

# The Six Sigma Way: Powerful and Smarter Solutions for Sustained Business Success

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Today we are not that interested to know “How to succeed in business?” rather “How do we sustain and stay successful in the competitive world of business?” The business entrepreneurs desperately keen to know about it from the market researchers and business leaders. The 30-second elevator speech from a BPI Black Belt would be “Follow the Six Sigma way – a powerful strategy for changing business performance and sustaining success.”



Considering the global socio-economic scenario, perhaps all the business houses, including the big names in global businesses, are struggling to reach their revenue and operating income targets by implementing improved strategy. The companies and organizations are continuously focusing on improving business processes and thereby looking for appropriate Business Process Improvement (BPI) tools. Any organization is only as financially successful as its processes are appropriately executed. To be able to make the necessary changes in an organization required for reaching the targets, one needs to understand the key processes of the company/organization. The BPI concept leads to understand the process by using different tools including Six Sigma.

**Need for BPI through Six Sigma:** Improving the existing business or for solving any crisis, BPI is a great way forward for any organization, be it a business for-profit, not-for-profit, government or NGO, or any other ongoing concern. Currently all big names in corporate world like Motorola GE, Toyota, Unilever, Reckitt Benckiser, Coke, Samsung, Nielsen and others started implementing BPI, focusing Six Sigma tool. The Six Sigma philosophy and methodology started at Motorola Corporation in the mid-1980's; based on its pioneering work, Motorola holds the trademark for the Six Sigma methodology.



**Definition:** According to Nielsen, “Business Process Improvement (BPI) is a philosophy of continuous improvement of processes in relationship to what customers need and value. It includes a set of methods and tools to increase speed and improve quality by reducing defects. The BPI projects focus on 4 vital stages – (1) understanding customer needs (2) understanding the processes that deliver the products/services to the customer (3) identify gaps or opportunities in a systematic way and finally (4) improving existing processes and design new processes to meet needs. In BPI, defect is any single characteristic that does not meet customer's expectations or requirements.

It should be noted that BPI focuses on "doing things right" more than it does on "doing the right thing". In essence, it attempts to reduce variation and/or waste in processes, so that the desired outcome can be achieved with better utilization of resources and thereby reducing cost, time and energy.

Unlike other traditional tools and methods, traditional market research or TQM or reengineering where series of activities or research were carried out for longer periods for the client, BPI focuses on doing a radical and dramatic change in the performance within the organization very fast, within 3-6 months, involving the people within the organization (not to impose the changes to them or organization) and sowing the sustainable result to the client or end beneficiary(s). This gives ownership to people involved with the exercise and helps sustaining the program.

## BPI Components

There are three components which play important roles in undertaking any BPI projects – customer, processes and teams.

**Customer:** In carrying out any projects, customers play a critical role. The customers can be internal (i.e. within the organization, departments, units etc.) or external (i.e. clients for example Coke, Uniliver, Unicef, University etc.). During assessing the performance of the processes, it is always to be done from the customer's point of view, addressing customer's interest and need based on their defined value and quality. The project should be planned in such a way so that it impacts the client most.

**Processes:** All works can be considered as a sequence or flow of activities i.e. a process, which converts inputs into outputs. Therefore, when we try to understand the problems or gaps between actual work and expected work, we look at all the required steps in the process or value stream (i.e. all activities both value added and non-value-added, should yield a product or services to customer).

**Teams:** In BPI, teamwork is the driving force and the team members are interdependent in any change or improvement of any processes. The team should be involved in all the stages of work and should take the ownership. Usually the roles and responsibilities are clearly identified and defined while designing the process especially during the *Kaizen* event coordinated by a Black Belt/Master Black Belt.

## What is Six Sigma?

Sigma is a statistical and systematic philosophy of continuous improvement with a goal of near perfection, i.e. no defects and minimal variation. The concept represents the amount of variation present in a process relative to customer requirements or specifications i.e. reflect how well the processes meet customer requirements. The higher the sigma level (maximum 6), the better the process is performing relative to customer requirements. If we want to decrease the amount of variation from the target and reducing defects, we will have to increase sigma level. Higher sigma level reflects greater predictability in the process, reduces variation and defects, less waste and rework (which reduces the cost), results better performance of products and services and ultimately ensures satisfied customers. When a process operates at a six-sigma level, the variation is so small that the resulting products and services are 99.9997% defect free i.e. no more than 3.4 defects per million opportunities (DPMO).

Amount of Variation	Effect	Sigma Value
Too much	Hard to produce output within customer requirements or specification	Low (0-2)
Moderate	Most output meets customer requirements	Middle (2-4.5)
Very little	Virtually all output meets customer requirements (less than four parts per million not meeting specifications)	High (4.5-6)

Source: GOAL/QPC, USA

There is another approach called **Lean** which is a continuous process of improvement ensuring high quality products and services, delivered with speed at low cost. The goal is to reduce waste and cycle time.

## Benefits of Six Sigma

In broad, the types of business success may be achieved by implementing Six Sigma include cost reduction, productivity improvement, market share-growth, customer retention, cycle-time reduction, defect reduction, culture change and development of products and services.

Six Sigma is, therefore, used as performance tracking tools, focusing attention on process management at all organizational levels, improving the efficiency and effectiveness of the processes by aligning with customers' needs and finally developing new and improved processes meeting customers' requirements.

### Six Sigma Methodologies

Before implementing Six Sigma methodology, we must understand two elements (1) how existing process operates (i.e. all the series of activities) and (2) the customers requirement i.e. critical to quality (CTQ). It may be mentioned here that, though Six Sigma methodologies are apparently similar to other methods, but it emphasizes more on quality and speed which are extremely critical to customer, using rigorous statistical methods, and involving the team during investigation and implementation phases.



There are basically two methods introduced in Six Sigma – DMAIC and DMADV. To achieve Six Sigma, a business must excel at managing existing process management by monitoring and controlling existing organization's process, incrementally improving existing processes through DMAIC (Define, Measure, Analyze, Improve and Control).

DMADV (Define, Measure, Analyze, Design and Verify) is the design methodology used to design a new product, service or process that does not currently exist, or redesign a product, service or process when incremental improvement is not enough.

Linking these two methodologies proves to be most effective way for any organization to achieve its Six Sigma goals. The comparative difference between the two methods is given below:

DMAIC	DMADV
DEFINE: Define the project's purpose and scope; identify problem/reason for the project, and map the value stream steps. Collect baseline information and understanding customers' needs.	DEFINE: Define the problem/reason for the project and acknowledge risks; develop organizational plans
MEASURE: Measure the current situation and populate the value stream map with baseline data/information	MEASURE: Gather Voice of the Customer (VOC) data to develop Critical to Quality metrics (CTQs)
ANALYZE: Identify and confirm root causes of defects and confirm with data	ANALYZE: Identify, analyze, and select design concepts that will meet the CTQs within budget and resource restraints
IMPROVE: Generate and implement solutions and evaluate results that addresses root causes	DESIGN: Create the detailed design and prepare to pilot and full scale deployment
CONTROL: Maintain the gains, sustain the improvement plans and preserve the lessons learned from the exercise.	VERIFY: Conduct and evaluate the pilot, conduct full scale implementation, set up the control plan and transition to the process owner to maintain the gains

Source: Nielsen; GOAL/QPC, USA

### Key Considerations

**Alignment of processes with business goals:** For any business process improvement exercise, it is essential for any organization to design its strategic goals in such a way so that it is integrated with balanced scorecard. With a view to use Six Sigma, the processes should fit in with the balanced scorecard.

**Customer centric:** Understanding the customer needs through “voice of customer” is imperative for better designing the project. This will ensure aligning business processes to achieve higher customer satisfaction.

**Benchmark information:** Emphasis is given on "measurable results". Therefore, benchmark data/information (i.e. baseline information/data) is used for doing situation analysis. For any impact assessment due to BPI intervention, baseline data is required. Benchmark data can be procured internally (within the organization), or externally (from other competing / noncompeting organizations) or from secondary sources.

**Establish process owners:** The process owner is the person who is responsible for the ongoing monitoring, control and improving the process, who is also responsible for the creation, update and approval of documents (procedures, work instructions/protocols) to support the process. The process owner is continually involved with the team as they use *Kaizen* mechanism to continually improve the process as they are performing the work.

## Conclusion

Therefore, it can be said, business process improvements through the power of Six Sigma methodology can transform any company to one of the most successful companies. The Six Sigma initiative can save billions of dollars due to rework and misuse of energies, ensure dramatic increase in speed and quality and ultimately enhance strong customer relationships, and build strong brand image! Most importantly, it creates a happy and delighted customer, both internally and externally!

## References

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