle to confront a firm's own DNA. Just as evolution happens over centuries rather than months, changing DNA from within is very difficult.

Far more internal efforts are started than completed. Cost competitiveness requirements have leaned out many firms such that they barely have enough resources to cope with today's workload. Adding another task on an already overloaded plate will not speed up your firm but slow it down further. More importantly, it destroys any credibility the cycle time reduction effort may have. The paradox is that companies are often slow because they have more work in play than they have capacity to do it yet these are the ones who are most prone to medicate from within.

External support opens you to experience beyond your firm. Plus, since it's incremental cost, gaining approval flushes out whether there is true commitment to the effort. External resourcing requires that you teach them about your organization. And you can be sure that many of their recommendations will be obvious, perhaps even ones that have been suggested and tried in the past. What you really want to focus them on is implementation support. Identifying time savings is easy compared to changing process, structures and ultimately the behaviors to achieve them.

As a first step, set a cycle time reduction goal. To set a goal you define the beginning and end of the business cycle you want to accelerate. This can be more difficult than it appears since defining what and when a customer's need first exists is not easy or precise. Recognize that beginning and end points are inherently arbitrary choices. One can always mount a rational argument for any point so don't make this a research project. Select points that make sense for your industry and organization. If there are any sub-cycles that you will be focusing on such as market requirement definitions or clinical studies, define that cycle as well. Make sure the goals you set provide competitive advantage against the best in your industry. Their current capability represents the minimum target you can set since they won't be standing still. Only if the gap between you and them is enormous should an interim goal be selected.

Hewlett Packard has used as their starting point when applicable technology exists within H-P Labs. Johnson & Johnson has used worldwide deployment of a new product as the end of the cycle. The key is to pick points that are sufficiently upstream to capture defining the customer's requirement and extend far enough to capture the complete customer experience after introduction. Using points that already exist in your firm's lexicon will jump-start the process versus creating new terms.

Once defined, benchmark a few recent efforts. For example, pick the last three products in a given area and see how long they took to develop. Below is an example from a medical products company that illustrates the typical issues you can expect to find.

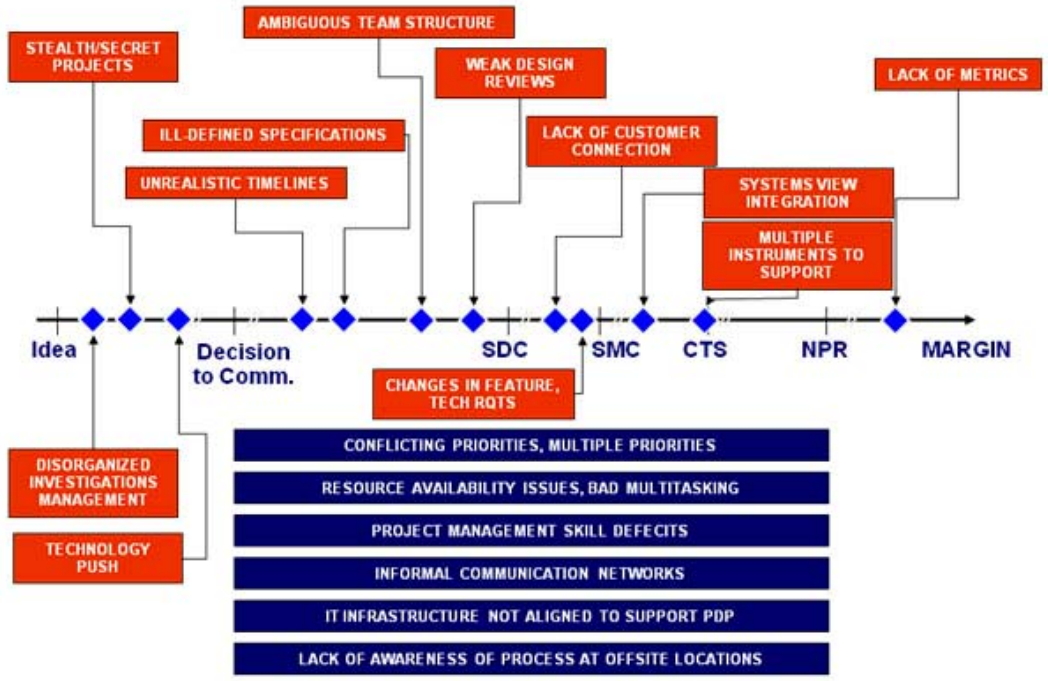

Figure 3

Broadly display your goals and the gap between current cycle time measures. Be prepared to shower recognition on those that join your quest and contribute questions as well as answers. Research demonstrates that major breakthroughs frequently come from people who historically are familiar but less intimately involved with the specific process.

One cannot understate the importance of aggressive FCT goals and publicly displayed measurements. Perhaps a colleague of mine describes this best using what he calls Management's Apparent Interest Index. Employees throughout an organization take action based on what they believe interests management. If management frequently discusses FCT, sets clear goals and consistently updates public measures, employees will recognize and act on management's attention. Without these factors, management's apparent interest will not be visible.

6. Create an environment which stimulates and rewards continuous learning and action.

"It's not what you don't know that hurts you, it's what you know that just ain't so."

Satchel Paige

Increasing the pace of organizational learning is the unsung hero of a good FCT strategy. While no longer new, organizational learning deserves special attention. This is particularly true as the proportion of knowledge work continues to increase.

Consider the following chart. For the moment, assume that in any industry, a firm's stock of applied knowledge is a relative measure of their ability to compete. Firm A currently has a larger stock of applied knowledge than Firm B but it learns at a slower rate. Although B's knowledge stock is lower than A's it quickly catches up, passes A and continues to extend its stock of applied knowledge. One might argue that this is exactly how competitors and even societies overtake existing leaders.

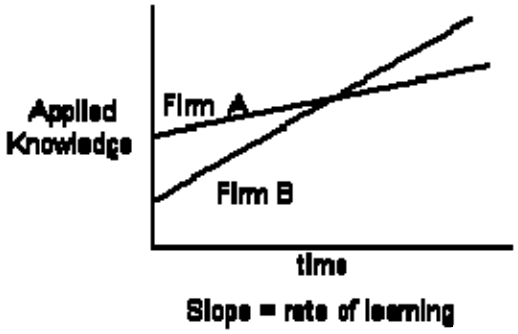

Figure 4

Without ongoing learning, acceleration is a one-time event. When leaders embrace organizational learning as a strategic objective, it becomes ongoing. The executive's job is to define a learning strategy and system architecture which fosters learning across the firm and extends into their ecosystem.

Organizational learning is the identification, testing and distribution of relevant knowledge that is necessary to deliver customer value. The first step is to identify what is the most important knowledge for creating customer value. Increasingly, FCT leaders are engaging customers earlier and more deeply to answer this question. Customer experience research such as ethnographic studies that used to be confined to design consultancies such as IDEO, Frog and JUMP is now being used by many firms. Leaders are using these approaches to broaden the depth and breadth of factors they consider when defining customer value requirements. They are also broadening the range of people that engage with such research to spread knowledge more rapidly.

People mistakenly assume that what works for personal learning automatically transfers to organizational learning. Organizational learning has two critical differences. First, organization learning adds value when it’s aligned to the firm’s purpose and operating objectives. Second, individual learning is relatively personal whereas organizational learning is public. Most of us learn more from our mistakes than our successes and bringing mistakes out into the open is a tough task.

Consider the following. Organizations reward competence which drives people to speak out when they know the right answer. By definition learning is the process of gaining competence. If the norms of our organizations reward these people who demonstrate competence, it would be wise to be quiet if one didn't know something. If people cannot be public about what they don't know, how can we expect them to learn? The logic of this model is as frightening as it is clear. FCT organizations and leaders start by rewarding the right questions as much as they do the right answer.

A further dilemma is existing knowledge blocks further learning. Established practices and assumptions become deeply entrenched and nearly invisible as they gain impact. Like a flywheel, existing knowledge supports current direction and momentum but acts as a barrier to thinking and acting differently. The older the organization, the more leaders must help others "unlearn" in order to learn. This starts with challenging existing beliefs about current practices, technologies as well as relationships.

Designing an organizational learning system starts with identifying the key competencies that will deliver outstanding speed. This includes managerial as well as technical skills. Once identified, compare the competencies required to current capabilities. The resulting gaps should become the focus of the learning system. For each gap, set an aggressive target. When the gap between current conditions and goals is sufficiently large, it stimulates learning. As noted earlier, this is why setting aggressive FCT goals is important. Goals of 50% improvement are not achievable without doing something significantly different.

Since organizational learning is a social activity, it benefits from the multi-functional architecture described earlier. This structure creates forums where ideas and experience can be exchanged across boundaries. When combined with a clear team goal and rewards, differences tend to surface innovative ideas that functional organizations often evades or ignores. Learning inevitably results from these interactions plus team members gain invaluable experience in the process of organizational learning.

When attacking time, many use a multi-functional team to manage to drive the overall acceleration effort such as a steering Committee. This group helps connect and move knowledge gained in one discipline or location to others. Additionally, it serves as a central measurement point that includes making local learning visible to others.
In summary, the challenge of organization learning is that it's what many people refer to as a "soft" subject and thus is not as easy to grasp or implement. It's discussed frequently in academic settings but rarely defined, structured or consistently addressed by leaders. There are no hard and fast templates to follow. Leading FCT competitors differentiate themselves by the attention and focus they bring to organizational learning.

Summary

If accelerating past the competition were easy, there would be little value. FCT requires a systemic integration of new values, structures, and rewards how you run your business. Leaders need to set the pace as they redesign how work is achieved. Merely pushing for faster action is not the answer. First, people will make the same mistakes they always have, only quicker. Second, management will rapidly burn out the organization's most important resource: people. An image employees often have when they first hear about reduced cycle time is a cardiac stress test. They equate reducing cycle time to speeding up the organizational treadmill. Regrettably, they are often correct.

The shift to an open learning organization requires time and effort. New values and structures take hold only as old ones are retired. FCT yields a sustainable competitive advantage because it is woven into the cultural fabric of the entire organization's value delivery process. Any

organization which couples world-class quality with a FCT capability will have a competitive edge.

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[i] Meyer, Christopher, *Fast Cycle Time,* Free Press, 1992.

[ii] Paraphrased from Charles Fishman, "No Satisfaction at Toyota," Fast Company, Dec 19, 2007, http://www.fastcompany.com/magazine/111/open_no-satisfaction.html