

An Original



Article

Algorithmic ISO: Making bricks without straw.¹

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Abstract

Taking the ISO 9001 certification as a vehicle for excellence is a path most organizations do not follow because getting to certification is an algorithmic process, probably because of the initial pressure to get certified. Certification is not the signal to sit on the river bank with your feet in the water, and send out for beer and pizza – certification should be the beginning of the road to excellence; otherwise it can be a very expensive exercise in non-value added activity. To view certification in any other way is to make bricks without straw!

All activities in business can be classified as algorithmic or heuristic. An algorithmic activity is one in which a certain set of rules are followed down a single pathway to one conclusion. A heuristic task is the opposite, a novel solution is devised. ISO 9001 certification is an algorithmic exercise, post-certification development is heuristic.

Many organizations sought ISO 9001 certification for a good reason from the Customers' viewpoint without seeing the business process benefits of the standard beyond sales. There was a big upsurge of certifications in the USA from 1994 onwards, in part because of the adoption of the major part of the 9001 standard by the Automotive Industries Action Group [AIAG]. Samuel Johnson is accredited with the saying, "The prospect of being hanged focuses the mind wonderfully"; the deadlines initially imposed by two of the major players in the AIAG came across

¹ Exodus 5:7

as the prospect of being, metaphorically (and occasionally literally), hanged - well at least dropped!

One of the quality management principles is “Continual Improvement”, “Continual improvement of the organization’s overall performance should be a permanent objective of the organization”² and this is addressed, almost tangentially, in ISO 9001:2008, 5.6.1 & 5.6.3. The external assessor should, of course, be looking for improvement of the qms and products but, generally, this is not tied to the maturing of the business system. Certification to ISO 9001:2008 means a few things to the business, if implemented correctly:

- Elimination of non-valued added activities. The ISO implementation process is an ideal opportunity to firstly create a value stream map [VSM] for **all** the organization, focusing upon institutionalized waste and NVA
- Streamlining the interfaces between the processes by the identification and elimination of the boundary management issues between departmental silos
- Demonstrating a degree of control throughout the business
- Of course, allowing Customers to ‘tick’ the “ISO Certified” box in their vendor evaluation
- **If implemented incorrectly, it simply hangs a bureaucratic albatross around the necks of the people, who are trying to achieve something rather than show lots of activity.**

However, realistically, is that all that can be gained?

Absolutely not, certification should mean that the organization has a solid foundation to start a journey to excellence – Matthew 7:24-27 puts the case very succinctly. A house built upon sand will fall down, a house built upon rock will stand.

ISO 9001:2008 certification is the rock.

The first step is to ensure that the mechanisms for controlled change, that are inherent in the standard, are fully internalized throughout the organization. *Ad hoc* change will make the whole, expensive edifice crumble. No development can succeed without the direct and focused sponsorship of Top Management – management gets what they inspect, *not what they expect*. Given the firm foundation there are several paths to take. The Top Management strategic plan must include the necessary resources for advancement, whether that path is towards the Missouri Quality Award or MBNQA [always a good idea because it is a competition] or utilizing the maturity model in ISO 9004: 2009, Managing for the sustained success of an organization. Although Missouri Enterprise hosts past examiners of the Missouri Quality Award program, this paper will concentrate upon developing the maturity model set out in 9004, Annex A.

² ISO 9000:2005, 0.2(f)

The maturity model has 5 levels. A 'good' basic ISO 9001:2008 implementation will place an organization somewhere between Levels 2 and 3. Getting to Level 2 is an algorithmic exercise – following rules and regulations; going beyond is heuristic, because mastery “is not achieved through a formula and methods; mastery in the dynamics requires constant creativity”.³

An example might be Supplier Chain Management.

- A level 2, certified organization, would ensure that processes are in place to communicate with, select, evaluate, re-evaluate and rank suppliers. This is a requirement of ISO 9001:2008, 7.4. All good stuff, no doubt, but not exactly rocket science – my two Labradors do exactly the same thing when they are looking at their food!
- To reach a maturity level of 5 requires a heuristic approach. A demonstration that partners are engaged in and contributing to the organization's success:
 - The 'mutually beneficial relationship'⁴, recognizing the interdependence of the supply chain
 - Selection, evaluation and improvement of suppliers.
 - The supplier's contribution to the organization's activities
 - The ability to create value for the organization
 - The potential for continually improving their capabilities
 - Enhance of the organization's capabilities through co-operation with suppliers
 - RISK inherent in the supply chain

The Missouri Enterprise “Excellence through ISO” program uses the maturity model of 9004. The first step is to assess the current state and develop a plan for the future state, Maturity Level 5.

- The deliverable from this phase is an objective evaluation of the current state and a time-phased implementation plan to take the organization to Level 5.

Working with Top Management, Missouri Enterprise business development specialists then facilitate a steering committee of Top Managers to drive the process and assist in the management of change from algorithmic to heuristic thinking. This program is carefully tailored to each unique organization's needs but significant aspects of this program include:

- RISK – evaluation of RISK in all areas of the business based upon the ISO 31000 methodology
- Establishment of a set of excellence metrics that is acceptable to the organization. The purpose of metrics is both to plot progress and stimulate a certain behavior pattern:

³ William Boast and Benjamin Martin, *Masters of Change* (Denver: Marocome, Ltd, 2005), 79.

⁴ ISO 9000:2005, 0.2 (h)

- Managing change training in the organization. People do not like change, it pushes them out of the 'algorithmic' comfort zones and they become passive aggressive at best, vote with their feet at worst
- Hoshin Kanri methodology, aligned to the Balance Scorecard for each level in the organization
- Murphy Teams. Two Murphy Teams [based upon the immutable Murphy's law] are created – a team to anticipate problems that might occur and another team to evaluate the response to overwhelming success

The pay-back for an organization to go through the process to reach the top maturity level can be enormous, both internally and externally. A level 5 organization is a dynamic and exciting place to be; the intrinsic motivation in the employees alone can pay dividends in retention, people development and first class applicants through the community recognition that it is a great place in which to work.

There is a tendency in many organizations to stop at certification and pay lip-service to the surveillance audits by internal auditing and going through the motions of Management Review. A good question that all external auditors should ask the president of an organization is "Show me how your ISO certification has improved your company?" The normal response, "Well, we have passed all the external audits so far", should initiate a response of, "Well, you are not going to pass this one without showing real improvement"! Using the progression in 9004 maturity model will demonstrate to all stakeholders that the organization is determined to be excellent and that Top Management are committed and professional.