



Cyprus  
University of  
Technology

Faculty of Management  
and Economics

**Doctoral Dissertation**

***“Chartering and Financial performance in Shipping”***

**Mr. Andreas Kouspos**

**Limassol, 2<sup>nd</sup> of May 2022**



CYPRUS UNIVERSITY OF TECHNOLOGY  
FACULTY OF MANAGEMENT AND ECONOMICS  
DEPARTMENT OF COMMERCE, FINANCE AND SHIPPING

Doctoral Dissertation

***“Chartering and Financial performance in Shipping”***

Mr. Andreas Kouspos

Limassol, 2<sup>nd</sup> of May 2022.

## Approval Form

Doctoral Dissertation

### *“Chartering and Financial performance in Shipping”*

Presented by

Mr. Andreas Kouspos

Supervisor: Prof. Photis Panayides, Professor of Shipping and Maritime Economics

Signature \_\_\_\_\_

Member of the committee: Prof. Christos Savva, Associate Professor of Econometrics

Signature \_\_\_\_\_

Member of the committee: Prof. Herbert Kotzab, Professor of General Business and Logistics Management

Signature \_\_\_\_\_

Cyprus University of Technology

Limassol, May 2022.

## **Copyrights**

Copyright © 2022 Andreas Kouspos

All rights reserved.

The approval of the dissertation by the Department of Commerce, Finance and Shipping does not imply necessarily the approval by the Department of the views of the writer.

## **Acknowledgements**

A wonderful academic research voyage reached the end. I have started my PhD aiming to become an accomplished researcher and embark on an academic career. Now that the hard and difficult times have passed, I am left with a sense of fulfillment having reached the end of the tunnel for my PhD scientific investigation.

In January 2016, I joined the Department of Commerce, Finance, and Shipping of the Faculty of Economics and Management of Cyprus University of Technology. Actively involved in the research, I decided to undertake studies in the area of shipping finance. In a broad sense, this thesis includes studies in factors affecting the financial performance of shipping firms in the shipping industry, more precisely studies based on chartering policy, technical innovation, risk/uncertainty and financial performance in the shipping industry.

Firstly, I must thank my supervisors Prof. Photis Panayides and Dr. Dimitris Tsouknidis who believed and guided me throughout my PhD life in a way that helped me to improve my research skills and techniques. Both were always very eager to support and assist me when I was facing difficulties with my research, especially with the data collection and methodology.

Secondly, I feel very indebted to my parents, Anastasios and Aikaterini and my grandmother Maria who were always next to me supporting and encouraging me psychologically. Particularly, I dedicate this thesis to my mother who was impatiently waiting for my PhD completion and graduation despite the fact that she never realized how challenging it is. Undoubtedly, the thesis is also dedicated to my father who is always next to me to advise me for any professional and personal difficulties I may find.

Thirdly, special thanks to my friends and colleagues from my department, Dr. Polina Ellina and Dr. Christophoros Andreou, among others, who were very important for my PhD life motivation. Thanks are due to all the professors from my department particularly to Prof. Panagiotis Theodossiou and Dr. Christos Savva. Special thanks to Prof. Panagiotis Theodossiou who was the first that believed in my skills for starting my PhD, despite the fact that our academic paths and interests have changed after the first two years at the University.

Lasltly, special thanks to my department's secretaries, Mrs. Demetra Christodoulidou and Mrs. Nantia Kyratzi for their help.

*“If you don't get what you want, you suffer; if you get what you don't want, you suffer; even when you get exactly what you want, you still suffer because you can't hold on to it forever. Your mind is your predicament. It wants to be free of change. Free of pain, free of the obligations of life and death. But change is law and no amount of pretending will alter that reality.”*

*— Socrates*



## ABSTRACT

This dissertation includes essays in the topic of chartering, technical innovation in shipping, risk and return in shipping and shipping financial performance.

Chapter 1 investigates the relationship between chartering policy and financial performance of U.S. listed shipping firms using publicly available data from SEC's 20-F forms for U.S. listed shipping firms to construct a unique dataset of vessel chartering decisions. Also, firm-level data is used during the econometric modelling of panel data which are employed as a methodology for investigating this research gap. Results show that employing a long-term chartering strategy i.e., time charter with duration more than a year, shipping firms can achieve higher financial performance for the sample's period which is characterized as 'bearish'. The higher the deadweight tonnage chartered under time charter with duration more than 1 year, the higher the financial performance of shipping firms. Also, chartering capabilities are important for the shipping firm for making the best decision for chartering its ships as efficiently as possible at the right time. After the shipping crisis of May 2008, it seems that shipowners prefer to follow the path of safety by chartering their most of ships under long-term chartering contracts. Results are of interest to shipowners and ship lending authorities, mostly for improving financial performance and ensuring that loan settlement are being paid respectively.

Chapter 2 reviews the relationship between ship's technical innovation of U.S. & Oslo listed shipping firms with financial performance. Annual data for technical innovation for 21 shipping firms from 2013 to 2019 is collected from SEC 20F forms from Securities and exchange commission (Edgar) for U.S. listed shipping firms and firms' webpages for Oslo listed shipping firms. Data for technical innovation includes eco-type ship, ship's propulsion type and ice class type ships. Panel data regression modelling is applied showing that technically innovated ships have a positive robust relationship with shipping firms' financial performance. In line with the academic literature, innovation contributes to higher financial value for a firm. Among the three types of technical innovation, eco-type contributes to higher financial performance of shipping firms. This can be seen as an attempt of shipping firms to embrace corporate social responsibility (CSR) techniques which is

positively seen by shipping investors in the market. Going 'green' can positively affect firm's financial performance because shipping investors seems to embrace these green practices.

Chapter 3 examines the relationship between chartering policy and financial performance of U.S. listed shipping firms trading in the dry bulk and tanker shipping segments of the industry. We collect data for dry and tanker firms listed in U.S. stock exchanges, NYSE and NASDAQ from SEC 20F forms from the Securities and exchange commission (Edgar). These sub-segments in the shipping market have different business cycles which are formed by the demand and supply for transporting various commodity types worldwide. Panel data regression modelling is applied resulting that chartering policy in both segments differs and as a result there is a different impact on the financial performance for each shipping segment. We also compute volatilities/risks of freight rates for spot and time charter markets for assessing uncertainty in each market. Results show that employing a higher percentage of ships under time chartering strategy with duration more than a year in the dry segment has a higher impact on financial performance compared to tanker shipping segment. In contrast, employing a higher percentage of the fleet in the spot market in the tanker shipping segment compared to dry segment has a higher impact on shipping firms' financial performance. Results are useful for the risk averse investors who can diversify risks by investing in dry bulk shipping firms trading most of their fleet under time chartering and in tanker shipping firms employing most of their fleet under voyage charter.