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EDITORIAL

One of the major problems with business improvement initiatives in the 1980s, which in my opinion is on the verge of being repeated in the 1990s, is that the scope and duration of the attempted improvements is too big. Grand visions of "complete overhauls" which will pay benefits still abound.

GM's project, Saturn, is a great example. Huge sums of money and resources were invested to create a completely automated automobile production facility. The knowledge and goodwill that is resulting from this programme is benefiting many companies including GM, but it will be many years still before the investment pays for itself.

TQM is another fine example. TQM has only just completed its first decade as a prominent management goal, and yet public literature has been questioning its effectiveness for some time. The scope of TQM is not bounded. It includes every structure, process, technology, and communication within an organization.

Further, this scope extends to all customers and suppliers. Managing a "TQM Programme" is a multi-year undertaking which addresses every aspect of company operations. Simply said, TQM is impossible to define and then manage. It has no bounds.

Third, and the final example, is business process re-engineering (BPR). BPR is the hottest topic in corporate America in the early 1990s. Like TQM, the goal of BPR is admirable and tangible at a conceptual level. Like TQM, BPR also has no limitations on its scope.

My prediction is that BPR and TQM will end up in the same category once the approaches are tested over time. The post-mortem will read something like this, "we learned and we improved, but we spent huge sums of money and resources over a multi-year period that would have had much more impact if they had been more focused. In hindsight, we would limit and change our approach".

One of the primary arguments for "total re-engineering" and TQM is that it is impossible to optimize the whole by optimizing the parts. From one view, this logic is quite sound and fundamental. From another view, it falls apart. If the scope of a project is so large that the risk measurably increases and the potential benefits are pushed into the distant future, then "where is the beef"?

The Saturn project, as contrasted with the manufacturing industry in general, provides a reasonable illustration of this viewpoint. Manufacturing professionals spent a good part of the 1980s "linking islands of automation".

First the work centres were optimized, then they were linked together. Changes to localized improvements had to be undone to optimize the flow of the whole operation, but benefits were being realized one cell at a time. In contrast, GM had to wait many years for an entirely new "re-engineered factory" to be built. The scope of the project was barely manageable and there were delays. The investment period was so extensive that it will take many years to recover it.

However, it is important to put this argument in its proper context. I am definitely not advocating that companies do nothing, or ignore the need for wide ranging "quality" and "process" improvements. But, companies should learn from their experiences, anything that is everything has a high probability of being nothing at all, or at the very least being disappointing. The goals of BPR and TQM are noble and tangible at a conceptual level, and are virtually not implementable.

Improvement initiatives and projects should not be undertaken if the scope exceeds some of the practical realities that exist in the business world:

- goals are not clearly definable and finite;
- number of dependencies indeterminable;
- market change cycle shorter than programme;
- programme time exceeds employee durations;
- CEO uninvolved in unbounded projects.

While the "islands of automation" approach was not completely efficient, it was at least definable and manageable. And, it yielded benefits in a phased manner.

Concurrent Engineering

Concurrent engineering, or concurrent product development (CPD), is an improvement initiative that is focused on re-engineering the product development function for speed, efficiency, and quality.

From an organization-wide viewpoint, CPD is an “island of change”. From a management standpoint, CPD is definable. The goals are quite clear:

- raise sales and profits from new products;
- reduce new product time-to-market;
- reduce human and capital costs;
- maintain or increase product quality;
- leverage knowledge and experience.

From a scope perspective, the implementation of CPD programmes is finite and manageable:

- implement process changes within one to two years;

- involve people with stakes in new products;
- focus on business process improvements.

If these three basic tenets of project scope are followed, concurrent product development efforts will yield the expected benefits within the planned time period.

One final warning, many companies focus on technology-based solutions to problems. Almost by definition, the development, implementation and training cycles for technology-based solutions will exceed two years.

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