Contents

Part I Prologue

1 Introduction 3
1.1 Preamble 3
1.2 Design Energy Efficiency Contracting in Charter Parties 4
1.3 Outline of the Book 5
1.3.1 Aim and Objectives 5
1.3.2 Research Design and Methodology 6
1.3.3 Skeleton of the Book 8

Part II Qualitative Part

2 Literature Review 13
2.1 Preamble 13
2.2 Design Energy Efficiency Improvements 13
2.2.1 Design Energy Efficiency Specification 15
2.3 Types of Charter Party Agreements 17
2.4 Barriers on Implementing the Design Energy Efficiency Improvements 19

3 Methodology 23
3.1 Preamble 23
3.2 Research Design 23
3.2.1 Research Method 27

4 Analysis and Findings 31
4.1 Preamble 31
4.2 Initial Coding: Themes, Properties and Dimensions 32
4.2.1 Themes: Time and Voyage Charters 32
4.2.2 Properties: Rights and Responsibilities (Obligations) of Shippers or Charterers and Carriers or Ship-Owners 32
4.2.3 Dimensions: Breaking Down Groupings Dealing with the Vessel 34
4.3 Theory Building: Balancing the Interests for Design Energy Efficiency Improvements 36
4.4 Focused Coding: Content Analysis of Charter Party Contracts 38
4.4.1 Information Sources 38
4.4.2 Content Analysis 39
4.5 Revisiting the Theory from the Initial Coding 44

Part III Quantitative Part

5 Chartering Negotiations for Energy Efficiency 49
5.1 Preamble 49
5.2 Theoretical Applications of Games Within Chartering 50
5.3 Game Theory Model for Sharing Scheme Determination 51
5.3.1 Principal—Agent Part 53
5.3.2 Bargaining Part 57
5.4 Energy Efficiency Investment Appraisal 59
5.5 Conceptualizing the Generated Knowledge 63

6 Application—Ocean Grain Transportation 65
6.1 Preamble 65
6.2 Trading Grains by Sea 66
6.3 Dealing with the Inherent Uncertainties 72
6.3.1 Parameter Uncertainties 72
6.3.2 Uncertainty Propagation 73
6.3.3 Parameter Significance of Choice 73
6.4 Energy Efficiency Sharing Scheme for Handymax Vessel 74
6.4.1 Time Charter 74
6.4.2 Voyage Charter 77
6.4.3 Time Charter Trip 83
6.5 Energy Efficiency Sharing Scheme for Panamax Vessel 86
6.5.1 Time Charter 86
6.5.2 Voyage Charter 89
6.5.3 Time Charter Trip 94
6.6 Commenting Remarks 98

Part IV Epilogue

7 Conclusions, Limitations and Recommendations 103
7.1 Preamble 103
7.2 Conclusions 104
7.3 Limitations and Suggestions for Further Research 106
7.4 Recommendations 108

Appendix A: Generic Bulk Carrier Designs 111

Appendix B: Parametric Distribution Fitting to Observed Data 113

Appendix C: Monte Carlo Simulation 115

Appendix D: Parameter Change Interval 117

Appendix E: Assigned Parametric Distributions 119

Appendix F: Simulated Variables 121

Appendix G: Milestones of the Book 151

Glossary 153

References 161

Index 173



http://www.springer.com/978-3-319-50264-9

Energy Efficiency Clauses in Charter Party Agreements
Legal and Economic Perspectives and their Application to Ocean Grain Transport

Psarros, G.A.

2017, XXXVII, 175 p. 111 illus., 17 illus. in color.,
Hardcover
ISBN: 978-3-319-50264-9