

## Supplementary Technical Material

### Module #1

# SUPPLY CHAIN MANAGEMENT

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## 1. INTRODUCTION

We refer the reader to section 1.5.7 of the book “Control System Design” and, in particular to Table 1.1 on page 15.

These notes are concerned with Level 4 of the control hierarchy shown in Table 1.1, i.e., plant wide optimization. One can expand this concept to embrace optimization of the operations of a company considered as a whole. Indeed, it may be desirable to consider the way that a plant fits into the entire company operations since the optimal strategy for a single plant may not be optimal for the company when considered as a whole.

“*Supply Chain Management*” is a term that is used to describe the optimization of factors which impact on the delivery of products and services to customers in a way that brings mutual benefit and reward to the company and its customers.

In a sense, “*Supply Chain Management*” is simply a term for the key factors involved in running a company and is thus inseparable from the usual responsibilities of company managerial staff. Moreover, much of the work is undoubtedly best left to experience and common sense. However, “*Supply Chain Management*” aims to provide tools and guidelines which are aimed at aiding managers to optimize company operations so as to achieve world’s best performance.

As in all aspects of management and control, there will usually not be one single best answer to these questions. However, there may well be certain strategies that are markedly superior to others. “*Supply Chain Management*” aims to find these winning strategies.

“*Supply Chain Management*” is a large topic. Indeed, there are many Departments in Universities around the world dedicated to this topic. These Departments typically offer undergraduate programs, MBA’s and sometimes Doctoral degrees in areas such as:

- ◆ Marketing
- ◆ Supply Chain Management
- ◆ Logistics
- ◆ Operations Management
- ◆ Procurement/Sourcing
- ◆ New Product Development/Innovations
- ◆ International Business

◆ Electronic Commerce

These notes (in the form of PowerPoint® slides) are intended to give a brief overview of “*Supply Chain Management*”. The notes are intended to acquaint managers and engineers with this field of study so that they can make informed decisions about the extent to which they need to embrace these methods in the operation of their business unit or company.

The notes are in the form of a set of PowerPoint® slides. This has been done so that they are easily readable in summary form and so that they can be incorporated as a small teaching module in other courses, e.g., a more general course on “Control System Design”.