Is Six Sigma a useful business continuity aid?

Can the Six Sigma quality measurement system help during the business continuity management process? Paul Kirvan FBCI, CBCP, CISSP, explores.

Business continuity, security and emergency management are all process-driven activities. As such, it makes sense to ensure that those processes are constantly being reviewed and improved. Six Sigma is a process that ought to be considered for these disciplines, as it deals with process improvement. This article describes Six Sigma and makes the case for considering its use in the business continuity, security and emergency management professions.

What is Six Sigma?
By definition, the term Six Sigma defines an ideal measurement of quality, known as 3.4 defects per one million occurrences. The mathematical term sigma (Greek letter "s") defines a measure of variation, such as the amount of variance around the average value of a process. The sigma value, or standard deviation, indicates how well a process is performing. From a measurement perspective, a higher value denotes fewer defects per million opportunities.

In practice, Six Sigma can be defined as the disciplined application of statistical problem-solving tools that indicates wasteful costs and recommends specific steps for improvement. Think of Six Sigma as the peak of quality - the virtual elimination of defects from every product or process in an organisation.

This is an excellent position to aim for in business continuity, security and emergency management.

Granted, the "unknowns" associated with these three disciplines raise the question as to how many "defects" can really be eliminated. Done properly, Six Sigma ensures that internal processes are running at optimum efficiency. Zero defects in business continuity, security and emergency management represent a reasonable goal. It also makes good business sense.

Some of the reasons businesses implement Six Sigma include increased earnings and profitability, improved customer satisfaction, a better educated and productive workforce, improved employee problem solving skills, and reduced capital spending. It appears we could also include keeping business and government in business as one of those reasons.

Background on Six Sigma
While the mathematical history of standard deviation goes back to the 18th century, Six Sigma as a measurement standard dates to the 1920's when Walter Shewhart showed that three sigma from the mean is the point where a process requires correction. Credit for coining the term "Six Sigma" goes to a Motorola engineer named Bill Smith. Six Sigma is a trademark of Motorola. Back in the 1980s, Motorola believed quality measurement levels were not granular enough. The company wanted a way to measure defects per million opportunities.
Motorola developed the Six Sigma standard and the methodology associated with it. The company has documented over $16 billion in savings through Six Sigma. Hundreds of companies worldwide have adopted the standard.

Financial issues with Six Sigma
Successful implementation of Six Sigma typically requires a company-wide cultural adjustment. Like business continuity, investments are needed to launch a Six Sigma activity. Implementing Six Sigma requires training, organisational infrastructure and cultural evolution.

But what is the payoff? Although Six Sigma is typically associated with large firms, with proper planning and follow-through it can be adapted to small to medium enterprises. An examination of the results of Six Sigma with some very large firms showed that savings as a

percentage of revenue vary from 1.2 percent to 4.5 percent. However, the investment could be as much as 10-15 percent of revenues. As might be imagined, the number of years needed to achieve these results varies with each company.

How Six Sigma works

Different methodologies are used with Six Sigma. The primary version is Define, Measure, Analyze, Improve, Control (DMAIC); the leading alternate approach is Design For Six Sigma (DFSS).

DMAIC includes the following elements:

. Define the project goals and customer (internal and external) requirements
. Measure the process to determine current performance
. Analyse and determine the root cause(s) of the defects
. Improve the process by eliminating defect root causes
. Control future process performance

DFSS means Design For Six Sigma, and contrasts with DMAIC in that the phases or steps of DFSS are not universally recognised or defined. It is more an approach than a methodology. It is typically used to design or re-design a product or service from the beginning. Several proposals for DFSS have been developed. One example is DMADV, which includes the following elements:

. Define the project goals and customer (internal and external) requirements
. Measure and determine customer needs and specifications; benchmark competitors and industry
. Analyse the process options to meet the customer needs
. Design (detailed) the process to meet the customer needs
. Verify the design performance and ability to meet customer needs

The best way to differentiate between DMAIC and DFSS is to use the former for improving existing products and services, and the latter for new products and services.

Translating Six Sigma to BC, security, and emergency management

So what is needed to use Six Sigma methodologies for improving business continuity? First, it's important to remember that Six Sigma is a customer-focused process improvement methodology. By contrast, the information technology (IT) environment tends to be service-oriented and an enabling function. This differentiates it from core processes, e.g., manufacturing, although IT is often a principal enabler of core processes.

Begin by recognising that:

1) Business continuity is a process;
2) It is customer-focused; and
3) Its customers may need that process. Break down business continuity into its component processes from start to finish. Depending on the level of detail, you may identify numerous sub-processes, such as "develop emergency team" or "conduct plan exercise". For these kinds of processes, ask your customers (of that particular process) what it is they want.

Next, have the project team measure the activity as a process performance. Let's look at a customer service centre as an example:

Customer requirements might be the following:

1) Availability (answer when called);
2) Response (do something when receiving a call);
3) Knowledgeable staff (address the situation during the call);
4) Safety (don't make the situation worse); and
5) Follow-through (ensure satisfaction; collect payments).

The measurable performance criteria for this process might then be:

1) Availability: answer all calls between 0800 and 1800 within 30 seconds;
2) Response: log request and complete initial research for solution within one minute, take action within 10-30 minutes depending on the nature of the call;
3) Knowledge of staff: no returned calls needed, 98 percent of calls satisfied on first attempt; and
5) Follow-through: all post-call activities completed within 5 minutes.

The principles of Six Sigma say that you should not have calls coming in to Customer Service. Instead, you should determine proactively why people are calling, and fix the root cause so they don't have to call in the first place!

What we all want, for example, is a computer that works all the time, is easy to use, does not fail, does what we expect, and when things go wrong, someone is there quickly to fix the problem. With some creative effort, it is possible to use the Six Sigma methodology with business continuity.

Getting certified in Six Sigma

While there are several well-known certification bodies in BC, security, and emergency management, no single body provides Six Sigma certification. By contrast, virtually all of the firms providing Six Sigma training and consulting also provide certification. This occurs because individuals and companies spend a great deal of money - sometimes in excess of $30,000 per individual - to become trained. Hence, certification is a popular add-on service for consulting companies because it lets them differentiate among skills levels, as well as charge additional fees.

Six Sigma certification includes learning the appropriate subject matter, passing a written proficiency test, and displaying competency in a hands-on environment. Materials can be purchased from almost any Six Sigma training and consulting company, but almost always come bundled with classroom training.

Purchase a training session, which has different bodies of knowledge and time frames for each Six Sigma level (green belt, black belt, master black belt, sponsor, etc.). The training company or the business hiring the training company may give the written proficiency test. Typically, companies new to Six Sigma defer to the training firm's proficiency test, while companies with in-house Six Sigma training (e.g. Motorola, GE) manage their own written proficiency tests.

After initial training, candidates must complete one or two quality projects and display competency in applying the concepts learned in the classroom. Certification requirements differ across the board.
Further, there is no standard for what passes and what fails to display an individual's competency. And yet, the popularity of Six Sigma continues to grow.

Conclusion

Six Sigma has been described as a critical business tool for the 21st century. Many books, articles, conferences, and web sites exist to support Six Sigma. Could the business continuity, security and emergency management professions benefit from Six Sigma?

This article was first published CPM Magazine
www.contingencyplanning.com