

Inputs Into Action

9 steps to a better VOC-initiated improvement project

A YEAR AGO, I wrote about the nine-step Integrated Enterprise Excellence (IEE) business management system¹⁻³ and how it can be used to integrate voice of the customer (VOC) sources with other improvement efforts so an entire enterprise can benefit.

This nine-step method can be used to enhance the balanced scorecard method⁴ by:

1. Describing the vision and mission.
2. Describing the value chain, including satellite-level and 30,000-foot-level metrics.⁴

3. Analyzing the enterprise.
 4. Setting specific, measurable, achievable, relevant and timely (SMART) goals for satellite-level metrics.
 5. Creating strategies.
 6. Identifying high-potential improvement areas and establishing related SMART 30,000-foot-level metric goals.
 7. Identifying and executing projects.
 8. Assessing the impact the project's completion has on enterprise goals.
 9. Maintaining the gain.
- To implement this business system, one manufacturer took each of these steps

and used the method as a roadmap for targeted improvement projects. Here's what happened:

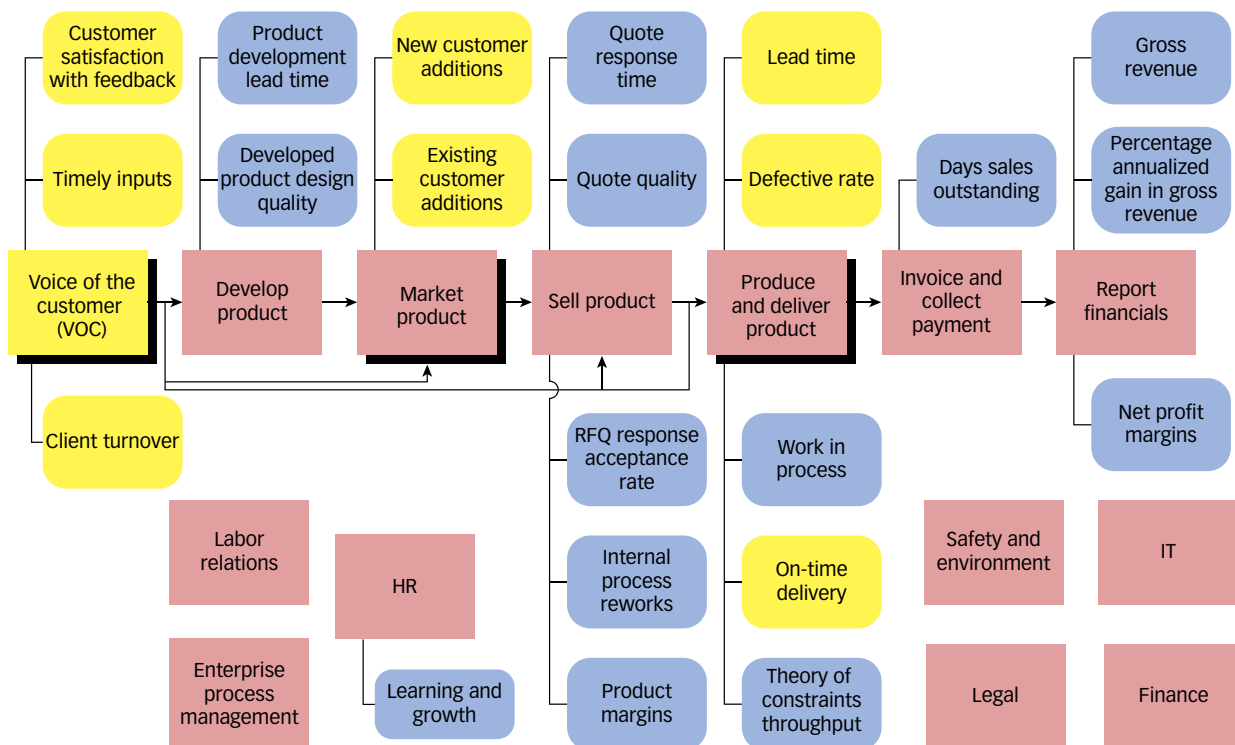
Step one: Describing vision and mission.

First, the company's executive team agreed on the following statements:

- Vision: To become a preferred supplier for all major department store chains, including having a branded display section in stores.
- Mission: To produce plastic injection molded items for consumer use.

Step two: Describing the value

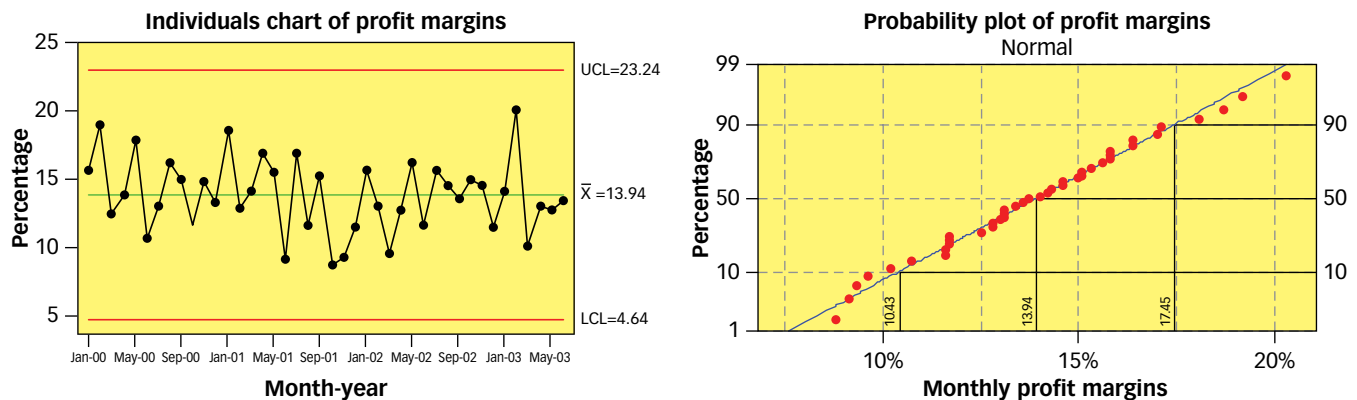
Value chain / FIGURE 1



RFQ = request for quote

Note: External VOC process and metrics highlighted in yellow.

VOC inputs and financials / FIGURE 2



Predictable process with an approximate median monthly profit margin of 13.94% and 80% frequency of occurrence between 10.43% and 17.45%

LCL = lower control limit

UCL = upper control limit

VOC = voice of the customer

chain, including satellite-level and 30,000-foot-level metrics.

The value chain created in Figure 1 describes what the organization does—the rectangular boxes—and the performance measures for each function from a quality, cost and time perspective—the oblong boxes—in which external customer metrics are highlighted.

Among Figure 1's value-chain business functions, there's a relation between the defective rate metric and VOC satisfaction. The implication of this relationship is that reducing defective rates leads to improved customer satisfaction and corporate profitability.

In the IEE performance scorecard system, satellite-level metrics focus on the financials (for example, profit margins), while 30,000-foot-level metrics^{5,6} track operational performance metrics (for example, defective rates and on-time delivery). Corporate satellite-level and 30,000-foot-level metrics are tracked over time and are not bounded by calendar years.

When a satellite-level or 30,000-foot-level chart shows a recent region of stability,

the process is deemed predictable: data from the last region of stability can be considered a random sample of the future when formulating a prediction statement. If an organization does not like what is predicted for the process that drives the monitored metric, improvements are needed.

To achieve long-lasting benefits, VOC initiatives and other improvement efforts require executive management support. For this to occur, it is imperative that these process-enhancement efforts align with the financials.

Because of this, you need first to create a satellite-level metric baseline. Then you can determine what can be done to improve profitability, for example, and at the same time move toward achieving a customer satisfaction and retention vision.

Figure 2 is the manufacturer's current profit-margin baseline.

Step three: Analyzing the enterprise.

Next, you need to determine the value chain 30,000-foot-level metrics that could be improved to address VOC inputs and the financials, such as those shown Figure

2, so the entire enterprise can benefit.

From this analysis at the manufacturer, it was noted that several improvement opportunities exist for positively affecting the bottom line. One opportunity was a 2% reduction in defective rates, which would not only increase profit margins by 0.5%, but also reduce the No. 1 customer complaint. Figure 3 (p. 54) shows a baseline of this defective rate 30,000-foot-level metric, along with a Pareto chart of encountered defect types.

Step four: Setting SMART goals for satellite-level metrics.

Considered from a step-two competitive analysis, one person noted that the profit margins in the manufacturer's industry averaged 16%. Because the satellite-level performance metric has a median of about 13.9%, as shown in Figure 2, a goal was set to achieve a monthly median profit margin of 16% in 12 months. Basing a profit-margin goal on the industry average is not an arbitrarily set objective, which can lead to unhealthy behaviors. Instead, it addresses the achievable aspect of SMART goal setting.

Corporate management understands

Most organizational **improvement efforts are not sustainable**, in part, because improvement **projects are often created in silos.**

that to achieve this goal, structured process improvement efforts must be undertaken; that is, performance-metric improvement needs are “pulling” for the creation of projects that benefit the entire enterprise. A method to determine and demonstrate alignment of projects with overall business needs is the development of an enterprise improvement plan (EIP), as described in steps five and six.

Steps five and six: Creating strategies and setting 30,000-foot-level performance goals.

A SMART goal was set to reduce the current 5% defective rate by 2% in six months. With this objective, the owner of the defective rates metric is responsible for ensuring that process improvement changes were identified and initiated so this 30,000-foot-level goal could be achieved.

The alignment of this VOC and business strategy and goal with other organizational needs is described in the partial enterprise EIP shown in Figure 4. There, you can see how strategies and improvement efforts overlap and how targeting defective rates leads to two focused projects to reduce the occurrence of two defect types.

Through this EIP, initiatives were identified that will support the VOC issue and an improvement in the financials.

Step seven: Identifying and executing the improvement project.

Various improvement techniques could be used to achieve process improvement goals:

- Lean Six Sigma to address common cause or chronic problems.
- Root cause analysis when a clear special cause exists.
- The plan-do-check-act continuous

improvement process when targeting a series of small potential incremental improvements.

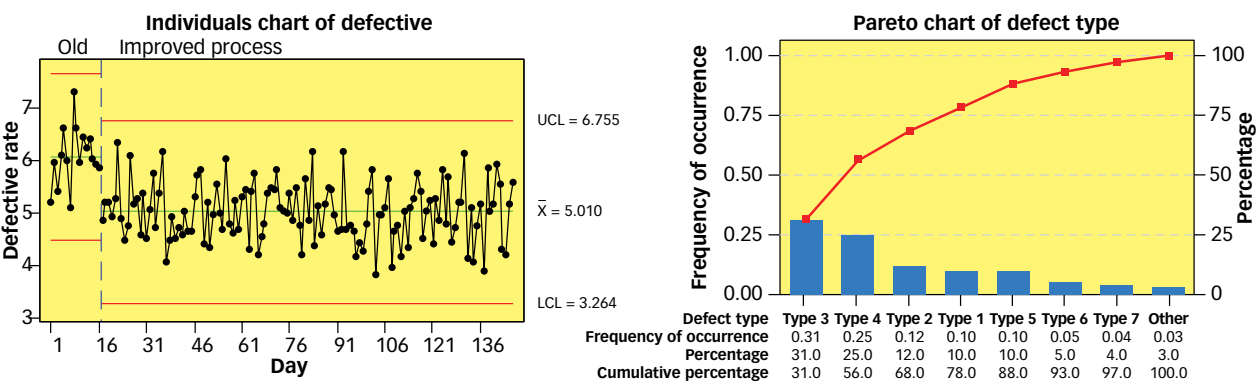
- “Just go do it,” for obvious changes.

For the defective rate improvement projects, which have common-cause issues, focus on following a lean Six Sigma define, measure, analyze, improve and control roadmap.

Steps eight and nine: Assessing the impact the project’s completion has on enterprise goals and maintaining gain.

A shift of the project’s 30,000-foot-level metric to an improved level of performance demonstrates that an enhancement was made to the process. If the magnitude of this shift is not sufficient relative to the metric’s goal, additional work and analysis are needed. This assessment also should evaluate whether any additional costs and effort for achievement of this goal

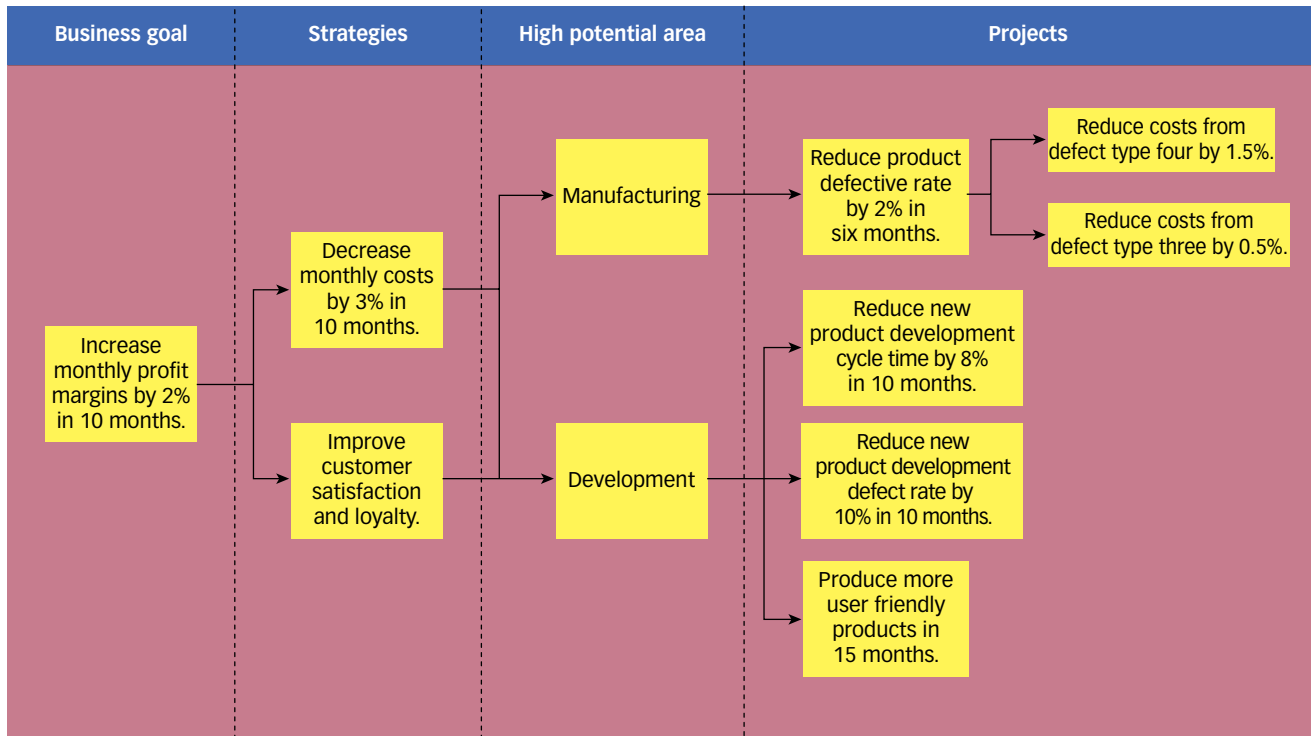
Defective rate 30,000-foot-level metric / FIGURE 3



Predictable process since day 16 with an estimated non-conformance rate of 5%. The most frequent modes of failure are type 3 and type 4 defects.

UCL = upper control limit
LCL = lower control limit

Aligning VOC, business strategy to project selection / FIGURE 4



are worth the resources from an overall enterprise point of view.

Identified process improvements and their controls for maintaining the gains need to be integrated with the organization's value chain system—step two of the IEE business system shown in Figure 1 (p. 52).

It is important to note that step nine of the business system loops back to step four for additional analysis and improvement efforts. This looping provides a system that is not unlike providing W. Edwards Deming plan-do-study-act cycle for the entire enterprise.

The whole business

IEE provides a system for orchestrating efforts that help organizations move toward achievement of the three Rs of business: doing the right things the right way at the right time. One aspect of

these three Rs is selecting and executing process improvement projects.

Most organizational improvement efforts are not sustainable, in part, because improvement projects are often created in silos and do not make a positive impact on the big picture and VOC needs. The IEE system overcomes this by analyzing the business as a whole, creating strategies determined through analysis and innovation, and then establishing operational scorecard goals for targeted value-chain scorecards.

The owners of the 30,000-foot-level metrics to be improved will then be asking and demanding that a process improvement project be executed in a business area in a timely manner, which will make a positive impact on their measurement's performance—that is, steps three to seven of the IEE system. **QP**

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