

Newsletter Publishing Guidelines

1. Technical Merit
 - Factually correct
 - Relevant to our mission
 - Meets all guidelines
2. No selling of services
3. Nothing offensive

Additional factors to be considered are:

4. Not too similar to something recently done
5. Desired subject matter—how timely is material?
6. Well-written and interesting
7. Needed length

Review and Selection

Our review and selection process will also be simple. Upon approval of a submitted work, the subcommittee forwards the piece to newsletter editor Cindy Miller for final review and approval. Our goal is to allow Cindy to have a reserve of four to five articles for the newsletter. As works are submitted, I will forward them on to all of you for review. I want us to strive for a turnaround time of two weeks for those works that need little or no editing. I would propose that every submitted work be reviewed by at least three of us, with majority vote determining whether or not to pass the work on to Cindy, reject the work, or send back for editing/modification. In the event of a tie, I will cast the deciding vote. I will also be responsible for maintaining a tracking log of all submittals.

Length

The desired length for tips, book reviews, articles, and case studies is 400 to 800 words. Tips and book reviews would be in the 400 to 600 range, articles anywhere from 400 to 800 words, and case studies 500-plus. If a submission goes beyond 800 words, then we should look at breaking it into more than one part. I see these proposed values not as rigid restrictions but rather as a sorting mechanism with occasional overlap between categories.

Integration of Lean Tools With Predictive Scorecards

by *Forrest W. Breyfogle III*

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Lean has a very good tool set; however, it is not a business management system. To better address the challenges of the day, organizations need an effective business management system that integrates lean tools with predictive scorecards and analytical/innovative strategies so that undertaken process improvement efforts have whole-enterprise benefits. The Integrated Enterprise Excellence¹ (IEE) business management system, which is illustrated in Figure 1, accomplishes this organizational objective.

In Lean Six Sigma, improvement projects are to follow a define-measure-analyze-improve-control (DMAIC) roadmap. Within the IEE system, there are two DMAIC roadmaps: Project DMAIC (P-DMAIC) and Enterprise process DMAIC (E-DMAIC). Figure 1 shows how the P-DMAIC roadmap connects with the E-DMAIC roadmap in the business system's improve phase.

This roadmap interconnection is made since process improvement projects are one of the primary two ways to improve the overall enterprise. The other improvement methodology is through a design project, which has its define-measure-analyze-design-verify (DMADV) execution roadmap, as shown in the top of the figure.

The E-DMAIC roadmap portion of this IEE system provides the framework for an enhanced business management system that structurally integrates the desired components of an overall business management system.

One aspect of the overall E-DMAIC system that addresses organizational control is the value chain, which integrates operational procedures with predictive performance metrics, i.e., a component of the define and measure phases of the E-DMAIC system. An example IEE value chain is illustrated in Figure 2. In this value chain, organization and control procedures are presented by clicking the drill-downs of the rectangular boxes, while predictive 30,000-foot-level predictive performance metrics³ are displayed as a business scorecard by simply clicking on the oblong boxes.

In addition to process-flow-charting procedural steps, value chain rectangular boxes can be drilled down to a commonplace lean tool, i.e., value stream map, as illustrated in Figure 3.

cont. on p. 6

Figure 1. The Integrated Enterprise Excellence business management system
From Figure 4.2: *Integrated Enterprise Excellence, Volume II, Business Deployment*¹

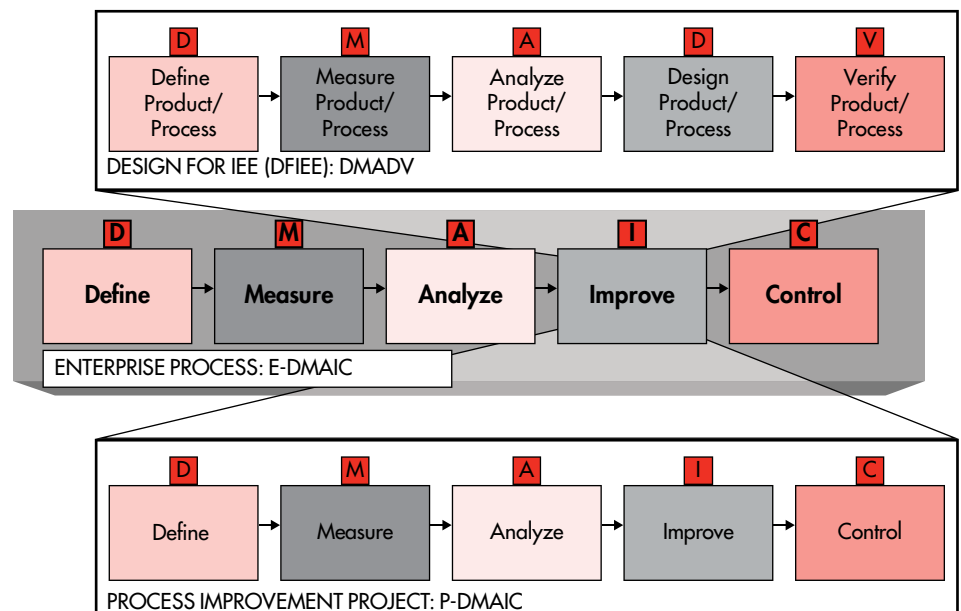


Figure 2. IEE value chain example

From Figure 7.1: *Integrated Enterprise Excellence, Volume II, Business Deployment*¹

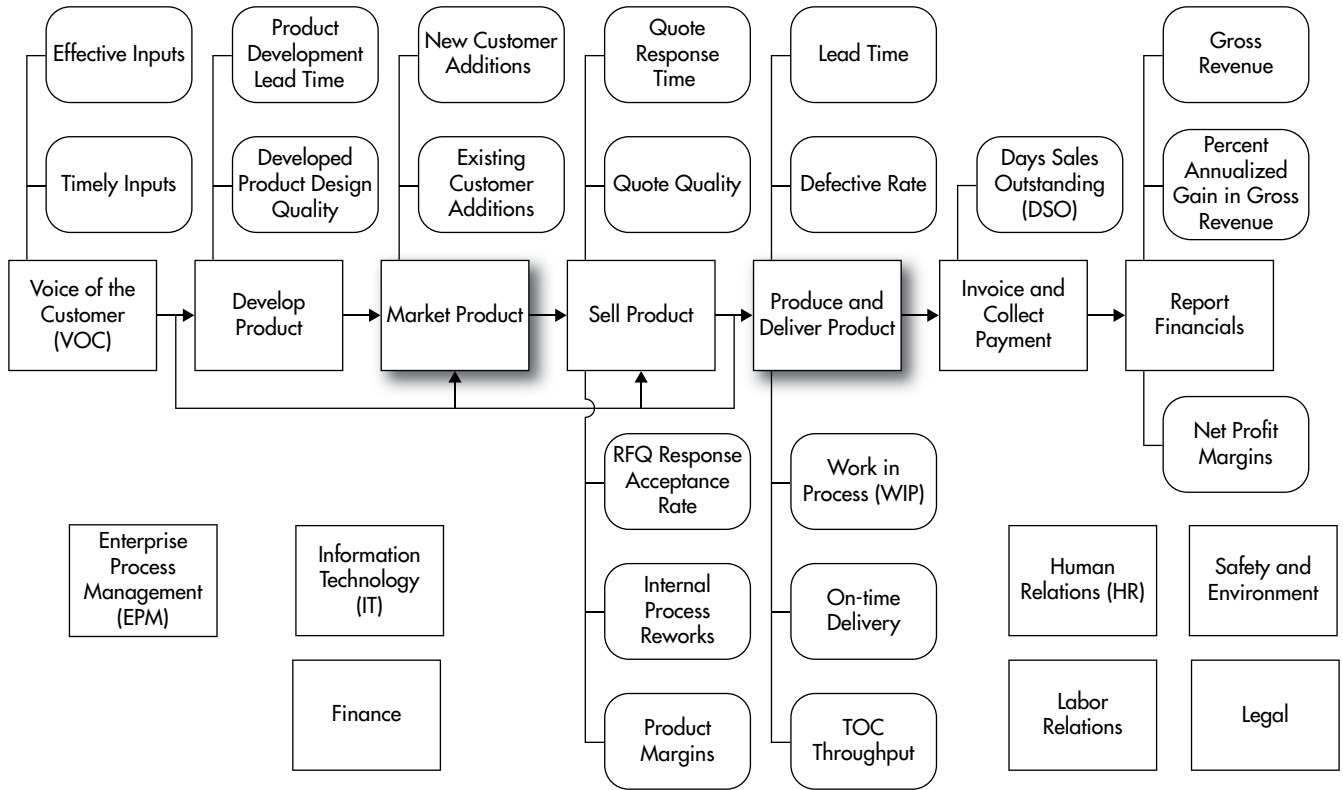
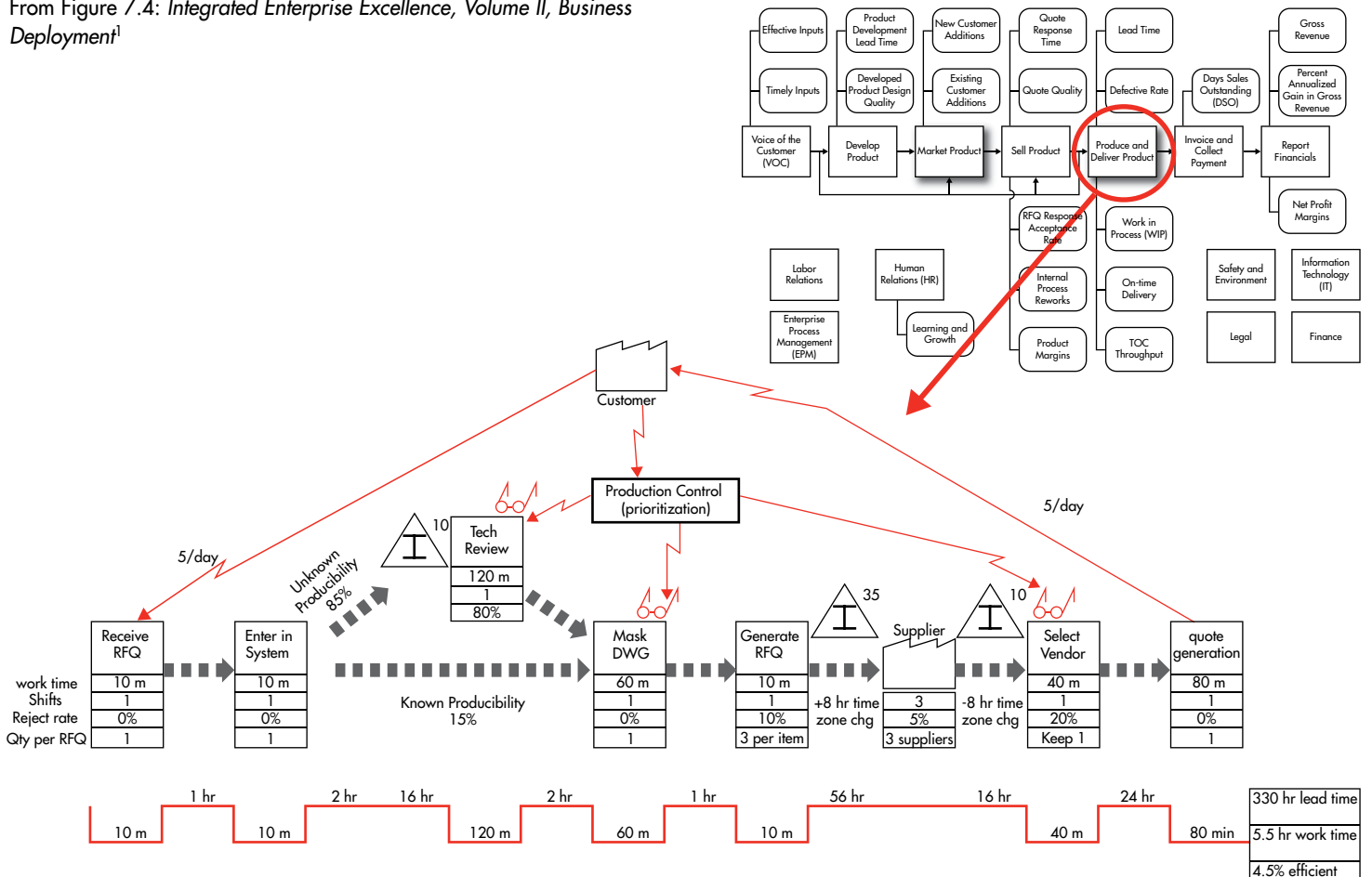


Figure 3. Example of subprocess value stream map drill-down

From Figure 7.4: *Integrated Enterprise Excellence, Volume II, Business Deployment*¹



Predictive Scorecards cont. from p. 4

In IEE's value chain, lean metrics such as lead time or on-time delivery can be assessed for process stability, noting that if a process has a recent region of stability, it can be considered predictable. For a continuous response that has a specification, an IEE stability assessment would be made through a 30,000-foot-level control chart, while the predictability statement would be made using a probability plot of the data from the recent region of stability.

Figure 4 illustrates this form of IEE metric report out where the probability plot provides an expected percent nonconformance rate if the process were to continue its current-state performance. For this process, about 13.7% of the transactions are expected to be beyond the specification limits of -5.0 and 1.0, i.e., $(100 - 92.4) + 6.2 = 13.8$. An effective process improvement effort would result in the shift of the 30,000-foot-level control chart to a new, improved level of performance that is quantified through another probability plot of the after-improvement data.

Aspects of the E-DMAIC roadmap include:^{1,2}

- Deploy enterprise standardization so that important process elements are performed consistently in the best possible way.
- Ensure effective business process audits and business process management with their documented procedures in the value chain.
- Institutionalize process error-proofing wherever possible.
- Ensure that 30,000-foot-level scorecard/dashboard metrics with improvement objectives are tracked/reported correctly/effectively and incorporated into performance plans.
- Work with the conducting of regular monthly management meetings, giving inputs—when appropriate—to how data are presented and analyzed.

Lean's Integration Within the IEE System

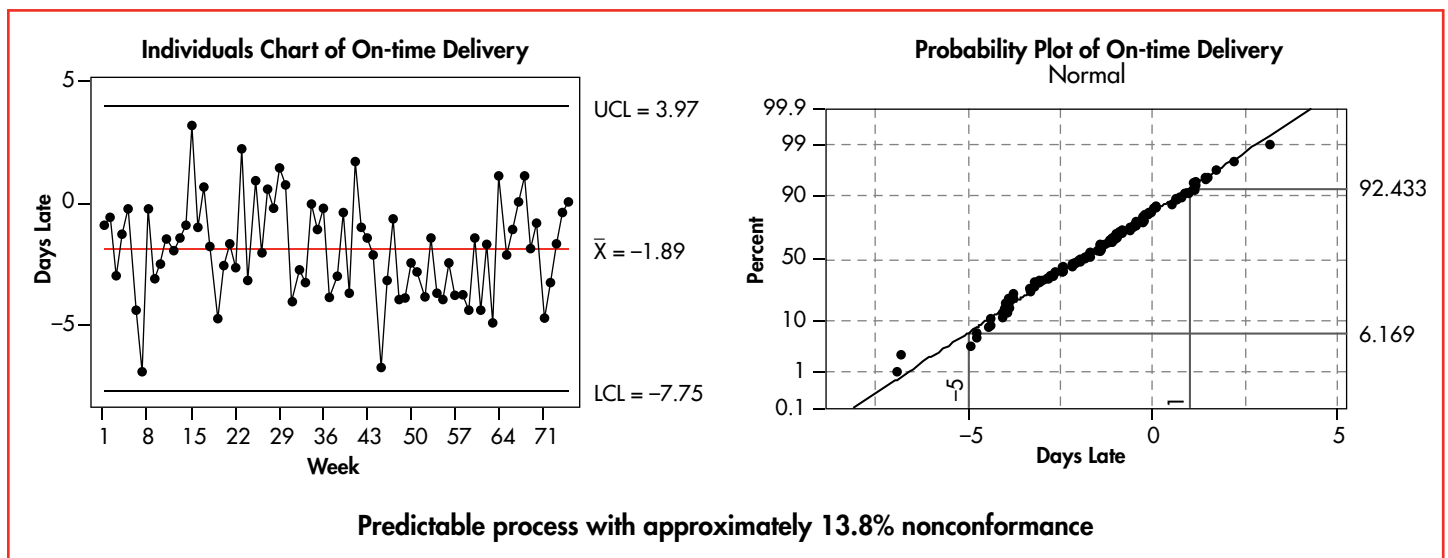
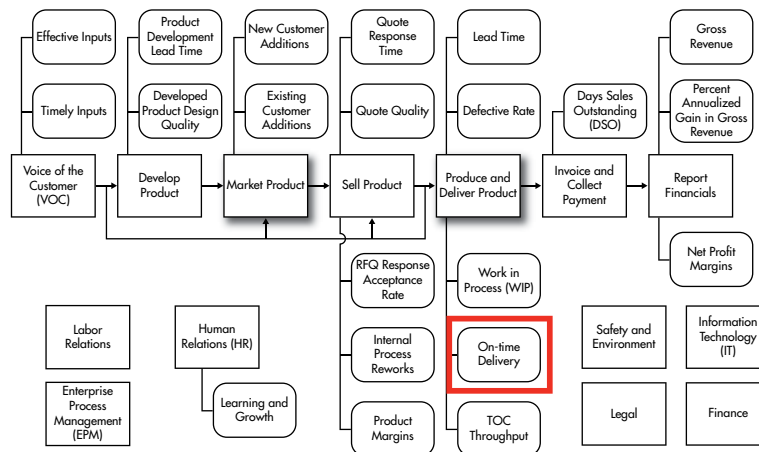
In IEE, lean can be used to describe at an enterprise level an organization's as-is state:

- An organizational value chain can include standardized procedures, documentation, and value stream maps in one location that is readily accessible by those who need this information.

cont. on p. 7

Figure 4. 30,000-foot-level on-time delivery performance scorecard/dashboard report

From Figure 7.8: *Integrated Enterprise Excellence, Volume II, Business Deployment*¹



Predictive Scorecards cont. from p. 6

- Lean metrics such as takt time, lead time, and defective rates can be assessed for stability and reported as predictive statements, when appropriate.

Relative to process improvement, lean tools are integrated within the IEE system in several places:^{1,2}

- In the analyze phase of E-DMAIC, value stream mapping of key processes can provide insight to where improvement efforts should focus.
- In the measure phase of P-DMAIC, the following lean tools provide insight to where improvement efforts should focus: waste identification, takt time, Little's law, observation worksheet, standardized work chart, combination work table, logic flow diagram, spaghetti diagram, five whys, time-value diagram.
- In the improve phase of P-DMAIC, the following lean tools provide direction or facilitation of improvement activities: learning by doing, plan-do-check-act (PDCA), standard work and standard operating procedures, one-piece flow, poka-yoke, visual management, 5S method, kaizen event, kanban, demand management, heijunka, continuous flow and cell design, changeover reduction, and total productive maintenance (TPM).

Summary

A value chain breaks down commonplace organizational silos where this business's fundamental performance map provides scorecards and procedures that have ownership. Linkage of performance measurements with controls in the value chain provides a framework for preventing unhealthy behaviors, which can lead to very detrimental consequences as exemplified above. The described system provides the structure for organizational movement toward achievement of the 3Rs of business: Everyone doing the Right things, and doing them Right, at the Right time.

References

1. Breyfogle, F. W., *Integrated Enterprise Excellence, Volume II – Business Deployment: A Leaders' Guide for Going Beyond Lean Six Sigma and the Balanced Scorecard*, Austin, TX, Bridgeway Books and Citius Publishing, 2008.
2. Breyfogle, F. W., *Integrated Enterprise Excellence, Volume III – Improvement Project Execution: A Management and Black Belt Guide for Going Beyond Lean Six Sigma and the Balanced Scorecard*, Austin, TX, Bridgeway Books and Citius Publishing, 2008.

Meet Us Now on Twitter @asqled

The ASQ Lean Enterprise Division exists as a strong advocate of eliminating nonvalue-added activities that add waste in the form of unnecessary time, effort, or cost, and creating products and services that will add direct value to a customer. Value from the perspective of the customer is the voice of the customer (VOC).

In my role as the chair of the Lean Enterprise Division VOC committee, I am continually trying to understand clearly and exactly what product or service our members desire, when it needs to be delivered, and at what price. I am always looking at technologies and creative ways that will help us understand our members better, and this is why we started using Twitter.

As we all know, Twitter is an online social networking and microblogging service that enables its users to send and read text-based posts of up to 140 characters, informally known as "tweets." Twitter is really just another form of online communication in a new shape, but is also a platform for listening to the communication of others in new ways. As a Twitter user, one can post updates, follow, and view updates from other users and send a public reply or private direct message to connect with another Twitterer. Tweets have evolved to more than everyday experiences, and take the shape of shared links to interesting content on the Web, conversations around hot topics (using hashtags), photos, videos, as well as real-time accounts from people who are in the midst of a newsworthy event, conference, crisis, or natural disaster. Users who enjoy reading what you share on Twitter become your followers and, likewise, you follow those who share content that is of interest to you.

I have outlined some of the goals that the ASQ Lean Enterprise Division is aiming to achieve using Twitter:

1. Connect with our members all over the world and those who are interested in what we do.
2. Share lean content from ASQ and the Lean Enterprise Division, which may include, but is not limited to, articles, newsletters, best practices, case studies, podcasts, videos, tools and techniques, education, conferences, certifications, and calls for papers.
3. Retweet and share content from quality professionals and lean practitioners around the world.
4. Share ASQ and the Lean Enterprise Division's special offers, exclusive promotions related to lean education, membership, and lean conferences.
5. Announce and recognize winners of lean contests at conferences, best lean writers, speakers at lean conferences, and certified lean professionals.
6. Announcements and reminders for conferences, training, and call for white paper submissions.
7. Announcements for case studies and articles.
8. Announcements for lean jobs and career advancement opportunities.
9. Get direct feedback from our members and those who are interested in what we do.
10. Tweet-ups and Twitter discussions.

Twitter is a small attempt by the Lean Enterprise Division to make ourselves available for our members, help whenever possible, and to show that the Lean Enterprise Division is built and run by real people who believe in quality and lean, and who care about our members. So come follow us on Twitter and get immediate access to rich content from quality professionals and lean practitioners around the world. We can be followed on Twitter at @asqled. We look forward to meeting you.

Madhavi Chodankar

Voice of the Customer Committee Chair