**INVESTIGATION OF THE SCRUM AND SIX SIGMA APPROACHES FOR MANAGING PROJECT MANAGEMENT DELIVERY IN THE IT INDUSTRY**

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# Chapter 5: Conclusion

## 5.1 Introduction

This is the final chapter of the research. It focuses on the details insight to complete the project or the research. This represents all of the details of the summary of the research. It fulfills the summary of the research. That makes the optimal path to the success of the research. This chapter covers the finding of the research. It makes the best possible news to complete the research in a particular way. It meets or satisfies the linking with the objective a part of the research. It brings the best of the possible chances to complete the project. This chapter even provides a recommendation section that meets the purposes of the research. The limitation part is also included here to complete the structure of the research. This section also meets the research finding that makes the efficiency of the research.

## 5.2 linking with Objectives

This chapter is very important that displays the chances to satisfy the objective part of the research. It brings the approach that meets with the objectives of the research. This chapter also included the best way that makes the proper efficiency the research. That offers the proper framework for the research.

**To investigate the Scrum and Six Sigma methods.**

The information-driven Six Sigma methodology focuses on reducing surrenders and improving cycle execution. The viability of Six Sigma in working on various aspects of hierarchical execution, such as customer loyalty, productivity, and financial execution, has been demonstrated by a few studies. Additionally, Six Sigma has been utilized in a variety of industries, including manufacturing, administration, and medical care. On the other hand, Scrum is a spry strategy used in programming headway to regulate projects. The principles of simplicity, investigation, and variation underpin Scrum (Heimicke *et al.* 2020). It has been applied in various organizations' past programming improvement, such as advancing, clinical consideration, and preparing. There has been some investigation into the possibility of combining Scrum and Six Sigma. A couple of assessments recommend that the blend of Six Sigma and Scrum can achieve a greater method for managing process improvement and errand the board. Scrum, on the other hand, can be used to create and implement plans, while Six Sigma can be used to identify and measure problems.

**To find differences and similarities between six sigma and Scrum.**

**Similarities between six sigma and Scrum**

Six Sigma and Scrum, both are used in the manufacturing process. Both of them are used for the improvement of the operation process of the task. They are used for the better quality of the products and also focus on reducing waste (Mahajan, 2019). That makes the process efficient. This process aids to reduce the defects that provide the optimal chances for the options process in the building of the products.

**Figure 1:** **Similarities between six sigma and Scrum**

(Source: Self-created)

**Differences between six sigma and Scrum**

|  |  |
| --- | --- |
| Six Sigma | Scrum |
| Six Sigma also focuses on controlling the method of the system. This even reduces the seismic error from the system. | Where Scrum assists in the development of the software that impacts the working process of the software. This follows the repetitive progress of the method. |
| It is established on the DMAIC principle. | This is established on the Agile principle. |
| Here are no requirements for the teammates. | Here is also a need for good teammates. |
| This also improves the process of the system with the help of the elimination of waste. | This process also analysis the project in the form of sprints. |

**To find out which method among Scrum and Six Sigma is followed more in the IT industry.**

The IT sector has used these two approaches for a long time. Over the course of the last many years, the deft technique is viewed as the most involved procedure in the IT business. The Scrum and Six Sigma methodologies of today have replaced them. The IT sector reaps the benefits of the two approaches. The scientists are tracking down ways of making a half-and-half model which will contain both the Scrum and the Six Sigma systems and carry out them in the IT business. Combining various software development methodologies has frequently made it possible for IT teams to achieve specific objectives. In fact, IT teams combine various software techniques to take advantage of their strengths. In an effort to increase team productivity, customer satisfaction, and the software development process, new performance and managing staff ideals and ideas are occasionally combined with tried-and-true software development methods. Six Sigma is one of the industry's best methods because it focuses on achieving predetermined objectives like quality management, customer satisfaction, cost reduction, and quality improvement (Wittman and Brown, 2020). Six Sigma is regarded as a strategy for organizational transformation that encourages the development of managerial talent within a business. IT projects have of late utilized this logic. Agile software development methods appear to attach to the same principles and goals as Six Sigma, which was their foundation. Thusly, consolidating these two methodologies may be valuable. However, this may lead to overheads for agile development that depart from quick processes' fundamental principles. The purpose of this investigation was to determine how effectively the IT sector utilized the Six Sigma methodology.

**To find a way to implement both Scrum and the Six Sigma methodology together in the IT industry.**

For the purpose of research and application, the Lean and Six Sigma strategies were consolidated. In the middle and latter part of the 20th century, Toyota, Motorola, and General Electric utilized Lean Six Sigma (LSS) extensively in the manufacturing sector. From that point forward, the methodology has been broadly utilized in banking, medical care, and government the board. The company's nature necessitates a significant shift in success methodology, according to these implementation studies. The market for computerized emerging innovations (DE-TECH) is rapidly expanding in both size and significance for social everyday life. When compared to more conventional industries like transportation, retail, and construction, the information technology industry as a whole is accelerating economic growth. Based on the findings, the LSS training strategy should be reorganized to employ a more effective cumulative, prioritized, on-the-job training approach and the LSS methodology should be renamed to reflect the company's shared values. Additionally, these previously acknowledged essential success factors are frequently present (Vaštakaitė, 2022). To assist the team in comprehending and providing the best solutions, numerous software methods, such as Waterfall, Incremental Prototyping, Agile, Lean Software Development (LSD), and hybrid Lean-Agile, have been developed. All in view of similar objectives: to raise quality, satisfy client needs, transport programming all the more rapidly, and save on updates. In an effort to increase team productivity, customer satisfaction, and the software development process, new performance and managing staff ideals and ideas are occasionally combined with tried-and-true software development methods.

**Figure 2:** **implementation diagram**

(Source: Self-created)

Perhaps of the best technique in the business, Six Sigma focuses on arriving at foreordained objectives like quality administration, consumer loyalty, cost decrease, and quality improvement. Six Sigma is regarded as a strategy for organizational transformation that encourages the development of managerial talent within a business. This way of thinking has recently been used in projects involving IT.

## 5.3 Recommendation

Both practices have positive effects on the IT industry. The researchers are looking into ways to create a half-and-half model that uses both the Scrum and Six Sigma methodologies in the IT industry. Consolidating different programming advancement techniques has habitually made it workable for IT groups to accomplish explicit goals. In fact, IT teams utilize their strengths by combining various software techniques (Ussui, 2021). New performance and management staff ideals and concepts are occasionally combined with tried-and-true software development methods in an effort to increase team productivity, customer satisfaction, and the software development process. Six Sigma is one of the business' best techniques since it centers on accomplishing foreordained targets like quality administration, consumer loyalty, cost decrease, and quality improvement. A strategy for organizational transformation known as Six Sigma encourages the growth of managerial talent within a company.

## 5.4 Conclusion

A summary of the study of the research is suggested in this chapter. This meets the research objectives that make the efficiency of the research. It displays all the possible chances to satisfy the research. It allows the purposes to the meeting stage of the research. The linking with the objectives parts is very important to satisfy the goals of the research. It makes all of the changes that help to provide a proper conclusion a part of the research. Consolidating different programming advancement techniques has habitually made it workable for IT groups to accomplish explicit goals. In fact, IT teams utilize their strengths by combining various software techniques. New performance and management staff ideals and concepts are occasionally combined with tried-and-true software development methods in an effort to increase team productivity, customer satisfaction, and the software development process. Six Sigma is one of the business' best techniques since it centers on accomplishing foreordained targets like quality administration, consumer loyalty, cost decrease, and quality improvement. A strategy for organizational transformation known as Six Sigma encourages the growth of managerial talent within a company.

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