LEAN SIX SIGMA TO IMPROVE IT PROCESSES AND SERVICES

Galia Novakova, Faculty of Mathematics and Informatics, Sofia University,
5 James Boutchier Street, 1164 Sofia, Bulgaria, galianovak@gmail.com
Nasr-Eddine Dahel, Graduate School of Business & Public Policy, Naval Postgraduate School,
555 Dyer Road, Monterey, CA 93943, 831-656-2187, edahel@nps.edu

ABSTRACT

This note describes Six Sigma as a measurement-driven approach to continuous process improvement that focuses on reduction of variation, consistency and high product quality. While Six Sigma helps in developing detailed work instructions and defines methodologies for continually mapping, measuring and improving the quality process, it does not tell what to do nor does it specify any best practices specifically for Information Technology Service Management (ITSM).

Keywords: Lean Six Sigma, IT process and service improvement, IT infrastructure library, integration

INTEGRATION OF LEAN SIGMA IN IT AND SERVICE PROCESSES

A wide range of companies have found that when the Six Sigma philosophy is fully embraced, the enterprise thrives. The literature is replete with examples of projects that have returned high dividends to the organizations involved. There is, as a result, interest in using the Six Sigma approach to implementing Information Technology Service Management (ITSM) and creating quality standards to design, deliver, and manage Information Technology (IT) services to meet or exceed an agreed level of quality.

While Six Sigma helps in developing detailed work instructions and defines methodologies for continually mapping, measuring and improving the quality process, it does not tell what to do nor does it specify any best practices specifically for ITSM. Information Technology Infrastructure Library (ITIL), on the other hand, can inform IT management what needs to be done and how it will get done from the process perspective. As such, ITIL defines the "what" of service management and Six Sigma specifies the "how" of quality improvement. Together, they make a great combination for improving the quality of IT service delivery and support.

By integrating the Six Sigma quality management approach, IT managers will have the methodology and tools for measuring quality and improving processes. Adopting Six Sigma principles also helps IT managers focus on supporting their business strategy and customers, manage proactively based on facts, and reinforce collaboration across the enterprise.

The present paper discusses an integration framework approach. The framework in our exploratory experience based research has been built upon a deductive study which has been developed through a literature review and synthesis and an exploratory inductive research which has been developed using a qualitative case study methodology in the e-services and mobile applications fields.

The rise of services oriented architecture, client server computing, virtualization and distributed applications have created a plethora of moving targets in the IT organization. Traditionally, IT organizations had dealt with business entities that have historically been subdivided into functions or departments and thus unable to function as fully integrated organizations. Recently, with the adoption an enterprise-based approach, IT managers need to shift their organization strategies from being technology-based organizations focused on cost minimization to service providers and contributors focusing on value creation and maximization for the entire enterprise.

CONCLUSION

A lean Six Sigma approach can be used to improve IT processes and services. Such an approach requires that IT support the enterprise's business strategy, not just that of the IT organization. Furthermore, technology organizations must develop integrative processes, and technological resources capable of delivering solutions and procedures that maximize value for the entire enterprise.