

Table of Contents

1	FUNDAMENTALS OF SUPPLY CHAIN MANAGEMENT	1
1.1	ORDER MANAGEMENT, LOGISTICS, AND SUPPLY CHAIN MANAGEMENT .	1
1.2	MAIN TOPICS IN SUPPLY CHAIN MANAGEMENT	7
1.2.1	Principles	7
1.2.2	Tasks and Competencies	10
1.2.3	Interfaces and Complexity	11
1.2.4	Cooperation	16
1.2.5	Types of Supply Chain Management	19
1.2.6	Methodology of the Supply Chain Council	21
1.2.7	Potential Benefits and Controlling	21
1.2.8	Possible Obstacles	23
1.3	SOFTWARE SUPPORT FOR SUPPLY CHAIN MANAGEMENT	26
1.3.1	Enterprise Resource Planning Systems	26
1.3.2	Supply Chain Management Systems	27
2	APPLICATION SYSTEMS IN THE INDIVIDUAL BUSINESS FUNCTIONS	30
2.1	ENGINEERING	30
2.1.1	Development Teams	31
2.1.2	Concurrent Engineering and Simultaneous Engineering	32
2.1.3	Variant Policies	35
2.1.4	CAD Systems	37
2.1.5	Product Data Management	39
2.2	SALES	42
2.2.1	Approaching the Customer	42
2.2.2	Quotation System	44
2.2.3	Order Entry and Verification	49
2.2.4	High-Level Sales Strategies	51

2.3	PROCUREMENT	55
2.3.1	Sourcing Strategies	56
2.3.2	Centralized and/or Decentralized Procurement	59
2.3.3	Intra- and Inter-Company Organizational Changes	60
2.3.4	IS for Procurement	65
2.4	PRODUCTION	76
2.4.1	Organizational Structures in Manufacturing	76
2.4.2	MRP Systems and Beyond	79
2.4.3	Non-traditional Concepts	91
2.5	DISTRIBUTION	95
2.5.1	Distribution Types and Tasks	96
2.5.2	Intermediaries in the Distribution Process	99
2.5.3	Information Systems in Distribution	101
2.6	SERVICE MANAGEMENT	106
2.6.1	Call Center	107
2.6.2	Help Desk	108
2.6.3	Archiving Systems	108
2.7	RECYCLING AND DISPOSAL	109
2.7.1	Recycling-Oriented Product Development	110
2.7.2	IS for Recycling and Disposal	111
3	SAP'S SUPPLY CHAIN MANAGEMENT SYSTEM	116
3.1	ADVANCED PLANNER AND OPTIMIZER	116
3.1.1	Supply Chain Cockpit	117
3.1.2	Demand Planning	120
3.1.3	Advanced Planning and Scheduling	129
3.1.4	Transportation Planning and Vehicle Scheduling	142
3.1.5	Available-to-Promise	147
3.2	BUSINESS-TO-BUSINESS PROCUREMENT, ENTERPRISEBUYER	150
3.2.1	Web-supported Autonomous Procurement	150
3.2.2	Connecting Catalogs	151
3.3	LOGISTICS EXECUTION SYSTEM	153
3.3.1	Warehouse Management System	153
3.3.2	Transport Management System	155

3.4	SYSTEM ARCHITECTURES	157
3.4.1	Architecture Variants for Hierarchical Planning	157
3.4.2	Supply Chain Management in Homogeneous SAP Environments	163
3.4.3	Supply Chain Management in Heterogeneous SAP Environments	165
4	RECENT DEVELOPMENTS IN ORDER AND SUPPLY CHAIN MANAGEMENT BASED ON SAP SYSTEMS.....	168
4.1	MYSAP.COM SOLUTIONS - EFFECTS OF THE INTERNET ON THE SAP ENVIRONMENT.....	168
4.2	INTERVIEW WITH PROFESSOR DR. CLAUS HEINRICH	171
5	CASE STUDIES ON SUPPLY CHAIN MANAGEMENT.....	174
5.1	DESCRIPTION	174
5.1.1	Colgate-Palmolive Case Study	174
5.1.2	fischerwerke Case Study	179
5.1.3	Salzgitter Case Study.....	185
5.1.4	Wacker Siltronic Case Study.....	190
5.2	SUMMARY.....	195
6	INTERNET RESOURCES FOR SUPPLY CHAIN MANAGEMENT	197
6.1	PORTALS.....	198
6.2	COMMUNITIES, SOCIETIES, AND PROFESSIONAL ASSOCIATIONS	198
6.3	RESEARCH COMPANIES.....	198
6.4	CONSULTANCIES.....	198
6.5	VENDORS OF SCM SOFTWARE	199
6.6	UNIVERSITIES	200
6.7	JOURNALS.....	200
	ABBREVIATIONS	215
	REFERENCES.....	219
	INDEX.....	237