

## REFeree's REVIEW

<b>Program:</b>	Master in Management - General Track
<b>Student:</b>	Valeriya Dvornikova
<b>Title of thesis:</b>	Economic feasibility of Liquid Natural Gas transportation via the Northern Sea Route: case of Yamal LNG Project

<b>Justification of the topic choice. Accuracy in defining the aim and objectives of the thesis.</b> Justification of the topic choice; accuracy in defining the aim and tasks of the thesis; originality of the topic and the extent to which it was covered; alignment of the thesis' topic, aim and objectives.	5	4	3	2
<b>Structure and logic of the text flow.</b> Logic of research; full scope of the thesis; alignment of thesis' structural parts, i.e. theoretical and empirical parts.	5	4	3	2
<b>Quality of analytical approach and quality of offered solution to the research objectives.</b> Adequacy of objectives coverage; ability to formulate and convey the research problem; ability to offer options for its solution; application of the latest trends in relevant research are for the set objectives.	5	4	3	2
<b>Quality of data gathering and description.</b> Quality of selecting research tools and methods; data validity adequacy; adequacy of used data for chosen research tools and methods; completeness and relevance of the list of references.	5	4	3	2
<b>Scientific aspect of the thesis.</b> Independent scientific thinking in solving the set problem/objectives; the extent to which the student contributed to selecting and justifying the research model (conceptual and/or quantitative), developing methodology/approach to set objectives.	5	4	3	2
<b>Practical/applied nature of research.</b> Extent to which the theoretical background is related to the international or Russian managerial practice; development of applied recommendations; justification and interpretation of the empirical/applied results.	5	4	3	2
<b>Quality of thesis layout.</b> Layout fulfils the requirements of the Regulations for master thesis preparation and defense, correct layout of tables, figures, references.	5	4	3	2

Each item above is evaluated on the following scale, as applicable: 5 = the thesis meets all the requirements, 4 = the thesis meets almost all the requirements, 3 = a lot of the requirements are not met in the thesis, 2 = the thesis does not meet the requirements.

### Additional comments:

*Please, elaborate on the above mentioned criteria (we kindly ask you to provide your comments structured as strengths and weaknesses, maximum 5 for each, unless more points are crucial to justify the grade).*

- **Justification of the topic choice. Accuracy in defining the aim and objectives of the thesis** – *The study is proved to be topical as the research lies within the upcoming trends for the development of the Northern Sea Route that are highlighted in “The Northern Sea Route overview” (pp. 10-26). The main up to date prospects for the NSR are stated (p. 40) and underline the relevance of the study. The aims and objectives correspond to the topic announced and the business case under consideration.*
- **Structure and logic of the text flow** – *The structure of the text allows following the logic of the study as a whole. Relevant theoretical models (pp. 11-20, 36-39) are supported by the relevant case study (pp. 51-64) which allows to demonstrate reliability of the study.*
- **Quality of analytical approach and quality of offered solution to the research objectives** – *The research questions presented in the introduction (p. 9) are connected to the research gap stated after literature review (pp. 39-41) and answers to them are underlined in the*

conclusion of the study (p. 70). However, the fourth research question does not highlight the type of companies which are interested in the usage of the NSR capabilities (“What measures should be taken by companies” - p. 9). The study covers relevant theoretical frameworks including the latest researches. The theoretical models considered for the adaptation of the approach are well-structured (p. 38), but they are not presented in the details.

- **Quality of data gathering and description** – The present research is focused on the case of Yamal LNG Project. Therefore, the data used is limited to the scale of single case study. Naturally, these several interviews presented (pp. 45-48), perhaps, could not be assessed as quite sufficient to provide a full set of data necessary for clarifying the main problems of Yamal LNG Project highlighted in the “Introduction”. The availability of more statistical data on the LNG transportation costs would have improved the study and the model used. Therefore, the study has limitations to the gathered data having partly a nature of insider information that could not be received without a special permission from relevant top managers which is mentioned in the “Validity and reliability” section (pp. 48-49).
- **Scientific aspect of the thesis** – The model used in the study presents combination and adaptation of existing approaches to evaluating marine transportation costs (p. 55). Nevertheless, to our mind, not all relevant factors are included into the model considered. Therefore, the present model is to be further developed and/or redesigned taking into account some innovative features of LNG carriers on the way of development (pp. 64-68). Also such state-of-the-art issues as underwater carriers or usage of the LNG cargo as carrier’s fuel are not considered deeply yet they are connected with the studied case.
- **Practical/applied nature of research** – The results of the study can be used by companies interested in shipping of cargo via the NSR in order to estimate the better transportation route. The results are adaptable to other similar cases, some of which are mentioned in the “Discussion and further implementation of the study” (p. 64). The master thesis is based on the real business case which makes the results practically reliable.
- **Quality of thesis layout** – Some of tables presented could be moved to Appendix to make reading more easy and concentrated. For instance, these are tables 9, 10 and 11 (pp. 58,59, 60).

Master thesis of Valeriya Dvornikova meets as a whole the requirements of the Master in Management - General Track program, and according to the reviewer’s opinion deserves a/an “good (B)” grade, thus the author can be given the desired degree.

Date 01.06.2017

Referee:

Doctor of technical sciences, professor

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