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Cultural Learning's & Six Sigma

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Abstract

This paper discusses the relationship between organizational culture and the business success delivered by Six Sigma programs. It addresses the following areas:-

- A culture of continuous improvement
- The necessary conditions for the creation of a culture of continuous Improvement
- Project based Six Sigma versus everyday application
- Requirements on leaders

Background

Since it's creation in the late in the late 1980's by Motorola Six Sigma has continued to increase in popularity. It has evolved away from its traditional manufacturing background with companies applying it in all areas of business including finance, marketing and sales as well as healthcare. A 2004 survey conducted by Quality Digest indicates that there has been up to a 5% increase in the use of Six Sigma in non manufacturing sectors since 2002. For example we know that the major four banks in Australia have embarked on Six Sigma programs as well as some of the second tier banks, GE capital, Australia Post to name a few in the non manufacturing sector.

The public relations spin around Six Sigma is mixed with many organizations failing to exploit the potential bottom line benefits that Six Sigma can deliver. Perhaps the motivation for embarking on a Six Sigma program has more to do with who else is doing it than whether it is the right thing for you to do. As one Telco exec commented "it's useful if you are producing refrigerators but not if you are trying to run an IT&T company" I think he has a great deal to learn.

Like TQM, Benchmarking, Re-engineering or implementing SAP or People Soft in your organization Six Sigma is nothing more than another change management program, and if you want to ensure its success then you have to treat it as such.

To begin with you need to know the environment in which you are implementing Six Sigma. More specifically you need to understand the existing organizational culture and what needs to be done in order to ensure the culture will reinforce Six Sigma.

Understanding organizational culture then becomes the key factor to be considered when attempting to implement Six Sigma.

In this paper I will discuss the relevant use of a number of proven models for implementing change and creating an organizational culture supportive of Six Sigma.

Specifically I will cover:

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Kotter's recipe for change management, Edgar Schein's understanding of how leaders embed and transmit culture and Deming's 14 prescriptive points on what a managers role should be.

What is culture and why is it so important?

Margaret Mead defined culture as the way a group prefers to behave, i.e., the practices that are common to the members of the group. That definition works for any culture, including company cultures. The trick for organizations is to make sure that their behavioural preferences are compatible with what is necessary to deliver the business results, to help the group survive and thrive.

The corporate graveyard is full of businesses that did not have the "right" culture to support long term survival. A great many of them experienced short term success but weren't able to change as their environment changed. While there are lots of ways to succeed over the short term, long term success requires attention to the organization's practices around how people relate to each other, how they relate to outsiders such as customers, vendors and business partners, and what they see as important about their work.

We often describe cultures by using "value labels" such as Trust, Openness, Respect, Customer Focus, and Responsibility. Such labels help organizations communicate to their employees, their customers, and others. But labels are meaningless unless they are backed up by the day to day behaviour of people throughout the organization. It isn't what we say we're like, it's what we actually do that makes a difference. I'll come back to this later.

Despite this, organizations sometimes believe they can create culture change simply by communicating their values, "***we are a Six Sigma organization***" hoping that will somehow bring the company's day to day practices in line with those value labels. ***It does not happen*** — except perhaps in the rare instances in which the organization is already behaving in a way that's very close to the communicated values. If for example you already have a strong culture of continuous improvement.

The way to bring about genuine change in culture requires the following steps:

1. Determine the company's business drivers – what do we want to achieve?
2. Determine the required culture, given the company's business drivers – how will we work together in order to make this happen?
3. Find out what common practices exist now – how do we do things now?
4. Implement programs to make the transition from the current cultural practices to the required culture – known as the Six Sigma program or what ever.

If you consider the 4 points above and use GE as an example you could analyse their response thus:

1. What do we want to achieve? Be #1 or #2 in all our businesses or get out of them.

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2. How will we work together in order to make this happen? Through team work in a “boundaryless” fashion.
3. How do we do things now? In silo’s where we don’t share learning.
4. Implement programs to make the transition from the current cultural practices to the required culture – Work out Program. See figure 1

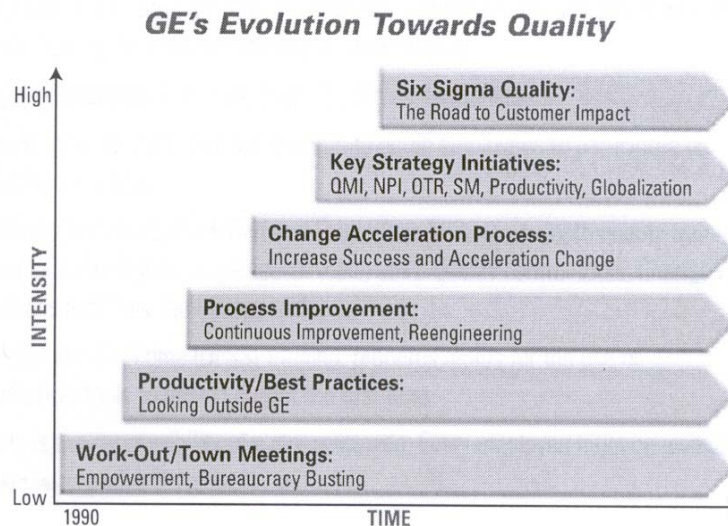


Figure 1: GE's Evolution Towards Quality

You can see that GE's progression towards Six Sigma was anchored in a strong foundation of continuous improvement. All employees were engaged in the effort via their Work-Out Program which was used to introduce continuous improvement and team methods across the GE conglomerate. This program was not an optional exercise, it was mandatory and all managers had better be involved otherwise they wouldn't get a second chance. GE's legendary ability to follow through any initiative they start, a hallmark of their culture, is what helped create the momentum for the change.

Leading the Change

In implementing a change management program it is useful to consider the work of John Kotter from his book *Leading Change*. Kotter focuses on how you implement change and he has outlined 8 steps for success. They are:

1. Establish & create sense of urgency.
2. Create a powerful coalition.
3. Develop both the guiding vision & the strategy.
4. Communicate the vision.
5. Empower organizational action.
6. Generate short-term wins.
7. Consolidate improvements.
8. Anchor new vision & strategy in organizational culture.

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Step 1 is about creating a need that's so persuasive that everyone understands the imperative to take some form of action and that there is no alternative but to take some action.

Step 2 is making sure you have the right people leading it. It should be the senior management team because these are the people with the means and authority to make things happen. In GE's case it was always Jack Welch. His successor continues the program today.

Step 5 is about understanding the existing enabling and restraining forces and dealing with them. Force field analysis requires that you look at the enabling forces, those that motivate you to take some action and restraining forces, those that hinder your progress or stop you from achieving your goals. The first step is always to remove the restraining forces.

Step 6 is showing progress because nothing succeeds like success. When people see that their actions are leading to tangible business results they feel motivated to do more since their behaviour is being reinforced.

Step 7 is standardizing new processes the C in DMAIC.

Step 8 is making sure your performance management processes and other key culture creation and embedding mechanisms support the change. On this latter point I believe it's beneficial to understand the processes for how this takes place, and this is where we learn from the work of Edgar Schein

Edgar Schein has been at the forefront of research into corporate culture for over 30 years. He is a noted MIT business professor and author of many works on the topic of corporate culture.

According to Schein the primary role of a leader is the creation, communication and maintenance of an organization's culture. Therefore if you want Six Sigma to succeed in your organization it must have a culture that supports it.

Schein describes (table 1) a number of mechanisms by which leaders create and embed culture. The most important of these mechanisms are the primary mechanisms - the leader's own behaviour, whether they "walk the talk" or not. It's what leaders' do that gets noticed. While the secondary mechanisms are important they only work if they are consistent with the primary mechanisms.

Necessary conditions

We come to the question of what are the necessary conditions for the creation of a culture of continuous improvement.

To answer this question I would like to refer to the thoughts of one of the leading proponents of the whole continuous improvement movement W.E.Deming. While starting off his career as a statistician and consultant in statistical process control he

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quickly came to see that the major impediment to quality was not the use of data and statistics but management.

Deming listed 14 key principles (table 2) managers should adhere to in order to transform their businesses. What is important to note is that if you look closely at what Deming writes he is actually focusing on culture. While training may be a sufficient condition for the creation of a culture of continuous improvement, leadership is a necessary one. You can't create a culture of continuous improvement without the support of an organization's leaders. This is highlighted in at least half of the point listed below.

When Deming said put everybody in the company to work on the accomplishment of the transformation he wasn't joking. In fact it was always a point of despair with Deming because he found that the Japanese took him literally and the occidentals took him figuratively.

When Deming talks about constancy of purpose, adopting the new philosophy, and putting everyone in the company to accomplish the transformation he is talking about culture; and you cannot talk culture without leadership.

It is a requirement then, that your leaders must be involved in the process.

Six Sigma cannot be a "bolt on" program (table 3) or seen as an addition to what we do around here. It needs to become part of "the way we do things around here". One would expect to see charts on walls depicting customer and supplier relationships, flow charts of processes, capability charts etc etc. The language being used should also reflect this "...show me the data".

If you want a great case study into where Six Sigma has taken root it's at GE. Under Jack Welch's stewardship Six Sigma was implemented across all businesses not just the ones that made refrigerators. The success of Six Sigma at GE was built upon a preexisting foundation of continuous improvement. Many companies have tried to copy GE without understanding this. You cannot expect results from Six Sigma by blindly copying GE or any other company. You can however learn from them.

Leadership then is a necessary condition in the creation of a culture of continuous improvement. For Six Sigma to succeed it cannot become something that is delegated to someone, it needs to be reinforced – not only by the senior leadership of an organisation, but by every manager in the organisation.

Requirements on leaders

As a takeaway the leaders in your organisation should concentrate on the following:

The creation of space – Do not ignore the need for physical space – people need rooms to meet and work together, to cooperate and collaborate – many modern office environments are woefully under-equipped. Walls need to be available for the

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physical artifacts of a continuous improvement culture - charts and visible indicators of performance.

Permission – People need to feel they are allowed to cooperate and collaborate, to traverse organisational boundaries without asking for permission. In actual fact they must also understand that it is a requirement of their roles.

Time – Last but not least people need time this must be in a practical form. That is a code in the time reporting system or an allocated session every day or week. Google give their people one day a week for innovation and improvement activities. When I consulted to an IT company in Australia in the early 1990's every employee, all 800 of them, had a time cost code they could allocate to continuous improvement activities, and they were expected to use it.

Conclusion

The fact is that Six Sigma is applicable to any type of industry – anywhere that waste, error and rework – the unholy trinity exists, and in any organisation that is committed to continuously improving every aspect of its business.

The successful implementation of Six Sigma is easy as long as you have an existing culture that reinforces continuous improvement. To understand what culture you have you need to embark on an audit first. Positive indicators would include a healthy respect for team work, an understanding of the value of customer and supplier relations – both internal and external, and open communication.

Understanding the pivotal role that leaders play in the creation and maintenance of the required culture is more important in ensuring success than training an extra 100 blackbelts.

References

- Edgar Schein - Organisational Culture & Leadership, Jossey Bass 2004.*
- Creating a Six Sigma Organisation – Corporate Leadership Council 2005.*
- John P Kotter – Leading Change. Harvard Business School Press. 1996.*
- W.E.Deming – Out of the crisis. MIT Press 2000.*

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Table 1: How Leaders Embed Culture

<p>Primary embedding mechanisms</p> <ol style="list-style-type: none"> 1. What we pay attention to, measure and control 2. Reactions to critical incidents and org. crises 3. Deliberate role modeling, teaching & coaching 4. Criteria for allocation of rewards and status 5. Criteria for recruitment, selection, promotion, retirement and excommunication
<p>Secondary articulation and reinforcement mechanisms</p> <ol style="list-style-type: none"> 1. Organizational structure 2. Systems & Procedures 3. Environment 4. Stories and legends about events and people. 5. Formal statements (e.g. Vision and mission etc.)

Table 2: Deming's 14 points for managers

<p>1. Create constancy of purpose toward improvement of product and service, with the aim to become competitive and to stay in business, and to provide jobs.</p>	<p>Establishing a vision</p>
<p>2. Adopt the new philosophy. Management must awaken to the challenge, must learn their responsibilities, and take on leadership for change.</p>	<p>Lead the change</p>
<p>3. Cease dependence on inspection to achieve quality. Eliminate the need for inspection on a mass basis by building quality into the product in the first place</p>	<p>Speaks for itself</p>
<p>4. End the practice of awarding business on the basis of price tag. Instead, minimize total cost. Move toward a single supplier for any one item, on a long-term relationship of loyalty and trust.</p>	<p>Work with your suppliers and reduce variation. Establish "partnerships"</p>
<p>5. Improve constantly and forever the system of production and service, to improve quality and productivity, and thus constantly decrease costs.</p>	<p>Continuous improvement.</p>
<p>6. Institute training on the job.</p>	<p>Speaks for itself</p>

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7. Institute leadership. The aim of supervision should be to help people to do a better job.	Ditto.....
8. Drive out fear, so that everyone may work effectively for the company.	Make it possible for people to convey accurate information, not information that is “massaged”
9. Break down barriers between departments. People in research, design, sales, and production must work as a team, to foresee problems of production and in use that may be encountered with the product or service.	GE’s boundaryless organization, remove the SILO effect.
10. Eliminate slogans, exhortations, and targets for the work force asking for zero defects and new levels of productivity. Substitute leadership.	This is about focusing on the Primary leadership mechanisms
11. Remove barriers that rob the hourly worker of his right to pride of workmanship.	Have effective and accurate performance management methods
12. Remove barriers that rob people in management and in engineering of their right to pride of workmanship. This means, inter alia, abolishment of the annual or merit rating and of management by objective.	Have effective and accurate performance management methods
13. Institute a vigorous program of education and self-improvement.	Self development – not specifically job related.
14. Put everybody in the company to work to accomplish the transformation. The transformation is everybody's job.	Continuous improvement is not an option it’s the way we do things around here.....CULTURE

Table 3 Comparison of Program Approach to Cultural Approach

	Six Sigma Program Approach	Culture of Continuous Improvement
Who is involved?	Black Belts, Green Belts	Everyone (especially people performing processes)
Typical Project Size	Medium – Large (search for the silver bullet)	Small, everyday (it all adds up)
Typical Focus	Solving High Profile Problems	Improving Processes
Metrics	Program/Projects	Business
Longevity	Ziggy 6σ to Sol- 5 nines	Sustainable e.g. Toyota