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Developing systemic leadership in the post Six Sigma world

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Abstract

Achieving world class competitiveness is many organisations' goal, but it cannot be achieved by piecemeal improvements, no matter how effective individual projects may be. Sustainable competitiveness requires managing the organisation as a dynamic system, which Dr Deming defined as 'a network of interdependent components that work together to try to accomplish the aim of the system'¹. Successful companies, such as Toyota, are a manifestation of this concept. Achieving this level of performance requires a method for whole system transformation.

PMI's systemic leadership underpins this method. It creates complementary systems and processes to enable exemplary management of the organisation as well as the capability of improving it, in the form of both routine and step-change activities This paper presents a model for building systemic leadership, with interlocking workstreams and processes to develop the people to manage the daily work, and implement improvements. Drawing upon their extensive experience, the authors illustrate each aspect of the model so that delegates can relate them to their own circumstances.

PMI has spent more than 20 years working with Dr Deming's approach in business and quality improvement. We have applied our systemic leadership model at global and local scales, integrating the concepts of strategic leadership with the practicalities of supporting key improvement projects and training internal expertise in process management and improvement techniques.

Keywords: system, improvement, transformation, Deming, leadership

¹ W Edwards Deming, *The New Economics for Industry, Government, Education*, Second Edition, The MIT Press, 2000, p-50

Purpose of this paper

The paper presents PMI's strategic model that leaders can use to co-ordinate interlocking workstreams and processes to implement both routine and step-change improvements in the system for which they are responsible.

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1. The need for transformation of performance

Two key points illustrate the challenge to be addressed to by all managers:

1. Recent results from major auto companies demonstrate that top Japanese-owned manufacturers still improve faster than their western-owned competitors, in spite of years of high profile programmes in the West.
2. The universality of the need for improvement in the 21st Century. It is not only the auto industry that has to transform. Across all continents, all sectors, all sizes of organisation, there is now a recognition that service to customers, users or taxpayers must improve and efficiency levels addressed.

2. The value of a strategic system for transformation

Dr W Edwards Deming (1900-1993) defined a system as 'a network of interdependent components that work together to try to accomplish the aim of the system'. He spent his life teaching the philosophies and attitudes necessary to optimise an organisational system so that it would produce value for its customers and society. It is clearer than ever that he was right: it is necessary to manage the organisation as a dynamic system in order to achieve sustainable world-class competitiveness. Dr Deming left few clues, however, about how to apply his ideas; our models have been developed in over 20 years of practical application in systems of every type around the world.

Successful companies, such as Toyota, are a manifestation of the validity of the concept, working relentlessly on system optimisation for over 50 years, first in production, more recently in design and marketing. Few others approach their standards, and their recent results emphasise the gap. More than two decades of programmes in the West have generated local improvements, but few have created the radical transformation to match Toyota. Even the apparently obvious tactic of employing ex-Toyota managers will not necessarily produce transformation, as each case needs its own approach.

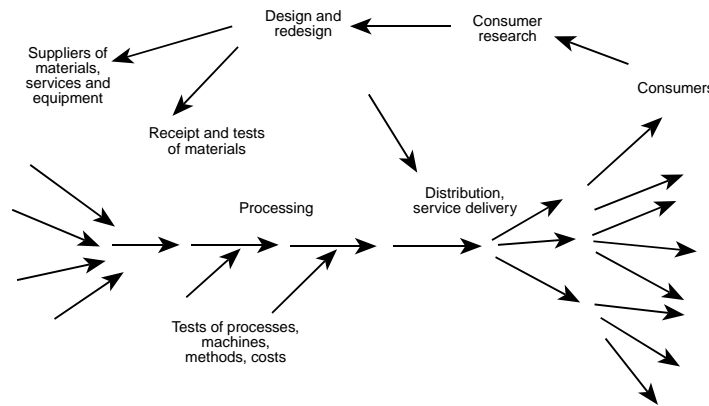
PMI's model for transformation is an enduring system that generates specific improvements and develops the underlying management and leadership approach.

We shall describe the components in section 4, but first let us examine the organisation as a system.

3. Understanding a system

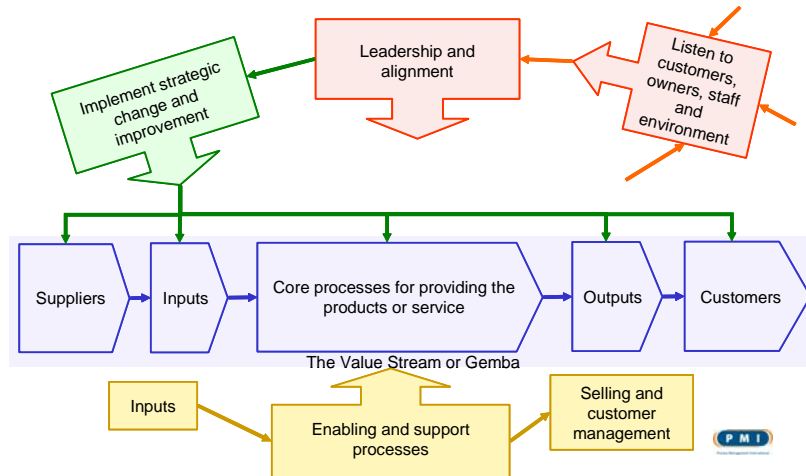
As Dr Deming often observed, the system is responsible for over 98% of the faults or problems seen by the user or customer. For many, this leaves a difficult question: what is a system? The answer is as universal as it sounds on first reading it, applying as much to a government as it does to a company, a sports club, or your own department.

Dr Deming’s manufacturing organisation as a system (1950)



This is a great concept with practical value, demonstrating where you work, and including people and processes excluded by an organisation chart. PMI’s adaptation of this model acts as a stimulant and template for understanding any system.

PMI’s model for representing an organisation as a system



Once you grasp the concept of your ‘workplace’ as a ‘system’, you can use the many principles of systemics to help you lead the improvement of the system’s efficiency, effectiveness or flexibility. Two spring to mind:

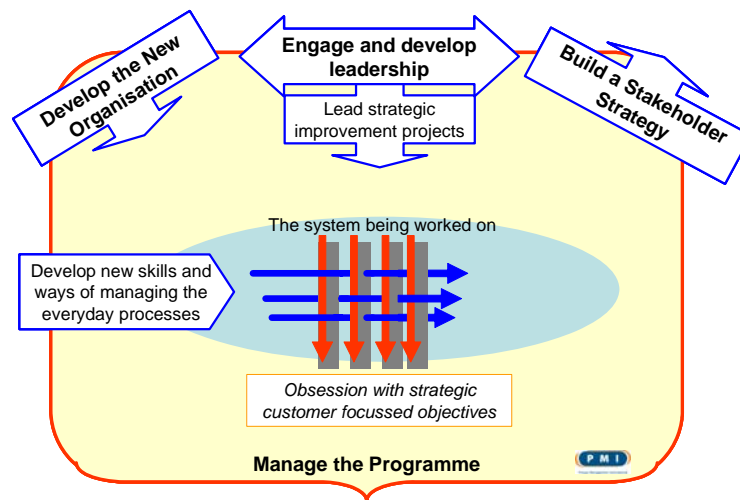
- The results you get are the consequence of the system. It’s doing the best it can! Hoping for improvement, or setting targets, will not lead to permanent improvement without applying a method for change.
- Cause and effect are separated in time and space. Actions you take will have consequences you may not be able to foresee. It therefore follows that small scale trials will reduce large scale risks.

4. A strategy as a system

A change strategy is a particular sort of a system; an interacting set of workstreams that are coordinated in order to create desired, permanent and self-sustaining change.

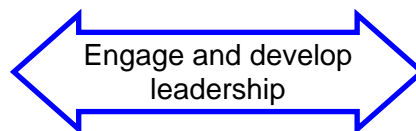
As an adaptation of Dr Deming’s definition of a system this means that all aspects of culture, theories, processes and tools that apply to ongoing service or production systems can also be applied to change strategies. This also implies that one should use system, process understanding, and improvement tools and approaches in the strategy. Learning from this approach to implementation will provide the foundations for using them in the ongoing system.

PMI’s System for continual transformation



Let us build up this system by examining the components, in the sequence which most easily allows you to develop it in stages, learning as you go. Given the inevitable uncertainties in system change, the more that can be tested prior to going public on a large scale, the more can be learned and therefore adjusted.

I. Engage and develop leadership



- **Determine the strategic direction**

The leadership team should consider their knowledge of their system and its environment and prospects, and create an initial system map. They should develop an informal statement for the purpose of the system, and a declaration of the future vision.

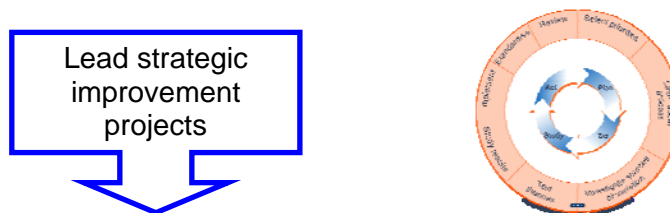
This will generate many ideas for research, data gathering and improvement.

You do not have to be looking at the whole organisation to do this work. Any department or function is best analysed as a system, and such understanding helps its leaders in every aspect of their jobs.

- **Develop improvement strategy, agree initial priorities**

Identify the three or four of the most upstream, causal, issues in the organisation’s system for initial projects. These will provide the basis for learning about the success factors in your culture. For more than a generation it has been demonstrated that the tools work when applied diligently in the right context and manner, but it does take experience in your organisation to understand the political and social factors critical to your success.

II. Launch and sponsor Improvement Projects



There are three aspects to be addressed if success is to be assured:

- **Laying the foundations.** Selecting the right sponsors, assigning the best managers as project leaders, arranging for skilled support and training in the methodology. Making sure there is a start-up budget, ensuring people will be made available. Generating an initial charter so that all concerned understand the scope and ambitions.
- **Launching the project.** Communication between sponsor and leader, preparation with the consultant, arrangements for the initial workshop with the team.
- **Leading the project work.** Ensuring a rigorous approach, attention to support, gateways and deliverables are all needed. Reviewing both progress towards the deliverables and the learning about the approach, generated by participants and all others affected.

III. Manage the stakeholders



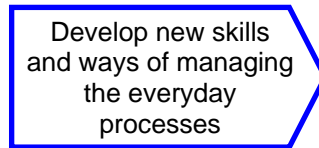
The road to system change and improvement is never smooth. Keep those around the system, the so-called Stakeholders, informed about what is intended, the impact it is likely to have, and the progress that is being made. The better prepared they are, the more support can be asked of them when unpleasant surprises emerge as they are bound to.

IV. Manage the programme



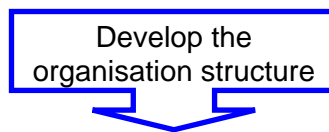
Whether you decide you need a team, or to do it yourself, someone needs to take on a coordinating role. They will need to arbitrate between competing demands for resource, ensure that learning is shared as it is generated, and success identified, acknowledged and celebrated.

V. Create process leadership



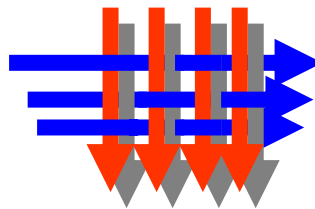
As the improvement projects develop their proposals for change it will become more and more apparent that ultimate success will lie in the implementation and ongoing management of the re-engineered processes. The leaders of those processes need to understand their roles and obligations in enabling the project teams to make rapid progress and then taking on the disciplined application of the tools and methods.

VI. Develop the organisation structure



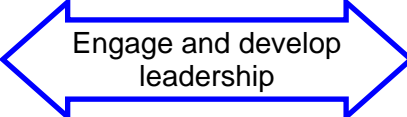
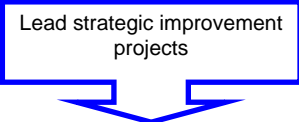


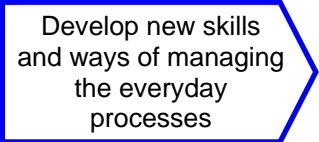
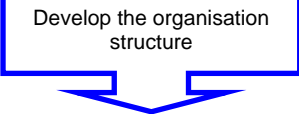
Since process change is continual, so too is organisational change. Processes not functions should determine roles and it is inevitable that current roles, responsibilities and reporting routes will be found wanting. The leadership team should keep the organisation chart under continual review, for the old hierarchies have many ways of resisting change.

VII. Summarising the strategic system

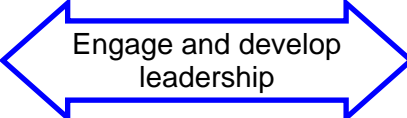
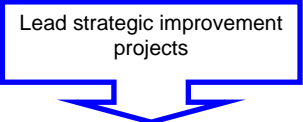


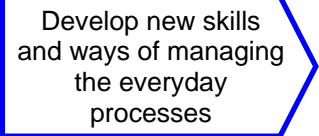
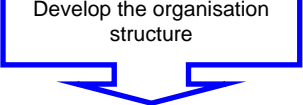


The elements of the model—the processes—must be woven into an interlocking, mutually supporting series of workstreams to create a system that will deliver the aim of transformed performance from the organisation.

PMI's model in action 1: across a regional subsidiary

Component	What they did
	<p>Leadership workshop to map the systems, understand the concepts, select priorities, identify projects' sponsors and leaders. Projects in Sales, admin, production and logistics.</p>
	<p>Prepare project charters, train leaders in depth, provide support for launch and review workshops, ensure rigorous reviews at agreed gateways.</p>
	<p>Communicate with Group Chief Executive and Financial Officer.</p>
	<p>Organise Steering Team, meeting monthly to review progress and learning.</p>
	<p>Train and support selected managers and leaders of processes, initially those impacted by the projects. Later waves cover all top managers and other key leaders.</p>
	<p>Re-allocation of roles in Sales and in Operations. Appointment of permanent Strategic Change Manager.</p>
<p>Results</p>	<ul style="list-style-type: none"> • Alignment on priorities, projects properly chartered, roles clear. • Reduction in throughput times and production costs. • Clear support systems for sales growth strategy. • Reduced costs of credit from disputed invoices.

PMI's model in action 2: Aerospace Supply Chain

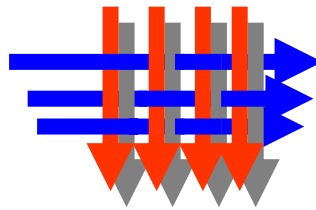
Component	What they did
	Manufacturing VP visit to supplier premises to establish new cooperate relationship.
	Joint work by Logistics and supplier management to improve whole system from casting at supplier to machining at customer.
	Keep the assembly customers informed. Ensure the close monitoring of key measures.
	Constant review at Management meetings.
	Coaching and training of senior and supervisory leaders in process management.
	Many changes in responsibilities as the new, simplified processes are implemented.
Results	<ul style="list-style-type: none"> • Transformed, honest, supportive relationship with critical supplier. • Improved conformance to promises. • Reduction of lead time. • Reduction of cycle time. • Huge saving in labour and packaging.

In each case the programme started with application to important, line management-led projects, supported by a combination of the companies' own staff and the PMI consultant. This increased the chance of success, thanks to:

- Executives giving their full attention because the focus was on their issues,
- Assignment of the best people as sponsors and project leaders because of the top-down prioritisation,
- Time being made available in competition with other demands (after some struggle),
- Presence of the consultant leading to exemplary use of the methods,
- Contemporaneous training that meant it was relevant, and
- The methods used in real time, so they were absorbed properly by the participants, finally leading to:
- Acknowledgement of success and recognition of the people.

5. Developing your Programme

Creating the tapestry of process management and continual change.



Small, or large, the success of the change strategy lies as much in its integration as in the components. In particular, large-scale improvement projects often lose momentum during implementation, no matter how valid the plans, whilst training of everyday leaders tends not to generate actual improvement unless intelligently referenced to step-change projects.

Given that every application is different, even when implementing a programme that has worked in a different place in the same organisation, it is essential that the leader develop the knowledge of what is best by using PDSA.

PDSA enables you to learn about the improvement programme as you go. A small-scale, rapid project will uncover the learning that will dramatically improve the leadership you can show in later stages. You should use experienced external support for this first cycle; after the first iteration you can jointly decide on the next steps.

Conclusion

25 years after the first realisation in the West that Japanese success in quality and productivity was rooted more in methods than national culture, the challenge to leaders around the world is more stark than ever. In spite of countless initiatives and programmes and many improvements, the best Japanese companies far outperform their Western competitors.

Further, two more challenges have appeared. On the one hand consumers have become more demanding now they appreciate the real possibility of lower prices and almost perfect reliability. On the other the cost pressures that result from global flexibility of production and service make it hard for any enterprise or institution to thrive by protection.

There really is no alternative for managers but to develop the skills of system leadership and transformation, taking advantage of a whole generation of robust theories and models. PMI's Leadership System provides the structure, whilst PDSA underpins the application on one's own organisation.

Jan Gillett and Jane Seddon lead Process Management International (PMI). Founded in 1984, we have continuously developed our transformation approach to suit the environments of our clients, and broadening the application to every part of an organisation, regardless of its level, activities, ownership structure or size.

Process Management International Ltd has helped clients around the world to achieve self-sustaining improvement by:

- Supporting the planning of improvement strategy and managing the implementation programme,
- Supporting key projects to help achieve their goals, and
- Structured training and development, from top managers, project leaders and facilitators to all other managers and staff.

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