

## **Chaos Theory: Can We Use It To Our Advantage In Supply Management?**

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### **Abstract**

*Brief Description of Session 50 words or less*

Can we apply the principles of chaos theory to managing the supply management function? This presentation will explore the extent of chaos in areas such as demand, forecasting, supply chain management performance, supplier stability, and cost/quality improvement. Attendees will be able to apply the learning in identifying, assessing, mitigating and eventually eliminating it in their organization.

*Detailed Description 200 words or less*

Chaos Theory may have a direct application for Supply Management. Taken loosely, chaos is a naturally derived outcome that is manageable by organizations. Companies in industries such as semi-conductors, chemicals, agriculture and apparel experience wild swings in demand, supply, and customer requirements. Airlines experience peak loads in vacation and holiday travel. These changes result in chaotic situations in companies in these industries, which are then passed down to suppliers and impact how suppliers are managed. Ultimately these situations cause costs to increase, and quality and delivery performance to decrease. Supply management personnel and suppliers react to chaotic situations in different ways. Chaos, like conflict, must be managed in a straightforward manner.

Supply Management can present short term and long term performance deterioration by instituting common chaos management processes in their organization. Some of the same steps used in risk management can be used, as well as innovation/creativity with supplier and cross-functional participation.

A key concept to be examined is how to channel the chaos into improved productivity, enhanced supplier relationships and reduced total costs.



Chaos, then, can provide power to your organization — it's all in how you identify, assess, and manage it!

**Objectives:**

- Learn Chaos Theory
- Understand Tools to Leverage Chaos
- Develop Plans to Improve Performance

*Brief Description of Session 50 words or less*

**Managing Your Supply Base for Continuous Improvement**

Suppliers are the backbone of industry today. Failure of the supply base to meet goals and improve performance in the areas of cost, quality, and delivery, will cause lower customer satisfaction, high total cost, and denigrating organizational performance. This presentation will describe ways of developing continuous improvement programs with suppliers, along with best-in-class examples.

*Detailed Description 200 words or less*

It is a well-known fact that suppliers can account for 60-70% of an organization's costs. Further, supplier quality and delivery performance heavily influence the quality and timeliness of the end product/service. Organizations must work closely with suppliers to continuously improve performance so that total costs can be better managed. Few companies have successful continuous improvement programs due to lack of resources, poor evaluation systems, lack of audit follow-up, question about supplier attitude and cooperation and insufficient processes to ensure improvement. Major gaps such as these will be identified along with a structured model to be used to ensure an effective closed-loop continuous improvement process. Examples from automotive, banking, high tech, and aerospace industries will be described, and a model will be used to assess each example for completeness and results.

**Objectives:**

- Learn Continuous Improvement Tool
- Understand Methods to be Used to Improve Performance
- Review Best-in Class Practices to Improve Suppliers

Attendees will identify blockers and enablers in their organization so that appropriate actions can be initiated to develop a more effective CI process and approach, including goal setting for their own applications/industries. Knowledge Management solutions will also be presented.



## Evaluating and Assessing Your Supply Chains

### *Brief Description of Session 50 words or less*

This workshop will provide a tool that can be used to flowchart specific supply chains. Examples of efficient and inefficient supply chains will be offered along with best practices from various industries. Attendees will use the tool to describe a key commodity segment and identify key cost, quality, and lead time drivers.

### *Detailed Description 200 words or less*

Supply Chain Management describes the activities/processes/steps associated with planning for, ordering, delivery and use of supplier provided products and services. When analyzing these sequences of activities, supply management must evaluate all the activities of the chain including customer needs identification, early involvement, forecasting, order fulfillment, supplier selection, order release, transformation lead time, transportation, and installation/service. Few tools exist that allow for the depiction of supply chains from a cost, delivery, and quality perspective. The flow of physical product/service must be described as well as the flow of information for a complete assessment. This session will describe the process of defining supply chains and offer a software tool that can be used to adequately portray specific supply chains. Attendees will experiment with this tool and understand it well enough to put it in place at their organizations. Examples from both manufacturing and service industries will be presented. The usefulness and value of the supply chain information will be provided and attendees will apply this data to their own industries.

### Objectives:

- Learn Supply Chain Model
- Understand how to evaluate cost, quality, and lead times of supply chains
- Apply supply chain model and measures to their own industries

