

A Conceptual Modality for Pursuit of Statistical Process Control (SPC) in Manufacturing Facilities

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ABSTRACT

Strong operations & management support are the key requirements for competitive success of modern manufacturing organisations. This paper presents one of the most significant and valuable aspect of operations support, quality technique Statistical Process Control (SPC), being used in manufacturing facilities with the comprehensive objective of enhancing them to improve on quality and cost effectiveness. The advantage of these tools is that these can identify the critical effects of the processes that cause unnatural variability in production that result of wastage and poor quality. The paper focuses on Critical Success Factors (CSFs) and framework to implement SPC in manufacturing facilities as tools like Hotelling T^2 , Pareto Analysis, capability index, histogram, control charts, etc. can effectively identify the anomalous variability in the process and thereby contribute to quality enhancement and overall improvement.

Key Words: Quality, SPC, Hotelling T^2 , Pareto, Control charts, Process capability.