

# Six Sigma & Agile

How they can work together



**INSIGHTS**

## Can Six Sigma and Agile work together?

More organisations are starting to use Six Sigma and Agile approaches. In the last decade, technology has been at the forefront of our daily lives, both at work and at home. No matter what task it is, everyone would instantly say, "There's an application for that." Technology is a major influencer of consumer behaviour.

If your company doesn't innovate, it will only be a matter of time before your customer finds another solution. Customers expect companies to deliver fast and provide high-quality services. If you don't deliver both, your customers will go elsewhere.

Six Sigma and Agile are both approaches that allow companies to deal with consumer market demands. They also help them excel in their industry. These two methods are different in terms of their goals and implementation. They are rarely used together. However, the question arises, could Six Sigma and Agile be used simultaneously by companies?

In this article, we will outline Six sigma and Agile approaches. We will also explain how these two methodologies can be combined. This way, companies can improve their processes while delivering better products and services.



## What is Agile?

In software development, Agile is defined as practices that include requirements discovery and solutions improvements with the combined help of user stories, test-driven development, continuous integration, and deployment. It is based on the idea that the best products and services come from a collaboration between developers and users.

The goal of Agile is to create a working system within a short period of time. Agile is not just about coding. It is more than that. It is about creating a culture where people collaborate and share ideas. Agile focuses on improving quality through iteration. Iteration means that the team works on a small piece of code or functionality.

After each iteration, the team tests the new version. Then, if necessary, they make changes to the previous version. When all iterations have been completed, the team releases the final product.

## What is Six sigma?

Six Sigma is defined as the set of techniques and tools for business process improvement. The term was introduced by American Engineer Bill Smith while working for Motorola.

Six Sigma was initially devised to reduce defects in manufacturing processes. Defects are any errors made during production. A defect may occur because of human error or mechanical failure. To avoid such problems, Six sigma encourages the use of statistical methods to identify occurrence of potential problems. Once identified, the problem should be fixed immediately.

Six Sigma helps companies to achieve higher levels of quality. It allows companies to focus on eliminating defects rather than finding ways to fix them.

## How do they differ?

Both Six Sigma and Agile approaches involve the same principles:

- Focus on Quality
- Continuous Improvement
- Collaborative Processes

However, there are some differences between the two.

First, Agile focuses on developing a product or service quickly. It involves iterating over multiple cycles. In contrast, Six Sigma focuses on reducing defects in the manufacturing process.

Second, Agile emphasizes testing and feedback loops. In contrast, Six Sigma accentuates statistical analysis and control charts.

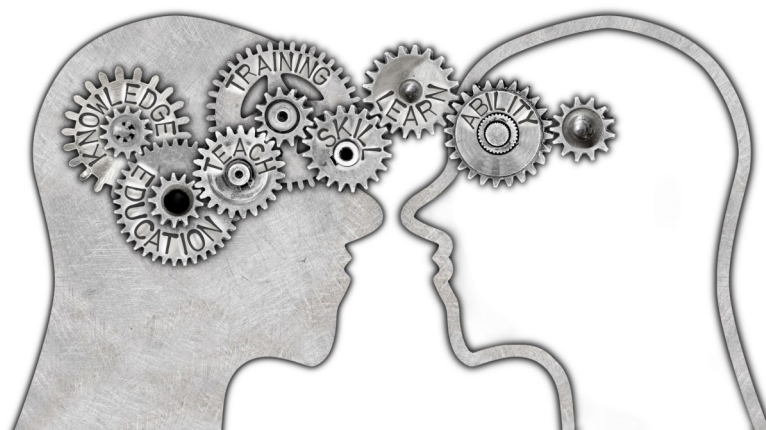
Third, Agile use lean principles to develop its products. Lean principles focus on the elimination of waste. On the other hand, Six Sigma focuses mainly on reducing defects (although can also focus on waste elimination when combined with Lean – Lean Sigma). Finally, Agile emphasises customer involvement. In contrast, Six Sigma predominantly focuses on internal customers.

## Combining Six Sigma and Agile

There are many benefits that an organisation can achieve by combining the two methodologies. For example, it improves communication among stakeholders. It also increases the speed at which projects are delivered. Moreover, it reduces costs and risks.

Combining Six Sigma and Agile is possible if they are viewed from different perspectives. These methods are not the end-all solution. They are tools that can help organisations improve their processes to provide greater value to customers.

Combining Six Sigma and Agile can be difficult as it requires practitioners with experience and knowledge of both approaches and a greater understanding the basic principles of each, having successfully implemented them separately across various projects.



Teams using Six Sigma or Agile methodologies can have a tendency to focus more on following the rules than understanding their underlying philosophies. Just because you're using DMAIC doesn't necessarily mean you're successfully implementing Six Sigma. Likewise, having an approved Scrum Master (the conductor of several prescribed Agile activities) conducting daily stand-ups doesn't mean the team are correctly following a Scrum approach or that they are Agile. Before combining Six Sigma and Agile methods, organisations must first decide what they're trying to achieve or fix and whether using these two methods can help them achieve that goal.

### Can Six Sigma and Agile coexist?

Agile and Six Sigma are complementary practices, and it is possible that these can co-exist in an organisation. The key is to understand the balance between rigour and flexibility. If your company has adopted one methodology, it's important to ensure that you don't lose sight of the other. This means that you should be able to identify where the two methodologies overlap and where they differ. You should also be able to explain how the two complement each other.

You may find that adopting both Six Sigma and Agile will require a change in mindset from your team members. Some people may feel uncomfortable with being flexible, while others may feel uncomfortable with the concept of quality assurance. Therefore, it is essential that you communicate clearly about the changes required to adopt both methodologies.

### How to Implement Six Sigma and Agile Together

The best way to implement Six Sigma and Agile collaboratively is by starting small and gradually expanding the scope of work. Start with a single project or process improvement initiative. Once you've completed the project, evaluate its success. If the results are positive, expand the scope of work to include additional initiatives.

If you want to start with a bigger project, consider starting with a pilot programme. Pilot programmes allow you to test new ideas before rolling them out across the entire organisation.

The next step would be to create a plan for continuous improvement. To do this, you'll need to define the problem, establish goals and objectives, and develop strategies for achieving those goals. DMAIC (Define, Measure, Analyse, Improve, Control) provides an excellent framework for defining the issues and programme objectives.

Once you've established a baseline, you can begin measuring progress towards your goals. For example, if you want to improve customer satisfaction, you could measure the number of complaints received from customers.

In addition to establishing measurable goals, you'll also need to determine which metrics matter most. Metrics such as cost per unit sold, revenue, profit margin, and customer retention rate are all useful indicators of performance. However, metrics need to be appropriate to what you are trying to achieve. In some instances, a metric measuring customer satisfaction may be more important than one measuring sales volume.

After you've identified the metrics that matter most, you'll need to figure out how to collect data. There are many ways to gather information, but the most common approach involves using existing data sets or collecting data through surveys. Both provide a quick snapshot of current conditions and give an insight into areas where improvements are needed.

Next, you'll need to analyse the results. Analysing the data allows you to spot trends and patterns. These insights can help you make better decisions and take appropriate action.

Finally, you'll need to decide what actions to take based on the analysis. You could choose to adjust existing processes, add new products or services, or even launch a new product or service.

The bottom line is that there is no right or wrong way to implement Six Sigma and Agile. It depends on each individual situation and the resources available.

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#### References

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