

Preparing a Company for Growth

The father of modern organizational management and preeminent business philosopher, Peter Drucker, has been speaking and writing about the importance of organizational culture for more than 60 years. Unfortunately, many U.S. companies ignored Drucker's advice, instead claiming that to remain competitive, they must move the company's manufacturing operations overseas.



A dark side, however, is emerging from the “throw up your hands and give in” overseas business plan.

For example, China's economy is overheating and shortages are beginning to form in property, skilled labor, raw materials, power generation, and other large-scale manufacturing infrastructure demands.

Increasingly, company leaders are seeking ways to make full use of employee talent and align corporate goals with individual activity to profitably grow businesses within the U.S. What many of these leaders are now discovering, is that Drucker's advice has been right on the mark all along.

Growth-oriented culture

The savvy business leaders are coming to a realization that simply moving manufacturing overseas may not be the best long-term solution for the company. They are beginning to appreciate that in order to capitalize on today's knowledge-based business environment, they must encourage innovation and be able to effectively and efficiently implement innovation. They also are learning that in order to foster and take advantage of innovation, it will likely require a dramatic shift in the company's underlying culture.

It's being given a lot of different titles, but what's common about what business leaders are hoping to create is a growth-oriented business culture that includes:

- Leadership, teamwork, and communications
- Profit
- Innovation
- Automation
- Implementation excellence

Infusing a growth-oriented culture within a company requires more than simply declaring it; it takes a lot of planning and a concentrated effort commencing at the boardroom.

But be clear about one thing, a key element of a growth-oriented culture is an unwavering focus to grow profits along with everything else, something every shareholder wants to hear.

Planning for growth requires establishing trust among all departments and employees that everyone will deliver on what's needed.

It means taking a risk and committing to results that you know you can't achieve without help. It means that maximizing growth requires that engineering, manufacturing, distribution, marketing, and sales perform as a team.

But that is the very climate many companies are unable to create and sustain. While many organizations are great at managing functional activities and controlling costs, they do not inspire great teamwork across functional lines.

Does that mean most companies are doomed or shouldn't even try? Not at all. It merely serves to remind us that developing a company-wide, growth-oriented culture requires fostering a culture that encourages acceptance of change and focuses on competition.

Standardized processes

Companies have employed benchmarking, just-in-time management, total quality management, quality circles, ISO certification, Six Sigma, lean enterprise/manufacturing, or any of the 30-odd programmes du jour that have caught the gaze of the business world over the past three decades. Each has delivered some success, but none has proven to be a universal cure-all.

What is working is a melding of multiple programs into a solution that becomes greater than the sum of its parts.

Among the teachings of lean manufacturing is that processes must be standardized and waste must be banished.

Among Six-Sigma's teaching is that data must be collected, plotted, and analyzed; changes made to the process; and these techniques repeated over-and-over until the desired level of quality is achieved.

Individually, lean manufacturing and Six Sigma have shortcomings.

Lean manufacturing insists that processes be standardized;

yet a standardized process doesn't ensure you're producing the highest quality product. It does however, produce repeatable results and validates that the process is in-control.

Once a process is in-control, Six Sigma techniques become highly effective in identifying the changes necessary to improve the process.

It's this combining of techniques that permits numbers, not emotions, to do the talking. When emotions are removed, a culture of teamwork, acceptance, and profitable innovation begins to emerge.

A wise use of Six Sigma

Six-Sigma has been around for years and company leaders tout much of their company's success to it.

Still, many business leaders fail to recognize that you don't "plug" Six Sigma into a company; it must be integrated into an organization from top-to-bottom and side-to-side.

Within a growth-oriented culture, Six Sigma provides employees a sense of urgency with an emphasis on collecting, analyzing, and quantifying downtime and waste stream numbers as well as the tools to compare opposite sets of numbers (e.g., production quality verses customer complaints).

The benefit of comparing information opposites is it helps avoid the pitfall of improving one metric at the expense of a different metric. For example, increasing a product's dryness may improve the product's quality, but it also consumes more fuel. The analysis must determine if the improved quality reduces customer complaints sufficiently to offset the added fuel costs.

Because profit is a key element in a company's growth-oriented culture, it helps anchor the Six Sigma process to ensure everything is considered and included when analyzing potential improvements.

Automation's role

Separately, much information is available about the individual elements that create a growth-oriented business culture with one exception—the role of automation.

Within the manufacturing unit of a growth-oriented business culture, automation provides the platform on which innovation is most often implemented.

Features, benefits, and capabilities provided by today's digital automation systems are closing the gap between what's provided by automation systems and information technology (IT) departments.

For example, today's automation systems provide robust and easy to use data collection tools with the ability to massage data, change analysis formats, and assist process engineers understand realtime process dynamics.

Additionally, today's automation systems include innovative solution alternatives previously only available in expensive, difficult to engineer advanced control applications.

One example is the ease with which Emerson's DeltaV digital automation system helped eliminate temperature overshoot in a multizone carpet-drying oven.

Changing carpet styles often requires large changes to the carpet drying oven temperature controllers, sometimes up to 100 degrees Fahrenheit.

Traditionally, temperature control was achieved using proportional integral derivative (PID) control loops. During a carpet style change, the first zone of the oven frequently experiences significant temperature overshoot that requires slowing the oven's production rate for 10 minutes or more.

Because DeltaV includes autotuning fuzzy logic control as part of its standard function block library, it was easy and cost effective to reconfigure and apply the fuzzy logic temperature control solution. And, because DeltaV supports online changes, the new controls were implemented without interrupting production.

With the new controls implemented, a carpet style change requiring an 80 degree Fahrenheit temperature rise was introduced. Zone One's temperature accelerated toward the new target, as it neared the target temperature, the new control strategy rapidly cut back Zone One's fuel flow, causing the temperature to achieve the new target without overshooting. This resulted in remarkable improvements in product quality and production throughput.

Shaw Industries Group encourages employee innovation when it says, "If you are doing things the same way today you did two years ago, you're probably doing it wrong."

The role of automation is to provide the platform on which today's innovative idea can become reality.

Taking it to the bank

Theories are interesting, but at the end of the day business leaders demand quantified results.

Consider these:

- \$18,000 per month in reduced product waste.
- Twenty percent higher production capacity.
- Thirty-eight percent reduced product variability.
- \$50,000 per month reduced outsourcing costs.
- Twenty percent reduced product cost per square yard.
- Four month payback on capital expenditure.

The difference between companies that are always a step or two behind their competition and those that are getting better each and every day is the presence of a growth-oriented business culture. Those are the companies that are already reaping the benefits of preparing their companies to grow.

Francisco Campa heads up engineering at Shaw Industries Group, www.shawfloors.com, Dalton, Ga., a subsidiary of Berkshire Hathaway, www.berkshirehathaway.com, Omaha, Neb. Write to him at francisco.campa@shawinc.com.