

Ulrike Niemann

The natural gas shipping industry in cross sea of the global circumstances

An approach of how participants of the natural gas shipping industry can conduct a scenario analysis within the complex and uncertain future for strategic decision-making

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Master's of Science Thesis in Economics and Business Administration – International Business and Management

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Odense, Denmark, 2015

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The search for discovery consists not in seeking
new landscapes but in having new eyes.

Marcel Proust¹

“

¹ WILKINSON, A. & KUPERS, R. 2014. *The Essence of Scenarios: Learning from the Shell Experience*, Amsterdam, Amsterdam University Press.

Sworn statement

„I hereby solemnly declare that I have personally and independently prepared this paper. All quotations in the text have been marked as such, and the paper or considerable parts of it have not previously been subject to any examination or assessment.”

Ulrike Niemann

Abstract

Shipping of natural gas across the oceans is of significant importance – linking the energy production business with the consuming nations around the globe. Natural gas supply is predicted to increment 1.9% p.a. until 2035, therewith facilitating its transportation as a commodity on board of currently 415 liquefied natural gas vessels and further 168 more to come by 2020. Despite its comparably small size of not even one percent of the worldwide merchant fleet within the industry of shipping, the carriage of natural gas on board of vessels has been overall on an upwind within the last twenty years, foremost due to the greater discovery of natural gas as a source of energy and an increased demand for energy resources in general.

Particularly the natural gas shipping industry underlies peculiar states of affairs: It is a highly technologized, investment intense segment which is affected by currents of political, economic, and environmental origin. Hence, natural gas shipowners as well as other participants upstream and downstream of this sector find themselves in difficulty of strategic decision-making. The purpose for this study has therefore been to investigate in how a natural gas shipping company and other market participants can take a farsighted strategic decision in the complex and uncertain business environment of today and, thereby, planning for the future. By using the scenario approach of modelling a complex world in single happenings, it will be thought deeply and creatively about the future whereof the most salient factors affecting this industry are illuminated. Upon these scenarios, various economic theories and models including an equation of natural gas ships demand are applied whose concepts could be exercised by market participants in order to adapt to ever-changing circumstances with vigilance and to reduce the risk of being unprepared for the future.

The study found that the global natural gas industry is impacted by the dynamics deriving from conditions enforced by, for instance, the ongoing financial and economic crisis, legislative forces, substitutionary effects of energy products, and political discord in natural gas providing as well as receiving countries. The outer-firm global contexts leave a footprint on the strategic decision-making of a firm. In addition, it was proofed that scenario conduction is a viable tool for strategic planning of a firm active in the natural gas shipping field in order to address the business environment of uncertainty and assist in strategic management processes of business leaders. The research was conducted as a qualitative study drawing from a multitude of secondary literature.

The implications shall serve not only natural gas shipowners but also other related market participants in terms of strategic decision formation, visual thinking, and future anticipation of their business field.

Key words

economic models; economic theories; future studies; global natural gas industry; global circumstances; global energy demand; global business network; global energy supply; industry analysis; liquefied natural gas; natural gas; natural gas shipping; scenario approach; scenario planning methodology; scenario development technique; shipping industry; strategic management; uncertainty.

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