

SIX SIGMA OUTSIDE MANUFACTURING

Apply Six Sigma To Sales and Marketing

by **Michael S. Pestorius**

Since its introduction at Motorola in the late 1980s, Six Sigma has assumed multiple aliases: operations excellence, business process improvement and process excellence. Regardless of the moniker used, the goal of Six Sigma companies has remained consistent: to encourage

continuous process improvement by using a standardized, documented and repeatable problem solving methodology.

Six Sigma provides a common language and method to address business opportunities and solve business problems. It also provides a roadmap that shows problem solvers where to start and what to do next. Although common tools and language are used, Six Sigma is flexible enough to be applied to different challenges throughout business, wherever they might arise—manufacturing, finance, procurement, sales, marketing or any other functional area.

Since the early days of Six Sigma, there has been an unfortunate but common perception that Six Sigma can improve only pure manufacturing processes and that a fact based problem solving methodology does not transfer well to transactional processes, specifically sales and marketing.

Most of the nonbelievers question the ability and effectiveness of applying a standardized problem solving method to the art of sales and marketing. They believe theirs is such a dynamic and sometimes nebulous environment that a structured approach requiring processes, metrics and data

In 50 Words Or Less

- **Six Sigma offers a problem solving roadmap that can be applied to any business function.**
- **Its lack of success in sales and marketing comes from an unwillingness of leadership of those functions to fully embrace the methodology.**
- **Applying Six Sigma requires altering both processes and attitudes.**

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would only hinder the creative magic required to be successful.

This is not the case. Six Sigma does not suppress creativity; rather, it provides a framework to channel it. Six Sigma provides practical guidance on how to begin the process of solving a problem and supplies questions to ask along the way. Creativity flourishes in the content and throughput of a successful solution, not in the tools used to achieve the outcome. Six Sigma is the engine that drives results; creativity is the fuel.

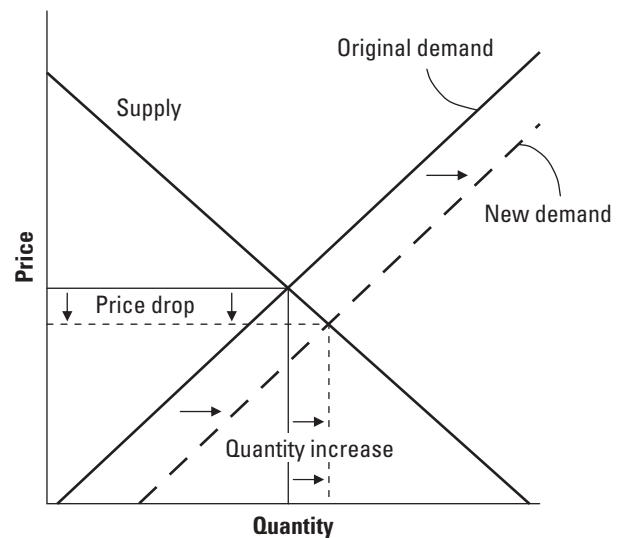
Although Six Sigma has been very popular in manufacturing for over a decade, sales and marketing leaders have only recently started to use it. This delayed appreciation is the result of four main factors:

1. Facilities: In most manufacturing processes, almost every variable can be precisely controlled. Reducing defects and improving efficiency is already ingrained in the psyche and culture. Manufacturing facilities provide fertile soil for the application of problem solving methods that focus on measuring processes and tightly controlling input variables to achieve optimal outcomes. Forerunners of Six Sigma, such as statistical process control (SPC), total quality management (TQM) and ISO 9000 methodologies, attest to this mindset and have been used for years in manufacturing settings.

2. Professional backgrounds: For years, the majority of Six Sigma professionals hailed from manufacturing. These individuals are often less familiar with transactional processes and might not recognize the potential for applying Six Sigma there. This lack of understanding is significant, because to successfully apply Six Sigma one must be familiar with both the Six Sigma tools and the environment in which they are being applied. After all, an auto mechanic would certainly feel more comfortable using a new set of pliers in a garage than in an operating room, even though the tool is appropriate in both environments.

3. Consumer purchasing patterns: For a company to dedicate itself to any improvement effort, there must be a strong cause for action. Manufacturing had that cause for action. The globalization of the world economy removed barriers of entry for low cost manufacturers into established markets. These new, low cost, high quality competitors forced traditional manufacturers to search for opportunities to improve their operations. The

FIGURE 1 Impact of Globalization On Supply and Demand



result of this increased competition was a commensurate increase in the supply of most products at reduced prices. As shown in Figure 1, this upward shift in supply and downward shift in price drove additional demand—therefore sales increased across multiple industries.

Improved manufacturing techniques and increases in sales drove record revenues that masked any need for improved sales and marketing efficiencies. Fat bottom lines led many sales and marketing professionals to ask, “Why should we worry about process improvements while sales and revenue are increasing at record levels?” This attitude, though logically achieved, prevented the arrival of the required cause for action in sales and marketing. Interestingly, this same thinking originally delayed structured process improvements in many manufacturing environments.

4. Existing sales culture: Sales’ entrepreneurial spirit actively resists standardized processes and encourages independence. If Six Sigma is misconstrued as negatively impacting this spirit, it will be opposed.

Applying Six Sigma requires altering both processes and attitudes. When everything seems to be working well, it is difficult to convince people change is needed. Only recently have many CEOs

started to investigate the potential for trying to apply Six Sigma to nonmanufacturing processes.

Evolution of Six Sigma

Six Sigma has evolved from shop floor applications of SPC to the current state of applying processes and measures to all business processes. This progression can be perceived as advancing through three main stages, with the third stage currently underway (see Figure 2).

Manufacturing stage: The genesis of Six Sigma—and still the most fertile soil in terms of ease of application—is in manufacturing. Manufacturing facilities are usually led by engineers who are familiar with the define, measure, analyze, improve and control concept—whether they have been formally trained or not. There is little need to convince them of the advantage of tracking defects back to their sources, trying to identify the root causes of failure and then implementing a controlled solution.

Finance and information management stage: As business leaders became aware of the improvements Six Sigma was driving in manufacturing, they rushed to apply it to other business functions in hopes of reaping similar benefits.

The next logical place was in data rich environments that mirror manufacturing's need for repeat-

able processes and minimal defects.

This led to Six Sigma's introduction into finance and information management. A finance department requires a robust and defect free process to effectively close the books, pay royalties, track expenses, and pay salaries and commissions. The recently introduced Sarbanes-Oxley regulations mandate documented, repeatable financial processes. The opportunities to optimize these processes have resulted in the recent embrace of Six Sigma by financial service companies including Bank of America, Merrill Lynch and American Express. Imagine the money and effort that could be saved if finance departments could accurately close a quarter in a few days vs. two weeks.

Information management also needs robust processes to efficiently and effectively provide software, deliver hardware and manage data. Six Sigma provides tools to help accomplish these tasks.

Finance and information management are usually led and staffed by individuals who recognize and appreciate the advantages of standardized processes. Six Sigma has fulfilled this need for structure in both functions. The first two stages in the evolution of Six Sigma from manufacturing to finance and information management are well established.

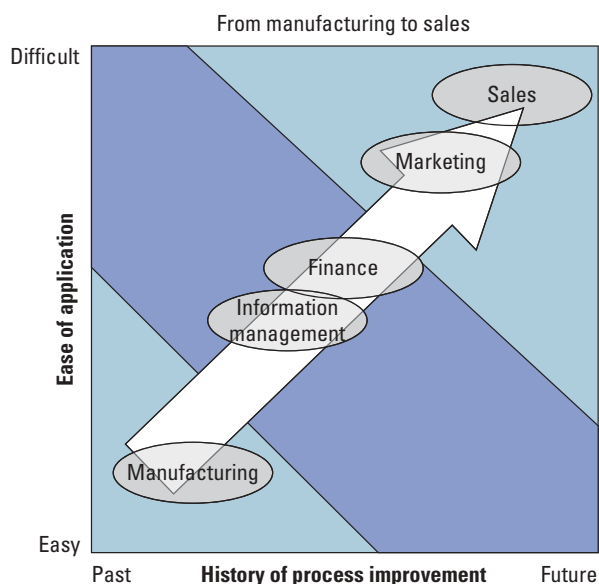
Transactional process stage: The third, and ongoing, stage in the evolution of Six Sigma is its application to transactional processes, most notably in sales and marketing. This has proven to be the most difficult stage in the growth of Six Sigma as a crossfunctional application.

Some of the reasons for this challenge are the difficulty of identifying appropriate projects and driving the culture shift required for transactional leaders to embrace the concept. Driving this change is difficult but worth pursuing. Significant savings can be realized from improved transactional processes because, unlike most manufacturing efficiency gains, improved sales processes directly impact top-line sales and therefore bottom-line profit.

Unfortunately, a lack of precise control over many of the variables in transactional processes has restricted the use of Six Sigma. There is an approximate inverse relationship between the ease of application of Six Sigma and potential savings it can drive.

Unlike in manufacturing, the most important and

FIGURE 2 The Evolution of Six Sigma



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least controllable variable in transactional processes is the human element. In a manufacturing process, many of the process steps are automated and, once set, free of excessive human interference. Because these steps usually can be precisely adjusted and controlled, it is not unusual to achieve very high correlations between the quality of process inputs and the quality of process outputs. Human activities, on the other hand, are far less controllable or predictable. Therefore, processes that require high human input eschew control. The linkages between inputs and outputs are simply not as easy to adjust as they are in manufacturing processes.

Additionally, in sales and marketing processes variables such as customers, competitors and the weather are completely uncontrollable but have a huge impact on process outcomes. These challenges should not be construed as reason to abandon the idea that Six Sigma can work in this environment, but the reality is that fewer process variables are controllable.

Six Sigma should simply be applied to those variables that can be controlled. This might not lead to the near perfect correlations that are seen in manufacturing projects, but correlations of more than 50 to 60% can still be achieved. They provide strong directional accuracy not available prior to the implementation of Six Sigma. In a world where 20% margins and 10% growth are considered success, making critical decisions with 50 to 60% certainty, rather than 0%, is an enormous and profitable improvement.

Myth That Six Sigma Is Only for Operations

To convert the critics who question the applicability of Six Sigma in the transactional arena, the root of their cynicism can often be identified through a few easy questions:

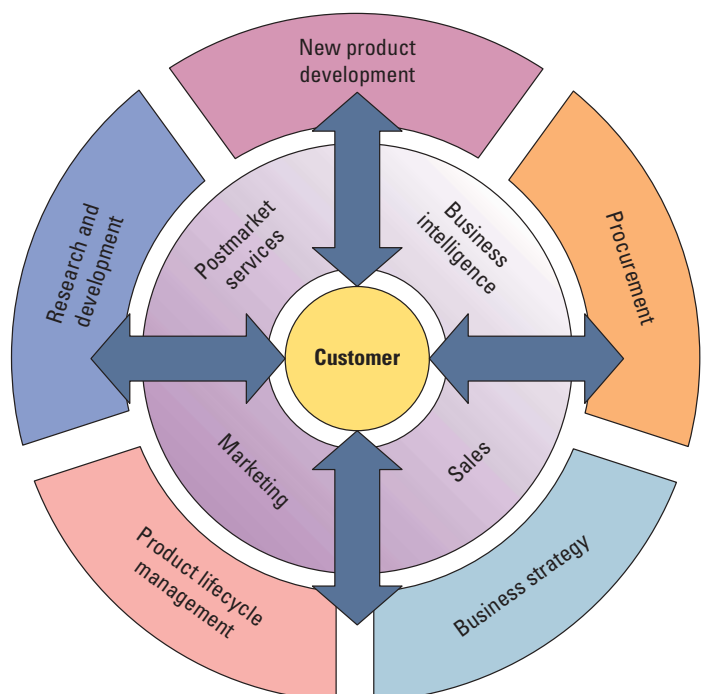
- Why don't you believe it will work?
- Do you think there is not enough data in a transactional environment for Six Sigma to work?
- Are your sales or marketing processes so strong they cannot be improved?
- Are you concerned the people who work in these areas do not have the

intellectual bandwidth, desire or willingness to deal with the slight amount of math that some Six Sigma projects require?

The answers to these questions generally expose prejudices about the value of Six Sigma and how it is applied, but they rarely reveal fact based reasons for rejection. At its core, Six Sigma is all about finding the root cause of a problem and solving it. The same approach should be applied to finding the root cause of skepticism toward applying it to transactional processes. Efficient sales and marketing processes are critically important to business; a defined approach to solving problems there can pay remarkable dividends.

Sales and marketing are closer to customers than are any other business functions and generate the fuel on which businesses run: cash. Meeting customers' desires should be a company's single most important task. Figure 3 illustrates some of these important links. Meeting customer desires should drive the overall strategy of every business. Ultimately, it should determine what a company makes and sells.

FIGURE 3 The Customer Centric Business



Not Enough Data?

The transactional environment is filled with data on: sales, markets, territories, sales representatives and customers. Sales and marketing professionals are constantly pursuing market data and competitive intelligence to determine how well they are fulfilling their customers' unmet needs, how well they are penetrating new environments, and the impact of newly launched products on sales, revenue, customers, and competitors. Six Sigma provides the roadmap to capture this data, analyze it and foster decisions based on it.

Having a customer choose to pay for your product or service over a competitor's is the ultimate goal of any sales or marketing organization. This purchase is the ultimate throughput of multiple process steps, some controllable and some not. Even a slight improvement in the effectiveness of a few of these controllable process steps will lead to the improved throughput of the process. A generic sales process includes:

- Prospecting customers.
- Building rapport.
- Identifying needs.
- Presenting solution(s).
- Overcoming objections.
- Closing the sale.

The ultimate effectiveness of the process is calculated by multiplying the effectiveness of each step. This calculation is called a rolled throughput yield (RTY).

The RTY is analogous to the efficiency of a bucket brigade—a chain of people working to put out a fire by passing buckets of water from person to person. Imagine there are five people in the chain and each one spills 10% of the water from the bucket as he or she passes it to the next person. In other words, each person is 90% efficient at transporting the water. At the end of the chain, the bucket will have lost quite a bit of water. The efficiency of the bucket brigade is calculated by multiplying the efficiencies of each member of the team.

$$0.90 \times 0.90 \times 0.90 \times 0.90 \times 0.90 = 0.591$$

Even though each individual is 90% effective, the team is collectively only 59% efficient; 41% of the water is wasted.

The RTY of the sales process can be similarly calculated.

The RTY also shows how a large overall process improvement can be driven by only slight improvements to individual process steps. If a sales representative is 90% efficient at each step in the sales process, at the end of the process the sales representative will be successful 59% of the time. If

Are your sales or marketing processes so strong they cannot be improved?

the sales rep is able to improve his or her efficiency by only 5% per process step, to 95%, the RTY of the process will improve to:

$$0.95 \times 0.95 \times 0.95 \times 0.95 \times 0.95 = 0.774$$

Just a slight improvement to each step in the sales process has improved sales from 59 to 77%, an improvement of 18%. If a sales process were previously generating \$1 million, this level of improvement would result in an additional \$180,000.

If common, end-to-end process steps are closely observed, documented and studied, and if the data they produce are collected and analyzed, it is possible to identify improvement opportunities within the process. The newly refined process can become a competitive advantage. Once the science of the sales process is identified and documented, more effort can be applied to refining the art of the sale.

Where Can It Be Applied?

There are multiple opportunities to improve sales and marketing processes. Clearly, selling a product to a customer is the most important process in sales and marketing. This is an obvious area to focus Six Sigma efforts, but not the only area.

Additional sales processes that could make use of Six Sigma include:

- Interviewing and hiring successful sales representatives.
- Training sales representatives on both the sales process and the various products and

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services about which they are expected to be experts.

- Defining the most efficient way to manage a sales representative's samples stock.
- Identifying and nurturing the most profitable customers and territories.
- Moving marketing materials through copy review.

These are common processes that both sales and marketing groups need to focus on in order to be successful. None require the magic of relationship building or personal charisma; they just require rigor.

Bandwidth Concerns

Some have insinuated that one reason salespeople avoid Six Sigma is because it is too hard. To suggest sales and marketing professionals can't handle the Six Sigma methodology or the math skills it may require simply does not reflect the profile of successful salespeople.

The financial rewards from a successful sales career are significantly higher than most other professions. The fruits of a successful sales career create competition for those roles. In a competitive market, sales professionals cannot achieve success without strong intellectual capacity. These financial rewards inspire many of the best and the brightest to pursue careers in business, as opposed to law, medicine or science. Successful sales professionals can maintain this lead throughout their careers.

The perceived complexity of Six Sigma is not the reason it has not been successful in sales and marketing. The reason is an unwillingness of sales and marketing leadership to embrace the methodology.

The people involved in transactional processes are often unwilling to adopt a measurement based methodology in a business function they see as being driven purely by relationships and the strength of their personalities. Adopting Six Sigma represents change, and people do not like change, especially change that seems counterintuitive to what has worked for them in the past.

There might be a concern that the attributes and capabilities that have fueled past success—relationship building, creativity and market knowledge—will not be useful in a Six Sigma environment. Salespeople might fear that a lack of math acumen

will be exposed during Six Sigma training. These fears are common, but unfounded.

Those who are able to navigate a successful sales career are equally capable of not only handling but also mastering Six Sigma, regardless of what they studied in college. It is also worth mentioning that very little statistics or math is actually required to employ Six Sigma. Many of the most useful Six Sigma tools—such as a process map or a prioritization matrix—are simple. Both of these tools can drive significant process improvement and do not require any statistics.

The statistical tools that Six Sigma uses are basic and have been successfully taught to millions of nonstatisticians and math phobics. Even though there are plenty of very complex statistical tools, the simple ones usually provide sufficient answers. A carpenter certainly can produce great results with laser guides, pneumatic nail guns and electric compound miter saws, but he can also achieve great results with a hammer, screwdriver and pair of vise grips. The judicious use of simple tools can produce great results.

NOTE

This article is adapted from the opening chapters of *Applying the Science of Six Sigma to the Art of Sales and Marketing*, published by ASQ Quality Press in 2006.

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