

TABLE OF CONTENTS

Chapter No.	Title	Page No.
	Declaration	i
	Acknowledgements	ii
	Preface	iii
	List of Schematic and Graphical presentation	v
	List of statistical presentation	vi
	List of relevant Acts and Statutes	vii
	List of Abbreviations and Terminology – Ports	viii
	List of Abbreviations and Terminology – Liquid Cargo	xiv
	Table of contents	xv
I	Scope and objectives	
	01 Prologue	1
	02 Scope	2
	03 Objectives	2
II	Indian and Global Maritime and Chemical Industry Scenario	
	01 Maritime and Chemical Industry Scenario	
	1.1 India – A Maritime nation – A snap shot	4
	1.2 Introduction	5
	1.3 Profile of Indian Major ports	9
	1.4 Indian and Global Chemical Industry – in brief (other than POL Products)	
	1.4.1 Global Chemical Industry	10
	1.4.2 Indian Chemical Industry	10
	1.4.3 Situation Analysis	12
	1.4.4 Industry Clusters	13
	1.4.5 Industrial Situation and Economies of Scale	14
	1.5 Indian POL Industry Scenario	14
	1.6 Port Development in India	
	1.6.1 Traffic Projections at Indian Ports	18
	1.6.2 Policy initiatives for identified areas for private sector privatization	19
	1.6.3 An assessment	19
	1.6.4 Benefits of privatization	20
	1.6.5 Private sector participation in Ports - Indian Experience	20
	1.6.6 Milestones in the Indian Port sector	23
	1.7 Indicators and archives on economic growth and port development in India	26
	1.8 Logistic costs in India – A drag on competitiveness	30
	1.9 Indian Ports Sector Institutional Framework	31
	1.10 Indian ports performance – an overview	32
	02 Maritime Infrastructure. Constitutional, Management, Logistics and Economic Aspects	
	2.1 Prologue	43
	2.2 Components of seaports Infrastructure	43

Chapter No.	Title	Page No.
	2.3 Port Infrastructure efficiency measures	44
	2.4 Illustrative structure and components of Port income and expenditure	46
	2.5 An overview of Ports – Constitutional and Management aspects	
	2.5.1 Economics of Port planning	47
	2 5 2 Port Authorities	48
	2.5.3 Need for Port Regulation	49
	2 5 4 Types of Port Authorities	52
	2 5 5 Port Management and Operation	54
	2.5.6 Ports Infrastructure Management – in global context	
	2.5 6 1 Introduction	55
	2 5.6.2 Definition of the Seaport	56
	2 5.6.3 Function and role of an International Port	57
	2.5 6 4 Allocation of responsibility for Port related activities	60
	2 5 6 5 Objectives of Port Privatization	61
	2 5.6 6 Program objectives to increase private sector participation in the Port sector	63
	2 5 6.7 Approaches used to increase private sector participation	64
	2.5.6 8 Findings of workshop on private sector participation in infrastructure (held in Manila on 9 –10 December, 1998)	65
	03 Global Trends	
	3 1 Changes in international trade and shipping	67
	3 2 Relationship between world trade growth and world economic growth over the post war period	69
	3.3 Competition and regulation of liner shipping	70
	3.4 Implication for ports	71
	3 5 Changes in international trade and response of shipping and ports	73
	3.6 Increasing role and facts of the time	73
	References	
III	Marketing Concerns – Port Infrastructure and Services	
	01 Conceptual Rationale for marketing – Port and Port Services	
	1 1 Prologue	76
	1 2 Changing Roles of Ports	79
	1.3 Review of factors determining ship owners' / shippers' choice of Port	80
	1.4 Future trends in international trade	84

Chapter No.	Title	Page No.
	1 5 Recent Developments	90
02	General Aspects – Port pattern and cargo characters.	
	2.1 Basic issues and interrelated context	91
	2.2 Commodity structures and composition	92
	2.3 Factors affecting composition and aggregation of the clusters	93
	2.4 Port activities & cargo handling operations in brief	95
	2.5 Planning traffic flows and cargo movements	101
	2.5 1 Levels of decision making in transport planning	102
	2 5 2 Cargo flow – mathematical relationship.	105
	2.5.3 Applied formulation of distribution model – Ports – Origin and Destination	108
	2.5.4 The logit model (demand choice technique) for cost and quality service trade off	112
03	Pricing regulations for Port Services	113
04	Strategies to invigorate Port industry	
	4 1 Important areas for right strategy	
	4 1.1 Process optimization	116
	4.1.2 Effective networking with Academia	117
	4.1.3 Marketing	117
	4 1.4 Supply chain management	119
	4 1.5 The Rule of Three	120
05	Best Practices	
	5 1 What it means	122
	5.2 The global perspective	123
06	Port competition in a transition phase	
	6.1 Reasons to intensify and reshape of competition	124
	6 1 1 Division of tasks within logistics chain	124
	6.1 2 Structural changes in liner shipping and their impact on ports	125
	6.1.3 Individual Port entities shift to integrated terminal network	128
	6.1 4 Distribution of costs and benefits in the restructured environment	129
	References	
IV	Marketing Strategies – Rationale to Port Infrastructure business situations.	
	01 General	134
	02 Pattern thinking can lead to Dramatic improvements	135
	2.1 Strategic risks	136
	2 2 Profit patterns	138
	2 3 Strategic patterns relates to customer issues	141
	03 An overview of marketing strategy and competition	142
	04 Inter-modal transportation – relative influence on Port Services marketing	146
	4 1 Important Aspects	146

Chapter No.	Title	Page No.
	4.2 Management of Intermodal operations & logistics	148
	4 3 Stimulant factors – Globalization of operations and transportation	149
05	Mind application to marketing practice (MP)	150
06	Customer service is the keyword	151
07	Economics of Transshipment for hub port selection	153
08	Looking beyond the horizon	154
09	Marketing Optimization – A perspective analyzed	155
	9 1 First Principles	156
	9.2 The marketing map	160
	9.2.1 Customer Analysis	161
	9.2.2 Campaign management	162
	9 2.3 Interactive marketing	163
	9 2 4 Marketing Services outsourcing	165
	9.2 5 Data provision	165
	9.2 6 Consulting and integration	167
	9 3 Real time	168
	9.4 Value proposition	168
	9 5 Growing emphasis on Marketing optimization - Factors	169
	9 6 Why invest in Marketing Optimization?	174
	9.7 Marketing optimization in perspective	176
	9.8 Benefits	177
10	Maximizing Customer Value	
	10.1 General	179
	10 2 Analytical CRM and Enterprise Marketing Automation	181
	10 3 Benefits	182
	10.4 Achieving one-to-one marketing	185
	10.5 All customers are not created equal.	186
	10.6 Key drivers	187
	10 7 Tool evaluation – components	190
11	Marketing influence and selling	195
12	Roadmap - factors in marketing of infrastructure and service facilities	197
13	Marketing basics – Port infrastructure	198
	13.1 Place	199
	13.2 Product	199
	13.3 Price	200
	13.4 Promotion	201
	13.5 Marketing Approach	202
	13.6 Seamless integration	203
	13.7 Outlining marketing concept – aiming project objectives	204
14	Brand value and image	206
15	Indian conditions / context	207
16	Customer satisfaction	208
	16.1 Ways to create customer-friendly environment	208

Chapter No.	Title	Page No.
	16 2 Customer service	209
	16 3 Customer concerns	209
	17 New markets	211
	18 Future trends	212
	19 Overview of the competitive landscape-Five Force Model	213
	20 A case study – A Minor chemical port in Gujarat	216
	References	
V	Research methodology and analysis	
	01 Research Design and Tools	
	1.1 Data Sources	237
	1.2 Data Types	237
	1.3 Communication Approach and Data Analysis	238
	02 Sampling and sample size determination	
	2.1 Population determination	238
	2.2 The sampling frame	240
	2.3 Sample size determination	240
	03 Design of questionnaire	
	3.1 Data collection objectives	240
	3.2 Questionnaire design	241
	04 Administration of questionnaires	241
	4.1 Data compilation	242
	4.1.1 Validation of data	242
	4.1.2 Data editing	242
	4.1.3 Data computerization	242
	05 Data analysis	242
	5.1 Respondents constructs	242
	5.2 Statistical analysis	244
	06 Result summary	318
VI	Synthesis, Suggestions and Conclusions	
	01 Port Scenario – Indian and Global	322
	02 What the leaders in the sector say	333
	03 Port services – the driving forces to customer value creation	337
	04 What will be the future of market competition and the customer value in the years to come ?	338
	05 Summary and suggestions	343
	06 Conclusions	346
	References	
	Appendices	
	01 Tables – Schematics & Graphical	I
	02 Tables – Statistical	VIII
	03 Work Sheets	XIX
	04 Questionnaire	XXVIII
	05 Bibliography	XXXIV