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Quality Corner

*The Case for Integrated Management Systems **

By Peter-Elias Alouche



When it comes to Integrated Management Systems (IMS) and we look at typical organizational structures, a few things become apparent. With communication being one of the top challenges in businesses, the conventional silo management system model. In this structure, communication challenges remain.

Initiatives in one department go unheard of and unnoticed in others as departments are setup with virtual walls that become barriers to progress and value creation. At quarterly and annual company meetings, there may be rumblings of a new initiative going on in the EHS department that the operations team may or may not be aware of. Silos prevent opportunities for learning, knowledge sharing, new perspectives, and building strong cross-functional teams and relationships throughout a company. The ability to solve problems with cross-functional teams with varying perspectives helps develop solutions that are far better than any individual or single group could produce on their own. With a siloed approach, companies miss out on opportunities to gain critical insights that other areas of the business would recognize having solved a similar issue previously and sharing lessons learned from that initiative.

Why are Integrated Management Systems important? For one, they help companies to remain competitive. Today's global competitive environment requires companies to continually find ways to innovate, reduce costs, improve operational efficiency, all while exceeding customer expectations and delivering a memorable customer experience. Companies have a few ways to deliver value to customers. They can find ways to differentiate themselves from the competition in novel ways that are hard to replicate or they can focus on efficiency to drive down costs while optimizing internal resources. Differentiation is a long term strategy that companies will employ to have a lasting effect for organizations. A differentiation strategy focuses more on innovation whether the innovation is founded in technology, processes, and/or services.

On the other hand, efficiency focuses more on cost reductions and optimizing resource usage regardless if those resources are human capital or capital equipment. Organizations can leverage Integrated Management Systems to achieve other efficiency gains that are commonly overlooked. An IMS approach eliminates duplication of redundant activities across business units so organizations can free up resources to do what they were hired to do and are passionate about rather than drown in unnecessary busywork.

Rather than operate with separate silos with redundant processes for audits, document management, non-conformances and non-compliances, corrective actions, it is possible to take an integrated approach. An IMS approach also helps to improve the culture in the organization.

Interested in submitting your article for next month's Quality Corner? Below are some helpful guidelines for Quality Corner submissions:

1. Email submissions to communication@asqtoronto.org by the 15th of the month.
2. Maximum 500 words.
3. A small image (4 cm x 6 cm) can be included.
4. Submission of an article will not guarantee publishing in a given month's newsletter and may be published in a subsequent newsletter.
5. If your submission is selected, the Newsletter Editor will contact you directly.
6. Your submission will be reviewed for clarity, readability, grammar, spelling, etc. and may require revisions prior to publishing in the newsletter.

If you have any questions, please contact the Communications Chair at communication@asqtoronto.org or speak with Sanaz Ghazi at the next section meeting.

ASQ Toronto Monthly Newsletter

Quality Corner (Continued)

Seeing all of the management systems as part of one business management system to run the firm introduces systems level thinking. The IMS approach teaches everyone in the company to not only think about themselves but the entire system. This can be a powerful organizational capability that leads to new insights and innovations that would be difficult to achieve when viewing systems as independent entities. Once we combine the common elements of the QMS, EMS, and SMS we have what the industry refers to as an Integrated Management System.

Basically, Integrated Management Systems focus on consolidation and elimination of duplicate processes that are historically inefficient and resulted from legacy silo management systems. By integrating the management systems across business units, processes, work instructions, and forms/checklists and process owners, a more efficient and effective IMS can be realized that will ultimately help place the organization on a strong footing so that it is built to last.

The management system becomes that foundational engine that keeps the lights on when no one is home.

Areas that are common to these management systems include risk management (risk-based thinking), audits, document management, management review, corrective action, training, and continuous improvement.

We should never stop short and settle for today's silo management system approach. Quality, Environment, and Health & Safety professionals should investigate the opportunity that Integrated Management Systems can bring and start building a business case to eliminate duplicate processes by integrating IMS as a corporate-wide initiative to address a variety of issues relating to inefficiency, unnecessary waste (MUDA), poor use of human and capital resources, lack of visibility for corporate-wide performance, frustrated employees, lost profits, etc.

Going after anything worth pursuing requires skilled team members, persistence, strategy, and a strong culture. Don't give up on achieving something great like an IMS that will provide your organization, your customers, humanity, and the Earth with a multitude of benefits that will stand the test of time.

(*) *The complete article is accessible on:*

<https://www.linkedin.com/pulse/case-integrated-management-systems-peter-elias-alouche/>

Member of the Month



We want to hear from you, our members and recognize those of you doing great work in the Quality community. We would like to help promote our valued and trusted members so that each of us can get to know one another a little better while recognizing the expertise that is part of our community. We will be featuring a section in the monthly newsletter for someone that made a great contribution to the quality world. If you are interested in being featured, please visit <https://goo.gl/forms/9Cewa17TZwaUDZIS2> and submit the required information by the deadline.

Testimonials



ASQ Toronto is looking for members to participate in a quick 2 minute testimonial that we will use to promote the ASQ Toronto community via our new [ASQ Toronto YouTube channel](#). Video recordings will take place at the end of the monthly ASQ section meeting or remotely. To participate, go to <https://goo.gl/forms/27ZMDg4Ilp3VLbn2>. You will need to answer the following in the 2 min video testimonial:

1. What is your name, job title, and how long have you been a member of ASQ?
2. What is 1 thing you learned from the section meeting?
3. What do you enjoy the most as an ASQ Toronto member?

January Section Meeting

This month's section meeting took place on January 10, 2018 at the SpringHill Suites in Vaughan. The guest speaker was NICK SHELTON spoke to ASQ Toronto members about Modern Techniques for Root causing & Reducing Defects.

About the Speakers: Nick Shelton

Nick Shelton, P.Eng supports technical customer development for JMP a division of SAS Institute Canada where he assists clients drive business and manufacturing process efficiency through the use of JMP statistical discovery software. Shelton came to SAS from Advanced Micro Devices where he worked as Product Development Engineer specializing in statistical data analysis, modeling, semiconductor device physics and fabrication. A Lean Six Sigma expert, Shelton also worked for several years as Product Engineer with Texas Instruments, where he provided manufacturing process improvement, post-production cost reduction, yield enhancement and test optimization. Shelton holds a Master's of Science in electrical engineering from West Virginia University.

Nick discussed about five modern techniques for root cause analysis and defect findings. These tools are:

- Visual Data Exploration - Bringing insights to the surface
- CART - Classification And Regression (Decision) Trees
- Artificial Neural Network: Creating prediction models based on biological neural networks
- Bulk Process Screening - Find problematic processes fast!
- Text Exploration - Uncovering meaning in unstructured text

These tools will dramatically reduce the time performing analysis and increase the success rate of finding a solution.

With using Visual Data Exploration, plotting the data will uncover hidden relationships and interactive graphics assist in finding key results without the need for "Heavy" statistics.

CART - Classification And Regression (Decision) Trees is useful for exploring relationships without having a good prior model, handle large problems easily and interpreting the results

Artificial Neural Network (NN) is very powerful modeling technique to predict linear & non-linear relationships between inputs and outputs, to outperform other types of prediction algorithms and to combine NN with interactive graphics to assist in the interpretation of results.

Bulk Process Screening is process screening that simplifies the task of assessing data from a large number of processes for stability and capability. Furthermore, goal plots are useful for quick summary views of how variables are conforming to the spec limits.

Text Exploration automates the time consuming task of reading and understanding text and uncovering themes in comments and responses



Next Section Meeting & Events



Did You Know?

- Thursday, February 1st, 2018, ASQ Toronto Section has an event for newcomers and members in Quality field.
A panel with seasoned Quality professionals answering your questions about:

- Challenges and opportunities in the quality field
- How can you position yourself to get a good job?
- Where can you network and get noticed
- The role of education, experience and certifications
- Testimonials
- And much more...

Event location: Holiday Inn Toronto Yorkdale,
3450 Dufferin St., Toronto, ON, M6A 2V1

For registration: <https://asqtorontofeb0118.eventbrite.ca>

- Wednesday, February 14th, 2018, ASQ Toronto section has an event by Morteza Zohrabi from Medtronic. He talks about "How to prove the monetary value of our projects to the project sponsors?"

Event location: SpringHill Suites Toronto Vaughan
612 Applewood Crescent, Vaughan, ON, L4K 4B4

Registration open soon at: <https://asqtorontofeb1418.eventbrite.ca>

- Wednesday, February 28th, 2018, ASQ Toronto section has a webinar.
More information will be announced soon at [ASQ Toronto Website](#).

- Saturday, March 24th, 2018, ASQ Toronto section has a breakfast workshop.
More information will be announced soon at [ASQ Toronto Website](#).

- Wednesday, April 18th, 2018, ASQ Toronto section will hold Spring Seminar.
More information will be announced soon at [ASQ Toronto Website](#).

Fast Fact

The ASQ Toronto section is the 3rd largest section membership of ASQ globally with over 1,300 members.

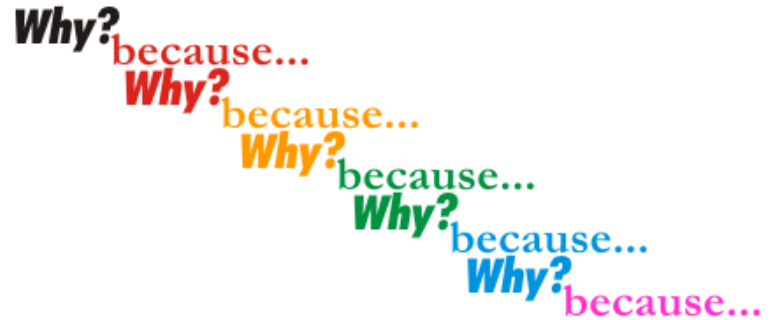
The largest member section is Minnesota with a whopping 1,602 members.

What would it take for ASQ Toronto to be even bigger and better next month? Next Year? Speak to a member of the ASQ Toronto executive team at the next section meeting or contact them by [email!!!](#)

Quality Spotlight

In this issue, 5 Why's technique is introduced as one of the powerful problem solving tools in quality management and process improvement:

The 5 Why's is a simple problem-solving technique that helps you to get to the root of a problem quickly. The technique was originally developed by Sakichi Toyoda, a Japanese inventor and industrialist. The 5 Why's was used within the Toyota Motor Corporation during the evolution of its manufacturing methodologies and became very popular in the 1970s by the Toyota Production System, and is now used within Kaizen, Lean Manufacturing, and Six Sigma.



The 5 Why's technique involves you to ask why the problem occurred. But don't stop there. Continue to ask 5 'Why's?', or at least continue until you can no longer identify another cause. That is the point where you have found the core of the problem

The 5 Why's strategy involves looking at any problem and asking: "Why?" and "What caused this problem?" Very often, the answer to the first "why" will prompt another "why" and the answer to the second "why" will prompt another and so on; hence the name the 5 Why's strategy. The 5 Why's is simple and easy to learn and apply. It helps you to quickly determine the root cause of a problem. The 5 Why's is one of the simplest tools; easy to complete without any statistical analysis.

When to use the 5 Whys

- When problems involve human factors or interactions.
- In day-to-day business life; can be used within or without a Six Sigma project.

How to use the 5 Whys

Describe the specific problem completely so that all members of problem solving team will have clear understanding of the issue.

Ask "Why" the problem occurs and note down the answer below the problem.

If the answer just provided doesn't identify the root cause of the problem identified in step 1, ask "Why" again and note down the answer. Repeat step 3 until all the members of the problem solving team agreed that the root cause of the problem is identified. Again, this may take fewer or more times than five Why's.

When looking to solve a problem, start at the end result and work backward (toward the root cause), continually asking: "Why?" You'll need to repeat this over and over until the root cause of the problem becomes apparent.

In manufacturing environment The 5 Why's is usually done in three different scenarios to solve a single problem. Those Scenarios are termed as "Prevent", "Protect" and "Predict".

Let's assume a defective part reached to the customer and customer lodged an official complain. Following questions will be asked in 5 Why's for the above three scenarios.

PREVENT: Why the process allowed to make a defective part. What are the flaws in the process so that a defective part was produced. PREVENT section focuses on to the actual manufacturing process.

PROTECT Why the defective part could not be caught at in-process and final inspection. How the defective part escaped from the system. PROTECT section focuses on to the detection of the defective part at the inspection process. Inspection may be manual or automatic.

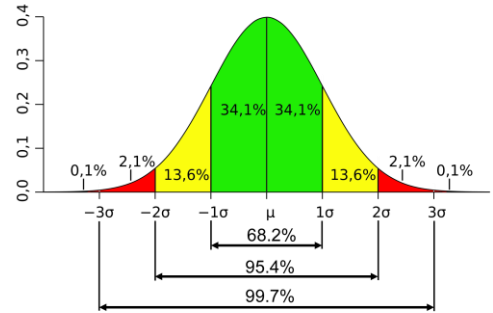
PREDICT: Why the system did not predict at initial stage for formation of defective part. Was the failure mode identified in FMEA (Failure Mode Effect Analysis). If identified, what were controls identified to detect failure and why they failed. The PREDICT section focuses on to the identified failure modes and controls placed at very early stage of product development.

References:

- Solving Tough Problems, By Adam Kahane
- The Goal: A Process of Ongoing Improvement, By Eliyahu Goldratt and Jeff Cox
- GM 's Drill Deep Worksheet
- [ASQ Toronto Website](#)

ASQ Statistics Webinars

The ASQ Statistics division has several free webinars available for its members to learn more about risk based statistics for product testing, process capability analysis, DOE, and paired t-tests. To watch any of the webinars visit <https://www.youtube.com/ASQStatsDivision> today.



Volunteers Needed: Photographers

All photographers on deck! We're currently looking for ASQ members in good standing with strong photography skills to take quality photos in one or more of ASQ Toronto's special events such as the Employment Assistance meeting in March, Spring Seminar in April, and Awards & Recognition meeting in December. Volunteers will receive 0.3 RU per meeting per session as applicable. It would be ideal if you could bring your own DSLR camera for these events.

If you are interested, please submit a brief resume or share your LinkedIn profile with Savita Deshpande, Volunteer Chair at volunteers@asqtoronto.org.



Change in Exam Format

ASQ has moved from the traditional "pencil and paper" exam format to computer-based testing (CBT). Detailed information is available on ASQ's website at <http://asq.org/cbt/>. Since this exam format is still new, please visit the website from time to time as ASQ provides new updates.



Job Postings

Job Title	Company	Expiry Date

There are no new job postings for January. Stay tuned!



ASQ Toronto Leadership Team

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Feedback

Please let us know your opinion about the newsletters. What would you like to see in the newsletter and how we can make it better? Your ideas are most welcome.

Please email your comments to the Communications team at communication@asqtoronto.org.