

Analytical Overview of Six Sigma Applications as a Management Tool

6σ

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SIX SIGMA IS
CONSISTED OF
MANAGEMENT
TOOLS AND
PROCEDURES
INSTALLED TO
SUPPORT BUSINESS
BY REDUCING
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PROBABILITY OF
ERROR.

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INTRODUCTION



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revolution is the most significant development of this decade. Novel technologies and innovative tools are boosting the transformation of all kinds of businesses, which strive to gain their place in a fast-paced competitive

environment. Even though digital transformation accelerates a company's progress, it needs to be equally enhanced by management strategies of quality control and risk assessment. Following the movement of emerging technologies and methods, the American company Motorola discovered a new model of quality management approach in 1986. Through the years, this model was improved and refined, becoming an integrated methodology of principles and processes, focused on business transformation. The final product is called Six Sigma.

DEFINITION

Six Sigma is consisted of management tools and procedures installed to support business by reducing risk and the probability of error. It is a data-driven technique based on a statistical method aimed to eliminate threats.

The etymology is based on the Greek symbol "sigma" or " σ ", a statistical term for measuring process deviation from the process mean or target. "Six Sigma" comes from the bell curve used in statistics, where one Sigma symbolizes a single standard deviation from the mean. If the process has six Sigmas, three above and three below the mean, the defect rate is classified as "extremely low".

The graph of the normal distribution below underscores the statistical assumptions of the Six Sigma model. The higher the standard deviation, the higher is the spread of values encountered. So, processes, where the mean is minimum 6σ away from the closest specification limit, are aimed at Six Sigma¹.

[1] Kumar, P., (2020, September). What is Six Sigma: A complete overview. Simplilearn Solutions.

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