2016

Application of Quality Tools to Characterize Patterns in a Workers' Compensation Claims Database

Sai K. Ramaswamy
Iowa State University, sair@iastate.edu

Gretchen A. Mosher
Iowa State University, gamosher@iastate.edu

Thursday, November 3, 2016

Management

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Author(s)
Mr. Sai K Ramaswamy
Iowa State University, Ames, IA
Dr. Gretchen A Mosher
Iowa State University, Ames, IA

Need: Excessive medical and liability costs are two of the seven deadly diseases outlined by Deming as major barriers organizations must overcome to achieve total quality and continuous improvement goals. The opportunity to apply quality tools to a large database of workers' compensation claims were presented to researchers. Analysis of the claims data allowed researchers to identify root causes and characterize workplace injury patterns. Quality tools and techniques were used to scientifically and systematically analyze claims to detect possible causes and mitigate risks. While analysis of a single event using quality tools have been completed, this work explored the application of quality tools to analyze a large database of incidents to help detect potential safety risks.

Overview: Kaoru Ishikawa suggested that the majority of process-related problems could be resolved using seven basic quality tools. Despite major changes in the nature and volume of process data witnessed in recent times, the basic quality tools and techniques continue to be widely popular methods of analyzing process variation and examining root causes. This presentation will discuss how a large workers' compensation claims database was converted into useful decision-making metrics using basic quality tools and techniques.

Major Points:

- Description of the workers' compensation data-set
- Application of root-cause analysis in the characterization of workplace injuries
- Factors and challenges in the use of quality tools for continuous safety improvement
- Scope of future work

Summary: Attendees will understand and appreciate the wider applicability of quality tools to not just solve technical problems in the manufacturing process but also other challenges across the business, specifically in using a large database to manage and characterize a firm's safety performance.