

# **Improving Supply Chain Information Sharing Using Design for Six Sigma**

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## **Abstract**

### **Purpose**

Accurate and reliable information is needed to support decision making processes. Due to the large number of participants typically involved in supply chain operations, organizations often find that it is difficult to effectively share information within a supply chain; hence, this research examined ways to improve information sharing within supply chain operations for one marine transportation services organization.

### **Design/methodology/approach**

An action research, case study approach used the Design for Six Sigma (DFSS) methodology to design an information technology solution that effectively communicates information between the layers within the supply chain regarding the movement of materials via inland tank barges.

### **Findings**

The comparative analysis of verification and baseline measurements conducted suggests this project was successful because the new process fulfilled the needs of the work environment for which it was designed.

### **Research limitations/implications**

Because this case study was conducted in only one organization and utilized a specific DFSS approach, the results obtained from this research may not be generalizable to all organizations/design projects.

### **Practical implications**

For the organization that participated in this research, the successful adoption of the new approach for information sharing improved communication and decision making within their supply chain.

**Originality/value**

The approach for sharing information developed through this research further supports the value of using DFSS in service environments, and it demonstrates, likely for the first time, how this method was successfully applied in marine transportation services.

**Keywords:** Design for Six Sigma, supply chain, transportation, information sharing, case study