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Boosting culture advancement when reinforcing cornerstones of statistical thinking

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Turning data into accurate decision support is one of the challenges in the daily organizational life. There are several aspects of it related to variation in the interaction between technology, organization, and humans, where the normal managing and engineering methods based on an outside-in perspective of system development does not always work. Problems such as lack of common understanding if the selected metrics really address the right problem, and how and to whom it should be visualized or if the data collected have the right precision.

The development @ the Volvo CE plant in Arvika since 2010 has been assisted with a systematic and persistent focus to enrich the common mindset and language on basic statistical concept throughout the factory organization. The purpose has not only been to educate Black Belts and practitioners on the statistical details in the methodologies, but also on the combined effect of applying the tools and concepts to support an understanding of what is needed to build a continuous improvement culture in an organization: Visualization of variation in terms of process stability, common understanding of data quality and a vivid discussion of what to measure to drive the right development. In other words, to increase the understanding of what is needed to develop a system from the inside, which no one really sees from the outside. The Arvika plant has evolved from being one of the laggards to be one of the forerunners in Volvo CE during decade partly supported by the evolvement of the commonly grounded statistical thinking that occurred in three phases: establishment of a joint understanding and practices of data quality, common understanding of the need of stabilization in all processes and visualization of cross-organizational flows. The culture change has been slow drift based on a network of interactions rather than a sudden change depending on a single key component unlocking the daily organizational behavior. Here an attempt is made to capture the mycelium of statistical thinking to learn how to sustain it and identify the right statistical thinking energizers.

Keywords

Statistical thinking, culture change, continuous improvements

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