Bodø Graduate School of Business

Master of Science in Energy Management

EN 310 E

Risks and Barriers for Norwegian Companies on the Russian Oil-and-Gas Market

by

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Abstract

During the last years Russia has changed its status from the dependent and conformable oil-and-gas supplier towards the major world energy player. This has happened due to its impressive reserve base, exploration potential and its preferable geographic position. Because of the positive trends in Russian economy Norwegian businessmen seem to be changing their attitude toward Russia. The intensity of cooperation in the energy sphere between these countries has increased recently. The purpose of the present research is to describe and analyze *the risks and barriers that Norwegian companies face on the Russian oil-and-gas market.* In so doing, it tends to contribute to a better and deeper understanding of the current Russian - Norwegian relations in oil-and-gas sector.

This research is based on six in-depth interviews with Russian and Norwegian experts who represent different types of energy related businesses: consulting firms, newspaper, engineering firms and educational institutions. A combination of these perspectives provides a better understanding of the research problem and a deeper insight into possibilities of Russian-Norwegian cooperation.

The background information on both Russia and Norway is important to establish the context and the culture of two countries, and Hofstede`s framework is expected to help us to get a clearer picture. Further on, this research aims to determine and describe in detail six main groups of risks and barriers (socio - cultural, political, legislative, technical, economic and environmental) for Norwegian companies and organizations based on the primary and secondary data.

The research shows that it is pivotal when doing business abroad to understand and adapt to national and cultural values and establish personal relationship. The findings of the research will be summarized in a table where each column contains type of risk/barrier that was mentioned by our respondents and described in the empirical part. Moreover, it tries to make some suggestions concerning possibilities of reducing or diversifying these risks and barriers and how can Norwegian companies cope with them on the Russian oil-and-gas market. Finally, the research works out practical implications and topics for the further research.

Key words: petroleum sector, risks, barriers, nationalization, Russia, Norway, oil-and-gas

Sammendrag

I løpet av de siste årene har Russland forandret sin status fra å være en mindre olje og gass eksportør til å bli verdensledende land. Dette har skjedd på grunn av imponerende oljeresurser, god geografisk beliggenhet og mange uutviklede potensielle olje og gas felter. På grunn av den positive økonomiske utviklingen i Russland har norske foretningsfolk forandret sin holdning til landet. Samarbeid i energifeltet mellom disse to landene har økt i det siste. Hensikt med denne undersøkelsen, er å beskrive og analysere risikoen og barrierene som norske bedrifter møter i det russiske olje og gass markedet. Dette kan bidra til en bedre og dypere forståelse av dagens forbindelser mellom russisk og norsk olje og gass industri.

Denne undersøkelsen er basert på seks store intervju med russiske og norske eksperter som representerer forskjellige typer energirelaterte virksomheter: konsulentfirmaer, aviser, ingeniørbedrifter og utdanningsinstitusjoner. En kombinasjon av disse perspektivene gir en bedre forståelse av problemene i undersøkelsen og mulighetene for et russisk – norsk samarbeid.

Bakgrunnsinformasjon om både Russland og Norge er viktig for å definere kulturrammene til disse to landene. Hofstede's teori kan brukes i denne sammenheng. Undersøkelsen tar sikte i å bestemme og beskrive i detalj seks hovedtyper risiko og barrierer for norske bedrifter og organisasjoner som jobber i Russland: sosiokulturelle, politiske, lovgivende, tekniske, økonomiske og miljøbestemte.

Undersøkelsen viser for at bedriften skal lykkes utenlands, er det viktig å få forståelse og tilpasse til de nasjonale og kulturelle verdiene i dette landet, og at man må skaffe seg et personlig forhold til samarbeidspartnerne.

Resultatet av undersøkelsen er sammenfattet i en tabell hvor hver kolonne inneholder hver type risiko/barrierer som ble nevnt av våre representanter og beskrevet i den empiriske delen. Videre er disse diskutert og analysert i analytiske delen av masteroppgaven og til slutt noen forslag til å redusere eller spre disse risikoene og barrierene er gitt.

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We are alone formally responsible for the content of this Master Thesis.

Bodø, May 23rd, 2007

Irina V. Volkova ***Marina Grinblat***

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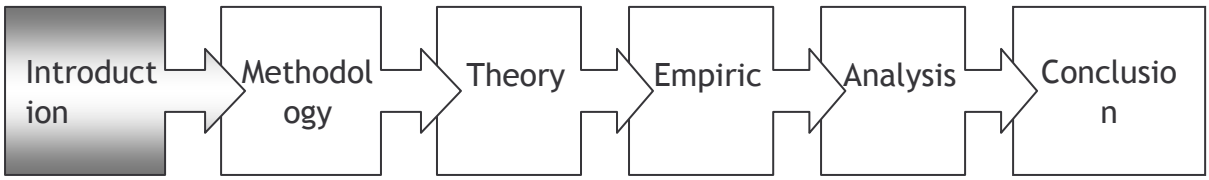
Survey of Acronyms

EU -	European Union
IEA -	International Energy Agency
MBD -	Million Barrels per Day
MPE -	Ministry of Petroleum and Energy
NCS -	Norwegian Continental Shelf
NPG -	Nomenclature Political groups
OSCE -	Organization for security and Co-operation in Europe
SSB -	Statistisk Sentralbyrå (statistics of Norway)
TEK -	Toplivno-Energeticheskiy Komplex (Russian Energy Complex)
WTO -	World Trade Organization

1. Introduction



This chapter is aimed to give general information about our research and define the purpose of our study. Firstly, we will describe the background and present limitations that are vital to carry out through the research. Then, we will formulate the problem statement and research questions. At the end of the chapter we will review the structure of the research and give a short description of content of all chapters.

This thesis sets out to describe and analyze the perception of risks by Norwegian and Russian experts in the Russian petroleum industry. The research is meant to describe and analyze those types of risks and barriers that Norwegian businesses face on the Russian oil-and-gas market. So doing, we tend to contribute a better understanding of the current Russian - Norwegian relations in oil-and-gas sector.

1.1. Relevance and Background of the Research

Russia and Norway are neighboring countries in the north and share Arctic shelf of the Barents Sea. These two countries are leading oil-gas exporters. Today Norway is taking every measure to ensure that it will continue to contribute as a major, stable and predictable supplier of energy. At the same time Russia is changing its status from the dependent and conformable oil-and-gas supplier to the major world energy player due to impressive reserve base, exploration potential and its preferable geographic position. There are not many places on the globe left with such a high number of already discovered, but undeveloped fields.

Russian Euro-Arctic shelf is therefore in focus of potential international consumers. Huge oil and gas fields in the Barents Sea and Pechora Sea prove high potential of the area. Among discovered fields is one of the largest natural gas fields in the world Shtokmanovskoye, Ledovoye and Prirazlomnoye fields. The oil and gas resources of the continental shelf of Russian Arctic Seas can become the main reserve of oil and gas in the 21st century.

Exploration of the Barents Sea and participation in Russian projects is important for Norway whose oil reserves have been forecast to decline after 2004. At the same time, there are Norwegian companies with many years expertise on offshore works in severe climate conditions, ready to participate in development of the fields and share competence.

Norwegian businessmen seem to be radically changing their attitude toward Russia because of the positive trends in Russian economy. Importance of cooperation in the energy sphere has increased recently. The Energy cooperation between Norway and Russia was initiated by a joint declaration signed by President Putin when he visited Oslo in 2002. President Putin also declared that Norway and Russia are strategic partners in development of hydrocarbons in the north when he met Norwegian Prime Minister in 2005 (Enoksen, 2007).

This cooperation is considered by Norwegians as "potentially the most important area of cooperation between Norway and Russia". Minister of Petroleum and Energy of Norway Odd Roger Enoksen said: "We will continue to develop our co-operation with the Russians" (Enoksen, 2007).

Russia has changed its energy strategy and position during the last few years with Putin's presidential terms. During 90's, so called Yeltzin's period of governance, the energy sector was almost 90% privatized and the government was gradually loosing control over it.

Present Vladimir Putin faced the challenge to "fix up" the Yeltsin's mistakes and he did that by taking control back and nationalizing major Russian oil-and-gas companies. As we see today the government's position on the international and national levels in the energy sector is very strong. Oil-and-gas export is now the main source of income for Russia.

In the meantime the international oil and gas companies meet completely different conditions on the Russian oil-and-gas market comparing to the conditions of 2000 – 2004's years. The risks and barriers they meet today have changed as well. These changes are not studied and examined as well yet as for they came across so rapidly.

The idea of Master Thesis theme came out from our educational experience. We have been studying the Master Degree program in Energy Management since August 2005, the joint

degree Master of Science in Energy Management between Bodø University College, Norway and the MGIMO University, Moscow, Russia.

During the program we got introduced with the Norwegian perspective of energy sector and international relations in petroleum industry. And our group also studied one semester at MGIMO University in Moscow, where we became acquainted with Russian perspective on energy sector and international diplomacy.

Remarkably, the Master program was initiated at the time when the GAZPROM's Shtokman project with its huge gas resources over the continuous period included the short list of foreign companies that could get 49% of its share. Two Norwegian companies, Hydro and Statoil, were in this list competing with each other and thee other companies: Total (France), Chevron (USA), ConocoPhillips (USA). Both Norwegian companies were very optimistic about their chances in the Project as they possessed a unique experience in offshore field development under the extreme conditions in the Barents Sea. During years 2004-2006, both Hydro and Statoil have heavily invested in the economical and social development of Arkhangelsk and Murmansk regions, established a wide network of contacts with Russian supplying companies and educational establishments.

But things changed dramatically when on October the 9th 2006, the Deputy Chairman of the Board of Directors of GAZPROM, Alexey Miller said that "GAZPROM will keep 100 per cent of the Shtokman field resources on its own and that pipeline gas deliveries from the Shtokman field to the European market will have priority over LNG shipments" (GAZPROM, 2007). That meant no foreign companies would get any stocks in e Shtokman project.

Two months after the GAZPROM decision the Russian President Vladimir Putin and Energy Minister Viktor Khristenko added more to the confusion over Shtokman plans by saying that the gas monopoly might still attract foreign partners to the project (Upstream online, 2007).

The next astonishing event happened in December 2006 when the boards of Statoil and Hydro decided to merge, and to become a new company that will be the largest offshore oil-and-gas operator in the world. The Norwegian state is expected to own 62 percent of the shares.

All these huge events happened during a short period of time – less than one year during 2006. They crashed all prognoses and expectations to many Norwegian and Russian supplying companies, educational institutions and local authorities in both countries. Most of the researches and literature on the Shtokman project became "out of date" due to the latest events.

So, the Energy Management program with its exchange part has given us a wider perspective on energy issues both in Russia and Norway. That is why we decided to choose a topic that could combine cross-cultural aspects and compare different points of view by analysing risks in Russian energy sector. At the same time we see the need for making a new research about risks and barriers for foreign companies willing to enter or operate on the Russian oil-and-gas market.

That is why our work is one of the first steps in gathering and analyzing information about current events in Russia and is relevant to our educational background and accumulated country experience. Our master thesis can be of interest to the Norwegian and Russian organizations which are concerned about cooperation.

1.2. Problem Statement

We are going to describe the risks/barriers that Norwegian companies meet in Russia in their attempt to participate in offshore field development. At the same time it is important to get the description and analysis of those risks/barriers from the Russian side to understand the initiatives of the GAZPROM and its international policy/strategy. Answers to these questions can help to describe possible variants in project development and find out the possible strategies for Norwegian companies.

We formulated our problem statement as:

What are the current risks and barriers that Norwegian businesses face on the Russian oil-and-gas market?

Moving further, in order to facilitate the research process, the stated problem needs to be restated in a form of exact research questions. Thus, the problem was restructured into the three following research questions:

1. How risks/barriers are defined? How they can be classified using a theory framework? How a theory of cultural dimensions can be applied?

2. Which risks and barriers are the most essential based on experts' opinion?

3. Whether and how can these risks/barriers be reduced? If not, how Norwegian companies can cope with them?

The problem statement is replicated in Figure 1.1.

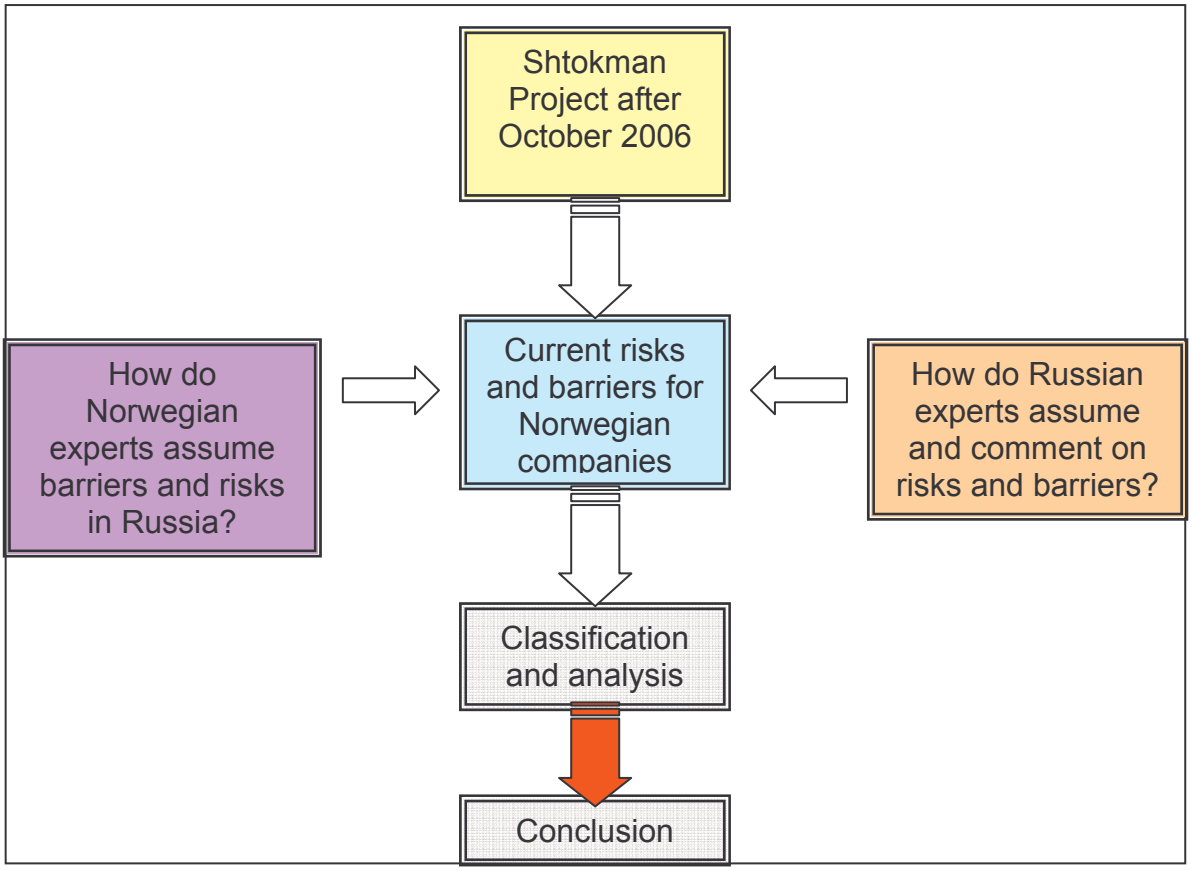


Figure 1.1. The problem statement

1.3. Limitations of the Research

The formulation of our Master Thesis research question covers a number of issues to be discussed, so to prevent possible misunderstanding and to narrow the area under our interest the limitations of the research should be mentioned. We decided on several aspects of the research question formulation to be worth mentioning in the limitation part.

It seems for us quite reasonable that the research in this field should be held on the country-level, revealing trends, difficulties and challenges. Though such research is beyond the time and financial limits of the Master students, we therefore limit our research to Russia and Norway, considering these two countries as valid representatives, as both national and international oil and gas companies operate on theirs market and reliable sample is possible to obtain.

The research question underlines the sphere in the spotlight, which is an oil-and-gas industry. To get access to a wider range of information, we decided on obtaining interviews with several Russian and Norwegian experts from oil-and-gas industry. Such an approach provides us with the possibility to consider the problem under research and helps us not to spread our efforts in too many directions.

We considered three Norwegian and three Russian interviews to be a reasonable sample in accordance with the requirements of the research and our abilities. The method of collecting data mostly by interviewing respondents consists of some danger, otherwise, misinterpreting the answers of respondents according to our own opinion and way of thinking.

Nevertheless, we hope that the paper will contribute to better understanding of the issue, and the results of the research will be useful for Norwegian companies to improve their strategy for developing common projects.

1.4. Structure of the Report

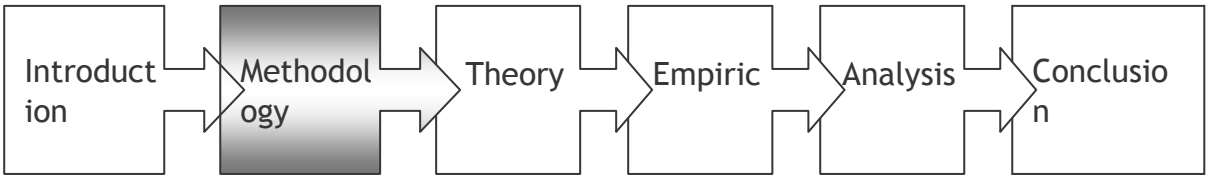
The report consists of the six main chapters, namely:

I. Introduction
II. Methodology
III. Theory
IV. Empiric
V. Analysis
VI. Conclusion

The mentioned above sections are briefly described below.

- The *INTRODUCTION chapter* gives the general background of the research, states the problem statement and research questions, as well as discusses possible limitations of the study.
- The *METHODOLOGY chapter* introduces the details of the research process, covering issues from the problem area definition to the data analysis and interpretation.
- The *THEORY chapter* summarizes relevant theoretical concepts and typologies revealed in the literature. It is aimed to provide a framework or basis for the analysis, and to avoid possible misjudgments and errors by using the experience of other researchers.
- The *EMPIRIC chapter* presents Russia and Norway as the closest neighbors in the North. We give an overview of the main economic and political developments in Russia and Norway during the past decade. Also we will describe Russian and Norwegian business culture using theoretical approach of cultural dimension. Afterwards, we are going to concentrate on determining particular risks and barriers based on primary and secondary data.
- The purpose of the *ANALYSIS chapter* is to present findings of the research. Finally, the ways of reducing or differentiating risks and barriers will be discussed.
- The *CONCLUSION chapter* presents a summary of the research's main points, evaluates it in whole, and gives propositions for practical implementations and further studies.
- Finally, in the *APPENDIX section* several additional documents used in the research under consideration are included.

2. Methodology



This chapter is devoted to highlighting methodological issues related to the research. In this chapter we present the methodological aspects that are related to the gathering of the data. Our purpose is to determine the type and method of research, as well as data collection and analysis procedures in order to tackle the research questions properly.

2.1. Definition of methodology

Methodology refers to more than a simple set of methods; rather it refers to the rational and the philosophical assumptions that underline a particular study. The methodology is a procedure, a way to organize the effort to investigate a specific problem and to bring forward the new knowledge. Different definitions of the term "methodology" can be found in the literature. In illustrating of this Annear and Lawrence (1997) note that the methodology has two different meanings: general approach to the type of research undertaken, a theoretical framework for the thesis, and techniques for data collection. In a more or less similar manner Halvorsen (1993) states that methodology means a systematic way to explore the reality. Finally, Babbie (1998) defines it simply as a technique that is used to find a solution to a problem stated.

The choice of the methodology depends mostly on the purpose for which the particular study is conducted. In choosing an appropriate research methodology, one should note that there are neither good nor bad methodologies, but more or less adequate ones, under specific conditions in order to achieve a goal (Hellevik, 1990).

2.2. Research concept

In any research it is suggested that individual values, philosophical assumptions, theoretical backing, and research methods should all be related to each other and to the aims of the research (Hopper, 1985). The *concept of Research Spiral* determines such relationships.

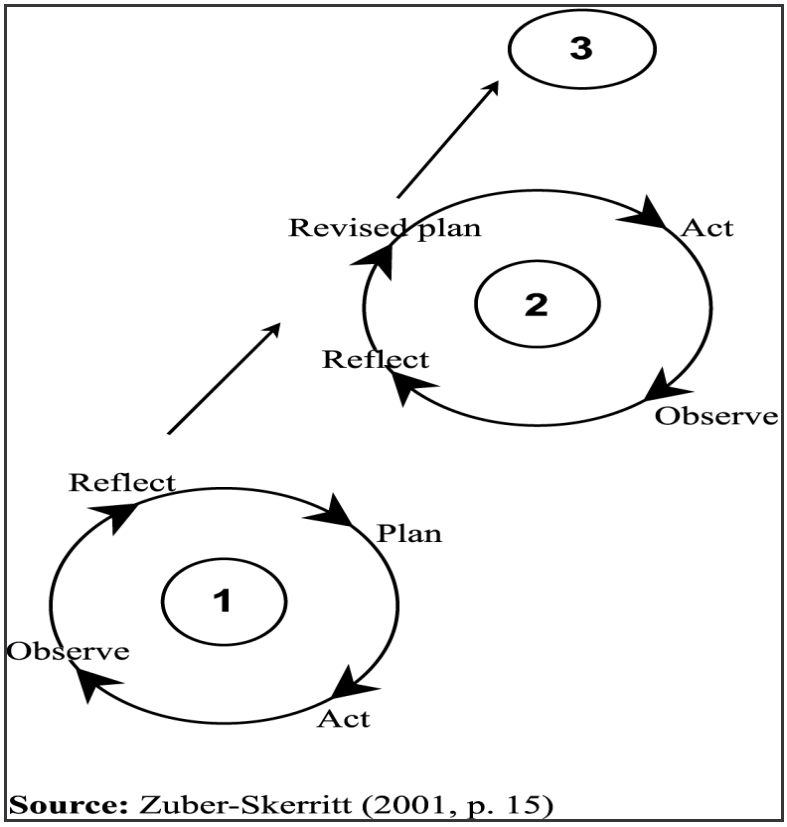


Figure 2.1. The spiral of research cycle

It is a simple, helpful model of the continuous and iterative process. It involves research and development, intellectual inquiry and practical improvement, reflection and action. This form of defining and explaining research is a diagrammatical model as a spiral of cycles (see Figure 2.1), each consisting of four moments or phases in action research: planning; acting; observing; and reflecting.

Before the research begins, we need to plan what we are going to do. The process starts with the identification of the problem area, and the scope problem is narrowed down to make it manageable. Moving further, drawing on our prior experience we define the likely participants/interviewers. We try to define outcomes we think they will value and which we are interested in providing.

According to the concept, we continue with collecting primary and secondary data about risks and barriers for Norwegian companies on the Russian oil-and-gas market. As well as we

structure the information we got from the interviews, give clear formulation of experts' opinions, and make selection of fruitful and rich data for our research.

After that information with help of analysis and comparison will be converted in to the knowledge. This knowledge in our case will be answers to our problems: understanding of risks and barriers and how they are perceived by Norwegian companies and organizations, possibilities of risks decrease or diversification.

After the analysis, reflection identifies the result of the research and whether the problem has been solved or not reveals; if not, the next step is taken with the beginning of a new research cycle. But if the results point out positive improvements, then new research begins.

2.3. Research design

A research design is the logic that links the data to be collected (and the conclusions to be drawn) to the initial questions of the study (Yin, 1989). As Nachimias and Nachimias (1976) put it, research design is a plan that "… guides the investigator in the process of collecting, analyzing, and interpreting observations. It is a logical model of proof that allows the researcher to draw inferences concerning causal relations among the variables under investigation. The research design also defines the domain of generalisability, that is, whether the obtained interpretations can be generalized to a larger population or to different situations".

2.3.1. Type of the research

There are many factors which can influence the decision of how research should be designed and conducted in practice. The choice of a topic is known to be one of the most essential factors affecting methods to be used for research process, as the quantity and quality of data needed for a specific research is directly defined by that topic, or the type of research dependent mostly on time limit and available data to be collected.

The researcher also needs to state, and argue for, the choice of approach - exploratory, descriptive or causal nature. Research approaches can be classified into three main categories:

- exploratory research design;

- descriptive research design;
- causal research design.

An exploratory research design is utilized in situations where the problem definition is not clear or where there is a doubt with regard to the relevance of the actual problem definition. It emphasizes on the discovery of the ideas and insights and is usually chosen to study the problem deeper (Churchill, 1999).

A descriptive research design is used in studies where the purpose is to describe the reality or a part as well as to identify probable reasons for the behavior one observes. The goal of a descriptive study, hence, is to describe relevant aspects of the phenomena of interest to the researcher from some perspective (Sekaran, 1992).

In a causal research design the purpose is to explain which variables enter into the cause-effect relationship. The purpose with such a research design is to identify the mutual variation between two variables and then try to indicate that there are no alternative casual factors that can account for this joint behavior. Causal research is used when it is necessary to show that one variable causes or determines the value of other variables, that is, it tries to establish cause-effect relationships among variables (Sekaran, 1992).

In our research the problem was to get better understanding of current and potential risks and barriers experienced by Norwegian companies on the Russian oil-and-gas market. The research can be characterized as explorative, in the sense that the problem is not well studied and the goal is to obtain in-depth understanding of risks and barriers. It is also descriptive in its nature, because we are going to describe events and processes as they actually are: Russian – Norwegian relations in the field of oil-and-gas, current political and economic situation in Russia, the GAZPROM's decision concerning Shtokman project, etc.

2.3.2. Qualitative vs. quantitative methods

The choice of methodology as the way the problem is being treated can vary from a research to another. One can distinguish between qualitative and quantitative research and between qualitative and quantitative inquiry.

Hellevik (1990) argues that a quantitative method is used to proceed to a systematic collection of comparable information of many researchers. The information is expressed in numbers one wants to analyze. A qualitative method is used when one wants to get knowledge of a problem. This method is interesting when it is difficult to attain, quantify and compare data gathered.

Quantitative data are systematic, standardized and easily presented in a short way. By contrast, the qualitative findings are longer, more detailed and variable in content. Analysis is difficult because responses are neither systematic nor standardized.

In many ways a major trade-off between quantitative and qualitative methods is a trade-off between breadth and depth. Qualitative methods permit the possibility to study selected issues in depth and detail; quantitative methods, on the other hand, require the use of a standardized approach so that the experiences of people are limited to certain predetermined response categories. The advantage of a quantitative method is that it is possible to measure the reactions of great many people to a limited set of questions, thus facilitating comparison and statistical aggregation of the data. One may say that using quantitative methods a researcher is more interested in explanation than in understanding (Hellevik, 1990). That predetermines the use of methods of research focusing first and foremost on understanding and stressing the importance of interpretative perspective and qualitative methods in our work.

In order to achieve the purposes of the current study it was determined to adopt the qualitative research approach, due to several reasons. The main objective of this research is to analyze the concrete risks and barriers for Norwegian companies on the Russian oil-and-gas market. The most appropriate method for researching perception of problematic issues is qualitative research, which "is concerned with the uniqueness of particular situation, contributing to the underlying pursuit of conceptual depth" (Kelliher, 2005:123). Secondly, the qualitative method was preferred in order to answer the formulated research questions that assume obtaining not quantitative information, but verbal explanation of concrete situations.

As we mentioned above, we are interested in gaining a better understanding of risk and barriers on the Russian oil-and-gas market and description of perception by Norwegians. As our sample is limited by few companies operating on the market, the quantitative methods cannot give essential information about the nature of some processes and activities. At the

same time we consider petroleum sector as one with very a high knowledge level, and people working within it have very good competence and can see problems from different perspectives. That predetermines the use of qualitative methods in my research.

2.4. Data collection methods

According to Worsley (2004), both primary and secondary data collection methods can be chosen according to level of personal involvement of the researcher, respondent group size on research project and level of subjectivity/interpretative flexibility (Riley et al., 2000).

In our research we face two general types of data that may be chosen for further analysis and interpretation. The first one is primary data, which is generally collected specifically in pursuit of particular research objectives: it is 'new' and original data (Riley et al. 2000). The second type of data is secondary data. Secondary data is 'the rest' – books, statistical reports from government and other agencies, documents and so on (Ibid.). In the Master Thesis with the purpose of increasing the amount of data collected and improving validity of the research we will use both secondary and primary types of data.

2.4.1. Primary data

Using primary data allow us to obtain exactly the data for the research and which is meant for answering the questions set when conducting the research, at least, at a certain level of the research spiral mentioned. As pointed out by Riley *et al.* (2000) the range of primary data collection methods includes social surveys, structured interviews, unstructured interviews, focus groups, observations, participant observations and others, the items listed according to the level of personal involvement of the researcher starting from the lower, and according to the size of respondent group starting from the larger. We used the list as a means for choosing an appropriate method in our case. Assuming that, on the one hand, participation observation is hardly appropriate in our situation at least considering the time limits that we face. On the other hand, social survey is not quite appropriate for us either because we are not aiming at operationalisation of the categories related to the question under consideration, but more likely at understanding, with an opportunity to change the questions asked with new information gained. Thus, we choose interviews as a main method of collecting primary data.

2.4.1.1. Interviews

As Easterby-Smith *et al.* (2002) notes, though interviewing is often claimed to be 'the best' method of gathering information, its complexity can sometimes be underestimated, and this should be always taken into account. Interviews may be highly formalized and structured, using standardized questions for each respondent, or they may be informal and unstructured conversations (Saunders *et al.* 2003). Using this classification, at the initial stage we used less structured interviews in order to let the interviewees speak and construct the world they are living in. Following Jones (1985:45), we adhered to what is called 'qualitative interview' which is focused on understanding "how individuals construct the reality of their situation formed from the complex personal framework of beliefs and values, which they have developed over their lives in order to help explain and predict events in their world". Further on, though, we moved to more structured interviews based on carefully prepared sets of questions piloted and refined when we are able to concentrate ourselves on the area, which is of special interest for us. The option we chosen here was not the extreme, i.e. purely unstructured interview, but rather semi-structured interview. By Saunders *et al.* (2000), semi-structured and in-depth interviews are used in qualitative research in order to conduct discussions not only to reveal and understand the "what" and "how" but also to place more emphasis on exploring the "why". This is exactly the reason why we decided to choose this type of primary data collection as a main one.

We have found that managers are more likely to agree to be interviewed, rather than complete a questionnaire, especially where the interview topic is seen to be interesting and relevant to their current work. An interview provides them with an opportunity to reflect on events without needing to write anything down. Other researchers report similar conclusions, where participants prefer to be interviewed rather than fill inn questionnaire (Healey, 1991). This situation also provides the opportunity for interviewees to receive feedback and personal assurance about the way in which information will be used.

We interviewed people who have awareness and understanding of the problem, and who has the competence to our questions. As our study investigates the Russian – Norwegian relations on oil-and-gas market we tried to find interviewees who are involved in the relationships and have knowledge of these relationships.

While choosing interviewees it is important to include interviewees with different viewpoints because different viewpoints confer increased accuracy. Therefore, we tried to choose interviewees both from Norway and Russia, both from business, politics and educational institutions.

All respondents have a broad understanding of oil-and-gas industry, and experience in international relations. We managed to find interviewees who represent both Russia and Norway, and they presented opinions and views from both sides of the boarder, which can be considered as an advantage:

Russian respondents:

Yuriy Scherbanin, Professor of the *Diplomatic Academy by Ministry of International Affairs, MGIMO University*, Moscow;

Konstantin Simonov, General director *National Energy Security Fund*, President of *Center for Current Politics in Russia,* Moscow;

Pavel Prohorov, Expert in Russian-Norwegian relations, "*Expert" magazine, north – west department.*

Norwegian respondents:

Erling Sæbø, Project Manager, *Det Norske Veritas*, *region Eurasia*

Jan Terje Henriksen, Center leader, *North Center for Business, Bodø University College,* Norway

Råger Håkon Mikkelsen, Consul Commercial Affairs, *Innovasjon Norge* – Murmansk department.

Unfortunately, we did not get any responses from two Norwegian oil and gas experts (Statoil and ECON) due to lack of their time.

The choice of these interviewees can be explained by a range of aspects, which are considered as important for achieving the purpose of the research. Firstly, these experts have quite solid experience. Secondly, it was relatively easy to make the contact with representatives for these companies. In case of choosing Norwegian respondents we proceeded from their experience in oil-and-gas sector, their working experience in Russia and their knowledge about Russia.

Talking about Russian experts it was more important to find analysts in current political situation in Russia, Russian energy sector, in Russian international relations and Russian cooperation with Norway. That is why we were mostly interested in conducting interview with experts, but not that much with representatives of Russian companies.

Totally six interviews were conducted. The first interview was conducted in November 2006 during our semester in Moscow. All other interviews were conducted in March and April 2007 in Norway: two interviews were personal and three was made by telephone. Each interview lasted approximately 45-60 minutes and was taped with a voice recorder.

Formulations of all the questions varied from one interview to another. It was due to the fact that we interviewed business and non business representatives, Russians and Norwegians, so we had to follow the logic of the interview.

Our purpose was to reveal what people actually think. Every interviewee has its own opinion and knowledge due to working area, so every interviewee is unique.

2.4.2. Secondary data

Secondary data includes both raw and published summaries which can provide a useful source from which to answer, or begin to answer, research questions (Saunders *et al*, 2000). Among main sources of secondary data Aaker and Day (1990) name various government publications, periodicals, journals, articles, publicly available reports from such private groups as foundations, publishers, trade associations, unions, public statistics and consultants' reports. In the research we used such kinds of data as Internet electronic libraries, as well as Internet sites of the companies, different books, articles and brochures.

To get an overview of the problem area, we conducted a preliminary study of theoretical and conceptual issues by reading extent material and the literature on internalization and cooperation, with especial attention to the area of perception of risks and barriers. The second area of literature we examined was materials on doing business in Russia. We examined research reports, prior literature, newspaper articles and articles on the Internet. It should be noted, that being in editing team for Euro Arctic Petroleum Newsletter, and we have been able to follow main Norwegian, Russian and international media channels' covering of the

development oil-and-gas industry in the Barents region from January 2006. It was extremely useful for general understanding of the situation, formulating the research problem and conducting research in general.

In our research we used analytical books of Norwegian and Russian experts about the current political and economic situation in Russia. Furthermore, we made personal contacts with these authors and asked some additional questions on these topics. Besides we got the response from Norwegian and Russian journalists about their articles in mass media concerning Russian-Norwegian cooperation in oil-and-gas industry.

We consider using the secondary data makes the research less time-consuming and richer from the information viewpoint. Though, since secondary data is all the 'rest' data but the one intentionally collected for the purposes of the research, we adhere to rather strict filtration of the data dealt with the object to obey relevance, timeliness and the chosen focus.

On the other hand there are certain potential limitation and disadvantages associated with secondary data. Many of these limitations are due to, and arise from the fact that secondary data, are by definition, collected for a purpose other than the one with which a researcher is currently concerned (Churchill, 1999).

2.5. Data evaluation

An evaluation process is designed to produce an unbiased estimate of risks perception. The evaluation process is a systematic approach. It consists of defining data requirements, assembling the best available data, and applying an appropriate evaluation method.

In our study the main source of information is opinions of different experts concerning the research question, we have to rely on their opinions and agree or disagree with them trying to find an applicable theory for that or just relying on our own logics and knowledge (Easterby-Smith et al., 2002).

Working with qualitative data it seems quite appropriate to use textual analysis concerning the analysis of documents or transcripts obtained from organizations as an interpretive methodological direction (Meyer, 2002).

Interpretation analysis on one hand is strong because of its flexibility, but on the other hand an interpretive approach can be too focusing on the individuals' perceptions of the 'reality', and too subjective as well (Hopper, 1985). To avoid that we should test our research from the two criteria of sound methodology (McNeill, 1990): validity and reliability.

2.5.1. Reliability

The first issue is reliability of obtained results. Reliability refers to the stability of measures (Kelliher, 2005). In the other words, the results, obtained during multiple identical measures, conducted by different researchers, should be the same in order to be considered as reliable. The reliability of the findings, obtained through the personal interviews can be influenced both by interviewer and respondent. Researcher can try to obtain desirable answers by specific formulation of the questions or using the certain intonation during the interview. On the other hand, the interview can keep in secret some important information, considering it to be too sensitive (Kelliher, 2005).

Concerning our research, the limitations in reliability of findings are assumed. During personal interviews a researcher receives a lot of information and, therefore, is becoming intently or not intently selective over the coming information. Further, there is a danger that the information can be taken wrong or misinterpreted by researches. We tried to avoid this by using voice recorder during interviews and presentation of our interpretation of answers for interviewed persons. In addition to decrease the possibility of misunderstandings during the interview we asked guiding and additional questions to confirm that given information was understood correctly. Moreover, combination of interviews with the other sources of evidence, such as documentation and archival records, was also aimed at strengthening the reliability of obtained findings. In our opinion, all these measures worked out quite satisfactory and the probability that we misinterpreted information is, therefore, pretty low.

2.5.2. Validity

Validity represents the extent to which a scale measurement is capable of measuring of what it is supposed to be measuring. The concern of validity should be seen in the light of assuring safeguards against the iniquitousness of human error (Tschudi, 1989). Validation of the qualitative research is not a simple question to discuss. We will understand it according to

Kvale (1989) who argues that "validation involves checking the credibility of knowledge claims, of ascertaining the strength of the empirical evidence and the plausibility of the interpretations".

The validity problems arise because during the work under the project researcher acts at two levels: theoretical level and empirical level (Halvorsen, 1993).

In our research the interview questions corresponded to one of the research questions of the paper. It was done to prevent the misunderstandings concerning the objectives of the study. Besides, in the interview question the same definitions and concepts as in theoretical part of the paper were used in order to ensure the match between theoretical propositions and empirical results.

In addition, in the case of Russia the problem of communicative validity during the interviews was overcome by speaking the same Russian language and having the same cultural background with interviewees.

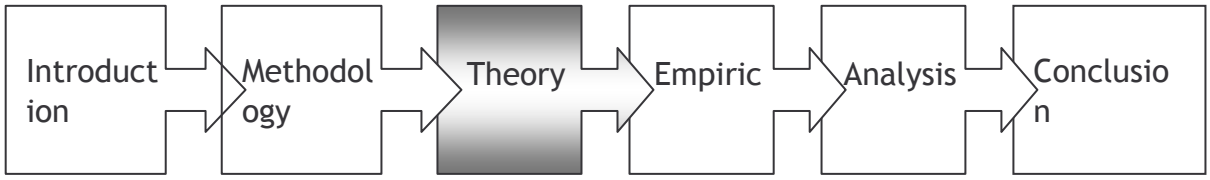
2.6. Ethical aspects

During our research there can appear some ethical issues that need to be taken in consideration. It's not a surprise that ethics are different in different countries and things that are considered unethical in one country appear to be quite normal in another country. As a researcher, we need to be as much as possible objective and we can not influence anybody's opinion. We need to be careful with confidential information from the companies and maybe need to change some names or do not show some numbers and etc.

2.7. Summary

Summing up the Methodology chapter, we would like to emphasize the main aspects touched upon. First, we reflected over the notion of methodology and research. Having chosen the research spiral as the research concept, we then gradually came to the choice of qualitative type of research, and both exploratory and descriptive types as the research design. Further, we discussed the choice of data collection methods focusing on interviews and listed respondents contacted. At last, we turned to the issues of validity and reliability, as well as the questions of ethics concerned with the writing of the research.

3. Theory



This part of the research is based on reviewing academic literature as well as previous studies on the risks and barriers for companies. As a point of departure for our research we have to define what is understood under the concepts of risk and barrier. In connection with this, we choose some basic theories on risk and barrier to present in this section. Then main classifications of risks and barriers are presented, that corresponds to the second research problem.

This chapter also gives an introduction of how culture is defined in this research. It presents an introduction to Hofstede's four cultural dimensions and finally sees how the scores on these dimensions differ between Norway and Russia.

3.1. Introduction

The aim of this master thesis is to perform a research of risks and barriers perception by Norwegian businesses operating on the Russian oil-and-gas market. In general, there exist a lot of diverse theories, models and frameworks in the field of risks and barrier providing different explanations of why some firms succeed and others not.

The following theoretical review will be structured as so as to show aspects of risks/barriers and culture, and the links between these parts. This theory chapter is aimed to provide a framework for analysis. It is composed of three main chapters. The first one discusses the concept of risk and provides risks classification. The second part describes barriers and deepens into socio-cultural sector. The third part is dedicated to Geert Hofstede's theory; in a light of this theoretical prism we try to examine the research question. Conclusions are summarizing the main theoretical fields of our research.

3.2. Risk

3.2.1. The definitions of risk

"Risk is a choice rather than a fate"
Peter Bernstein (1996:8)

Bernstein's history of man's effort to understand risk begins with the following question: "What is it that distinguishes the thousands of years of history from what we think of as modern times?" to which the following answer is provided: "The revolutionary idea that defines the boundary between modern times and the past is the mastery of risk: the notion that the future is more than a whim of the gods, and that men and women are not passive before nature" (1996:1). The question and its answer could be transposed to the context of our master research. While, a decade ago, firms considering to possibility to enter and operate on the Russian oil-and-gas market, activities were often portrayed as facing numerous and important risks against which little could be done (Gack, 1994), there are now examples that show that these risks can be managed (Aubert et al.,1999).

The meaning of the word "risk" has changed throughout history. Once a neutral term, risk has come to represent a combination of probability and something adverse or dangerous. Phenomena that were previously referred to as hazards, dangers, or uncertainties are now labelled as risks (Jacobs, 2000). The term "risk" was defined as the probability of incurring economic failure or loss (Richard, 1998). That is, the possibility that some variable events will negatively affect the returns from a project (Sullivan, 1990). Vose (2000) defined risk as a potential event with a negative impact. Murtha (1998), however, defined "risk" in a more general sense as "the potential gains or losses associated with a particular outcome of a chance event". The economic perspective defines risk as the variance of the probability distribution of possible gains and losses associated with a particular alternative (Aubert et al., 1998).

In order to take into account all aspects of the risk, it is defined as a function of the probability of a negative outcome and the importance of the loss due to the occurrence of this outcome:

Risk Exposure = P* L,

Where **P** is the probability of a negative outcome, and **L** is the loss due to the outcome. The loss due to a given undesirable outcome can be approximated either via quantitative analysis

or via qualitative assessment (Barki, 1993). In certain circumstances, the probability of occurrence of an undesirable outcome can be estimated on the basis of the past performance of the object under study (Linerooth-Bayer, 1993). However, in several areas such an assessment is almost impossible to perform. Moreover, risk is very individual concept; it is different for every one.

There are four fundamental methods of coping with risk and uncertainty according to Vose (2000). These include: diversification; reduction of exposure; avoidance; insurance. Diversification, as in the case of geological risks, means participating in the drilling of ten wells, instead of putting all one's resources in a single prospect. This reduces exposure, by taking less interest in a greater number of ventures.

3.2.2. Types of risk

Figure 3.1 depicts a business model for risks in an oil and gas development project. It divides risk into four categories: environmental, technical, economic and political (management).

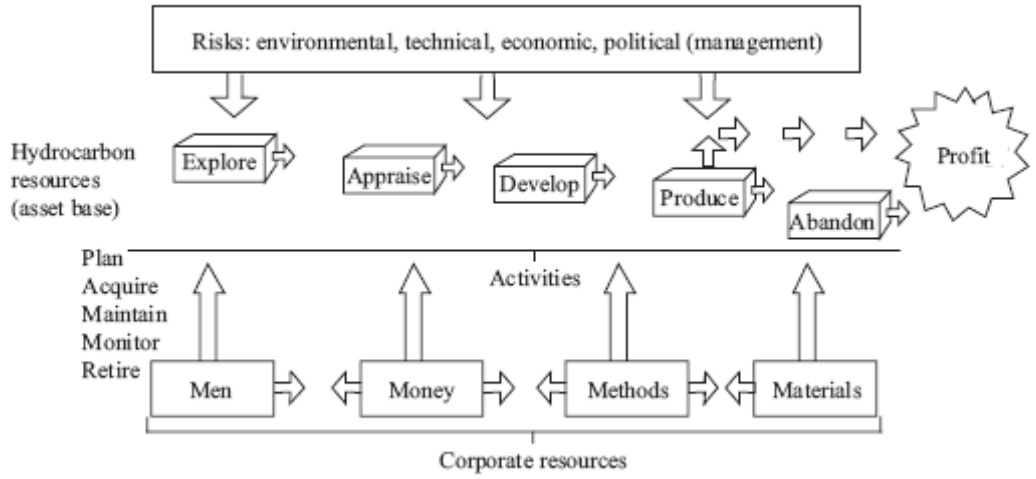


Figure 3.1.
Risks in oil and gas development project business model *(source: OPEC Review, 2004: 250)*

3.2.2.1. Technical risks

Technical risk relates to whether the hydrocarbon volumes estimated by the geologist and engineers exist in the ground and whether the reserves and recovery rates will be as projected

by the engineers. Technical uncertainty, almost always, is a function of how long the property has produced its maturity and the quality of the data from which the reserves' estimates were calculated.

Following the discovery of oil and/or gas, there are uncertainties associated with the ultimate volumes to be recovered. The reason for these uncertainties is the lack of complete knowledge of the parameters used in the calculation of the volume of the hydrocarbon in place. However, as more wells are drilled and more data acquired, the amount of uncertainty is reduced.

3.2.2.2. Political risks

Political risk involves the uncertainty arising from possible changes in the policies of regulatory bodies and the degree to which such changes may affect the project cost and revenue (Ting, 1988). Governmental risk concerns the chance that official government decisions and activities adversely affect capital or profits (Fatehi-Seden et al, 1989; Formica, 1996; Kobrin, 1979; Robock, 1971; Schmidt, 1986). Governmental risk can be extreme, as with confiscation and nationalization, or it can have temporary or more marginal effects as with exchange controls, local content regulation, etc. (Monti-Belkaoui et al, 1998; Kennedy, 1998).

When evaluating petroleum investment, a multinational company has to assess the economic impact of political risk elements on project profitability. In assessing and evaluating the impact of the political environment, major decisions in international business are often made subjectively and superficially. While regular political changes will certainly affect operations, it is generally predictable and likely to affect only the magnitude of returns. Irregular discontinuous change, on the other hand, is by its nature very difficult to predict and often affects both the magnitude of expected returns and the risks associated with them. This may be in the form of constraints on operations, such as local ownership regulations, restrictions on remittance, exchange controls and expropriation. Regulatory considerations can be sub-divided into fiscal and non-fiscal aspects. Fiscal considerations include changes in the levels of local and national taxation, exchange controls and limitations on the import and export of foreign and local currencies, and changes in the levels of custom duties on imported equipment and supplies. Non-fiscal considerations include possible interruptions by regulatory bodies over environmental matters, disagreement over the hiring and firing of local

personnel, issues on ownership restructuring or outright nationalisation. Political risk is not a homogenous phenomenon, but rather it is industry-, firm- or even project-specific. Because of its inherent subjectivity, geopolitical risk is difficult to quantify.

Governmental risks can also indirectly affect business by creating a problematic environment, as when bribery and corruption are common. Governments can intervene in the operations of foreign-owned firms by restricting ownership and control, regulating financial flows and employment of foreign management. More drastic measures would be nationalization, expropriation, or confiscation of assets. Thus, the evaluation of political risk can be an important issue for firms operating abroad (Ting, 1998).

3.2.2.3. Legislative risks

Legal structure is another factor in risk classification. These risks result when companies transact with counterparties in foreign countries, which are subject to different legal and regulatory frameworks. Several aspects of the oil and gas industry - e.g. the capital-intensive nature of the industry, market price volatility, geographic scope of assets and operations, the high-risk nature of exploration and exploitation of natural resources, technology requirements, environmental concerns, downstream brand promotion and protection issues, political sensitivities, scale and diversity of employee base, etc. - give rise to particularly high levels of legal risk for international oil and gas companies. (Lewis, 2005)

3.2.2.4. Economic risks

This refers to the risk that product prices, operating costs, equipment costs (CAPEX), inflation and market conditions will be in reasonable agreement with the assumptions used in the economic analysis of the project at the planning stage. Economic risk covers a very broad range of potential situations. For instance, the principal economic risk associated with an infrastructure project may be confined to the possibility of CAPEX overrun, and timing of completion. In the case of a depleting asset, such as mining or petroleum production, the operating costs, inflation, interest rates, product prices, demand over the optimal investment decisions and the framework of the opportunities are the major economic factors.

3.2.2.5. Environmental risks

An emerging phenomenon in the petroleum industry is that the needs to ensure the safety of life, the health of personnel, the reduction of environmental pollution and the safeguarding of investments have become veritable indices of good business practice. Environmental risk factors are not easily quantifiable, because the impact of an activity on the environment is usually not known exactly early in the life of a project. Because of the time taken for a polluted system to recover fully, in addition to the general lack of statistical data, the best estimate of the risk level is usually obtained by means of analogy with similar systems. Some companies use a risk-based hazard-identification technique at the start of projects to ensure that the actual and potential environmental impacts are identified at the conceptual stage. With a hazard-identification approach, impacts are identified in a systematic manner through a brainstorming session involving a multidisciplinary team consisting of experts from engineering, environmental, legal and other relevant departments. During such meetings, the sources of impacts are identified and methods for their prevention, control and mitigation are discussed.

3.3. Barrier

3.3.1. The definition of barrier

A barrier is an obstacle, an obstruction, or a hindrance that may either prevent an action from being carried out or an event from taking place, or prevent or lessen the impact of the consequences, for instance by slowing down the uncontrolled release of matter and energy, limiting the reach of the consequences or weakening them in other ways (see Figure 3.2)

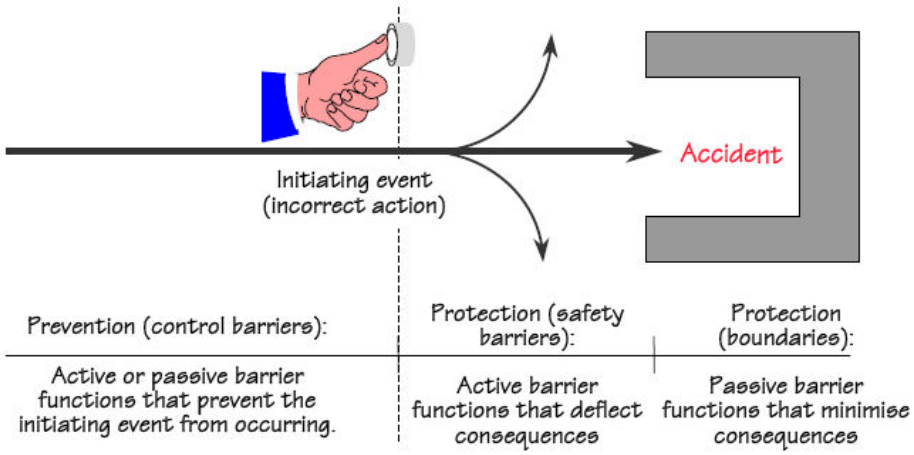


Figure 3.2. Use of barriers *(Source: Hollnagel, 1998)*

The notion of a barrier can be considered both in relation to a method or a set of guidelines for identifying barriers and in relation to a way of systematically describing or classifying barriers. The two aspects are, of course, not independent, since the method for analysis necessarily must refer to a classification scheme, regardless of whether the analysis is a retroactive or a proactive one (Hollnagel, 1998). As a starting point, a barrier function can be defined as the specific manner by which the barrier achieves its purpose, whereas a barrier system can be defined as the substratum or foundation for the barrier function, i.e., the organisational and/or physical structure without which the barrier function could not be accomplished. The use of the barrier concept should be based on a systematic description of various types of barrier systems and barrier functions, for instance as a classification system.

This will help to identify specific barrier systems and barrier functions and to understand the role of barriers. Despite the importance of the barrier concept, the literature only contains a small number of studies (Kecklund et al. 1996; Leveson, 1995; Svenson, 1997; Taylor, 1998 and Trost, 1985). The classifications proposed by these studies have been quite diverse, partly because of the lack of a common conceptual background, and partly because they have been developed for specific purposes within quite diverse fields. The most successful attempt of developing a theory of barriers has been the work of Svenson (1991), which also was the basis for the field studies of Kecklund et al (1996).

The other important issue in the process of making decision is barriers perception. Barriers assume all the factors that can influence negatively the planned cooperation on a market.

Whether these barriers are real or just perceived to exist can be found out just empirically (Albaum et al, 2002). In any case, the companies, which take decision to enter the foreign market, have to be aware of the specific hindering factors. In the end, it makes no difference, if the barriers are real or just imaginable, as far as managers of the firms make decision on the basis of perception the situation that they face (Albaum et al, 2002).

3.3.2. Mixed classification of barriers

The review of the academic literature on the topic (Young, 1989; Johansson, 1997; Bennett et al, 2002; Marshall, 2003) allowed present the classification of barriers, where all the obstacles are divided into the following categories:

1. Tariff barriers (e. g. import tariff);

2. Non-tariff barriers (e. g. import quotas, export subsidies, national standards, etc.);

3. Socio-cultural characteristics of the host-country as the source of barriers (e.g. language in the target market, stereotypes about cultural characteristics of the foreign country, etc.);

4. Government regulations (for example, regulation, limiting distribution opportunities or opportunities for advertising etc.);

5. Other barriers (restricted access to manufacturing technology and processes, distribution channels and suppliers)

3.3.2.1. Tariffs

The tariff is a tax or customs duty, imposed on goods, crossing international frontiers (Bennett et al, 2002). It can be enforced on ad valorem basis (as a certain percentage of value of imported commodities) or on the specific basis (as money amount per unit). Import duties are generally applied for the purpose of carrying out a particular economic policy, and in this context, serve the following purposes (Bannock et al, 1998):

- To reduce the overall level of imports, making them more expensive relative to their home-produced substitutes.

- To counter the practice of dumping by rising the import price of the dumped commodity to its economic level.
- To react against restrictive measures, imposed by other countries.
- To protect an infant industry until it is sufficiently well established to compete with the more developed industries of the other countries.
- To protect country's key industries, such as agriculture, without which the economy would be vulnerable in time of war.

At present, there are three types of taxes for imports to Russia, which are established in the Customs Code of the Russian Federation, introduced in 2004 (UK trade&Investment Report, 2004): import duty, which is calculated as the percentage of the customs value of the goods; excise duty, which is imposed on some duties, such as alcohol, tobacco products, gasoline; value added tax (VAT), which is calculated as a percentage of customs value plus excise duty in the case of excisable goods. The standard VAT rate is 18%, although the preferential VAT rate (10%) was introduced on the 1st of January, 2005 for the range of goods, including fish and seafood (Dontsova, 2005).

The Russian Government proceeds in improving the legislative framework to combat the customs fraud and improve customs collection, and while there were some improvements in this direction, still the inconsistency in the interpretation of customs value by different participants is leading to some abuses (Country profile: Russia, 2001).

3.3.2.2. Non-tariff barriers

Non-tariff barriers are restrictions, placed on trade, that don't involve a financial penalty (Bennett et al, 2002). They are similar to the tariff barriers, because they also represent the regulations affecting export of goods to certain market. However, these rules have more administrative nature and are often imposed by host-country government to protect the domestic market. Main types of non-tariff barriers, according to Marshall (2003), as follows:

- Import quotas – restrictions on the maximum volume of product that can be imported;
- National standards – countries may specify use of a particular national standard that is unfamiliar to exporters, placing them at a disadvantage;

- Voluntary export restraints – these are usually targeted at a specific country and prevent companies from exporting certain products to that market.

All the commodities, imported to Russia, should be certified by the Russian standards authority - Gosstandart. The mandatory certificate, required for imported goods, is Certificate of Conformity - GOST R (UK Trade&Investment Report, 2004). The Russian Government doesn't recognize some international standards, such as ISO-9000 system, instead the aforementioned Certificate of Conformity is required (UK Trade&Investment Report, 2004). However, many commodities, for instance, food products should have the additional documentation, such as the Hygienic Conclusion Certificate, issued by the Russian State Hygiene Authority, Sanepidnadzor (UK Trade&Investment Report, 2004). According to the GAIN Report of USDA Foreign Agricultural Service (2005), all imports of fish and seafood products to Russia require the following certificates: Certificate of Origin (in English), Health Certificate (in English and Russian), and Packing List, which must include the quantity of fish and seafood products. The precise list of required documentation with explanations for the imports to Russia and some other technical help for Norwegian fish exporters can be obtained via Mattilsynet – the Norwegian analogue of the Russian Sanepidnadzor.

The other issue that can discourage interest of Western exporter for doing business in Russia is burdensome labelling process. In addition to the requirements for certification, imported food goods have to be labelled into Russian language (UK Trade&Investment Report, 2004). The information that should be on the label, is dependent on the product, but common requirements for food products concern the indication of nutrition value, contain of ingredients, information about food safety in the other words, some technical information. Due to often changes in the requirements for the labelling it can be useful to employ the help of local partner (UK Trade&Investment Report, 2004). The most often complaints from Western and American exporters, dealing in Russia, concern the unclear labelling format for imported goods (GAIN Report, 2005). Despite the absence of certain format, labelling procedures for imports in Russia require Russian language label for each pack of product that is going to be sold in the Russian market. It's possible to do after arrival to Russia, however such tactic is worse as far as labelling should be done within customs warehouse, increasing storage costs for the exporter (GAIN Report, 2005).

3.3.2.3. Socio-cultural characteristics of the host country as possible source of barriers

Because of the cultural differences sometimes it's difficult to interact with members from the other countries. It's impossible to plan and develop culture, moreover, it can't be controlled by a company. Culture defines the behaviour of people in certain country and their reactions for the various situations. Stereotypes about the cultural characteristics of certain country can encourage or, on the opposite, prevent a firm's attempts to enter this country with its business activities.

In some researches that deal with influence of cultural characteristics of the host country on a foreign firm, the concept of *"psychic distance"* is considered. The concept of psychic distance was first proposed by Beckerman (1956) and later popularized by Johanson and Vahlne (1977). It has been widely applied in cross-cultural management theory and practice, and in explaining firms' internationalization process (O'Gradyand Lane, 1996) and export market selection (Dow, 2000). Geographic distance, cultural distance (Hofstede, 1980, 1983; Kogut and Singh, 1988), and market similarity (Sethi, 1971) were all used as approximations of psychic distance based on the nature of the research. Other indicators or dimensions include level of economic development, level of education, language, etc. (O'Grady and Lane, 1996). Accordingly, as stated by O'Grady and Lane (1996), the definition of psychic distance varies greatly within the literature, depending upon the way in which the concept is operationalized.

Psychic distance has been rarely applied in financial studies. We define it as the perceived degree of similarities in the characteristics of a country that can cause investors to "group" it alongside other countries exhibiting similar characteristics. This definition is quite similar to Ahluwalia (2000)'s "visible similarities." We emphasize, however, the role of perceived similarities in determining a country's vulnerability to financial contagions because such mental categorization is not solely based on the true and visible similarities in macroeconomic fundamentals. Psychic distance also captures the interactions among countries that may not be accounted for by Ahluwalia's visible similarities. Based on the literature review above, we incorporate the following dimensions to operationalize psychic distance in this study: economic development level, cultural distance, common membership, and geographical distance, etc.

Aforementioned researchers argue that the factor "psychic distance" plays the essential role in the process of making decision about entering foreign market. For example, companies, while entering "psychically close" foreign markets are showing more commitment to the foreign operations and choose more risky entry modes. Introduction of the idea of "psychic distance" allowed broaden considered amount of factors, influencing choice of entry mode, but there is also space for criticism. The research on "psychic distance" influence does not deal with consideration of influence of perceived "psychic distance" in the process of company's decision-making.

Operating on foreign markets does not only bring about additional business opportunities for firms, but also unknown challenges, such as differences in language, consumer behavior, cultural standards, legal framework or purchasing power. The degree of similarity or dissimilarity to the home market renders some foreign target markets more attractive than others. This relation between cultural proximity and foreignness can be mapped by the construct of psychic distance (Hallen and Wiedersheim-Paul, 1989; Jain, 1989). The main assumption is that firms are less likely to take up and/or continue business relations with countries that are perceived to be dissimilar (i.e. show a high psychic distance). Moreover, it is argued that a sense of cultural proximity and thus a low(er) psychic distance toward a foreign market will encourage business ventures with the country.

Vahlne and Wiedersheim-Paul (1973), cited in Nordström and Vahlne (1992), used primarily factual indicators to measure psychic distance. These include level of economic development, education, differences in "business language" and the existence of trading channels. Similarly in his study of Finnish firms' international operations, Luostarinen (1980) measured psychic distance through economic development, language and level of education. Klein et al (1990) also focused on factual indicators when attempting to capture the construct with a 7-point rating scale, ranging from "very similar" to "very different". Five aspects were rated, namely:

- language of the country;
- accepted business practices;
- economic environment;
- legal system; and
- communication infrastructure.

Another group of researchers stressed the cultural dimension of psychic distance when operationalising the construct (Benito and Gripsrud, 1992; Kogut and Singh, 1988; Ronen and Shenkar, 1985). Kogut and Singh (1988), for example, take Hofstede's (1980) measures of uncertainty avoidance and cultural distance to form a composite index of "cultural distance".

Culture is also in the basis of communication processes, and especially understanding business culture in the host country is one of key success factors for a company, planning its activity in this country. The main cultural issues, affecting communication between a firm and host market, are shown in the Figure 3.3.

- Written conventions (dates, titles, etc.)
- Weights, measures and currencies
- Religious beliefs and practices
- Mealtimes and dietary considerations
- "Personal space" and "comfort zones"
- Attitudes to work/personal life
- Attitudes to family/friends
- Customs and traditions
- Use of leisure time
- Greeting and leave-taking
- Small talk
- Public holidays
- Giving and receiving gifts
- Telephone protocols
- Hours of work
- Attitude to punctuality
- Gestures
- Body language
- Advertising practices
- Use of images
- Dress code
- Gender roles
- Use of color

Source: Marshall, C. (2003). *Mastering international trade.* United Kingdom: Palgrave Macmillan Ltd.

Figure 3.3. Cultural aspects, affecting communication process between entering firm and host market actors

Russians, for example, prefer personal contacts before making deals. Russian business culture places great emphasis on individual relationships (UK Trade&Investment report, 2004). Therefore, business trip to Russia can be of crucial importance for the foreign firm in terms of establishing business links in the Russian market. Besides, it's always necessary to reconfirm

appointments with Russian businessmen prior to arrival to Russia (UK Trade&Investment Report, 2004).

3.3.2.4. Government regulations

This dimension represents barriers that can't be controlled by a company, and it just has "to adapt to them" (Johansson, 1997:160). On the stage of making decision about entry to the foreign market a firm should take into consideration and study thoroughly the possible government regulations, imposed by the host-country authorities. These restrictions are aimed at protection of local producers and are dependent on the industry. The governmental regulations can affect the production process or/ and sales of the entrant in the host-country. The imposed regulations can severely influence the foreign company, but can be partially or even fully overcome through co-operation with host-country's local partner.

3.4. Culture

3.4.1. What is culture?

Culture consists of both tangible and intangible point at are styles of dress, language, food, or mannerisms. These things are easy for everyone to observe and see that are different from culture to culture, but there are also other and just as important things that is not that easy to pick up on if you do not know the culture.

The values that the culture is built on like what is good and what is evil, how to define peace and how the social system is built up etc. are not things you can see. You have to learn it by study the interaction between the people and by acknowledge that each culture have different assumptions in which they live after.

Culture is a shared set of meanings, culture is relative, culture is learned and it is about groups of people. Culture is not about right or wrong, it is not inherited and it is not about individual behaviour (Hoecklin, 1994). Personal behaviour is however strongly influenced by culture (Hooker, 2003) and the pyramid in Figure 3.4 shows how the three levels of human mental programming are correlated in a hierarchical order.

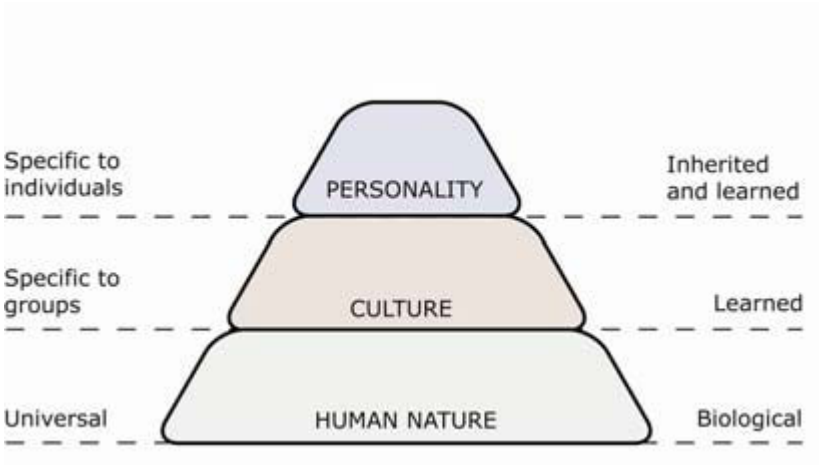


Figure 3.4. Three levels of human mental programming *(Hofstede, 1991)*

In this pyramid we can see where Geert Hofstede places culture in his model of three levels of uniqueness in human mental programming (Hofstede, 1991).

Culture is about groups and culture is learned. Culture does again consist of different layers where some are more profound than others (Hoecklin, 1994 and Hooker, 2003). The national culture, the professional culture and the corporate culture are some of these important layers.

The capacity to change the values depends on timing and the sequence of learning these values (Hoecklin, 1994). The first layer is the national layer which is the deepest and most difficult to change.

These values are learnt from the childhood and are deeply rooted in a group. The professional layer and corporate layer has to do with conventions and ethics you learn through an education, profession and in a company and they are more a guidance to how to do things in practice rather than assumptions on how things are (national layer).

3.4.2. Four Cultural Dimensions and the position of Russian and Norwegian culture today

There are often great culture differences between nations and organizations, and Hofstede (1984) studied these differences and grouped them in to four dimensions: uncertainty avoidance, individualism – collectivism, power distance, and masculinity – feminity. By dimension, Hofstede means the ability to define how a culture's patterns of behavior solve a

given problem and how this behavior is compared with that of other cultures. His point is that these dimensions are possible for measuring culture differences on all levels: national, organizational, school, family and so on. He stressed that since people are moving between these levels, they bring their culture wherever they go.

Hofstede is famous for his research on IBM offices in 40 different countries, where he wanted to measure culture differences between different IBM offices. In that research Hofstede (1984) made indexes on the five different dimensions, and made a thorough research in a great number of companies along these dimensions in every country. We will limit ourselves to the first four dimensions, because for the fifth dimension, Long-Term Orientation, data are so far available for only few European countries.

At that time, the (then) Soviet Union did not, for obvious reasons, take part in the study.

3.4.2.1. Power Distance

Power distance is defined as the degree to which members of a society expect power to be unequally shared. It represents the extent to which a community maintains inequality among its members by stratification of individuals and groups with respect to power, authority, prestige, status, wealth, and material possessions. It also reflects the establishment and maintenance of dominance and control of the less powerful by the more powerful. This perception varies a great deal from country to country, and so the concept of power distance is an important key to identifying differences between them.

Low Power Distance	*High Power Distance*
• The difference between human beings is ought be as small as possible • There is a mutual dependence between human beings • More educated people have less authorization values than people with less education • The hierarchy in organizations leads to a difference between workers because of practical consideration • Decentralization is popular • There are low differences in wages between the top and the bottom of the organization • Subordinates expect to participate in management issues • The ideal manager is a democratic person with plenty of resources • Privileges and status symbols are not very popular	• Differences between human beings are wanted and expected • Persons with little power are ought to be dependent on the persons with high power • Both less and more educated people are showing authorization values • The hierarchy in organisations reflects the existence of difference between high and low • Centralization is popular • There are high differences in wages between the top and the bottom of the organisation • Subordinates expect to be told what to do • The ideal manager is humane charitable autocrat or a godfather • Privileges and status symbols for leaders are popular and expected

Table 3.1. ***Difference between low and high power distance***

3.4.2.2. Uncertainty Avoidance

This second value measures how much anxiety about future events a society can tolerate. Hofstede defines uncertainty avoidance as the degree to which members of a given culture perceive and react to an undefined threat and unknown situations. This condition translates into the level of stress on, and the desire for predictability in, rules both written and unwritten. Hofstede (1980) has noted that in cultures with strong uncertainty avoidance, the need for rules is highly emotional, leading to behaviour based on rules which tend to be unclear, inconsistent, and unwieldy. In this situation, people can be satisfied with a formal structure and ignore reality. When there is weak avoidance of uncertainty, rules are established only when necessary. And people are used to less structure in their lives and are not as concerned about following rules and procedures.

Low uncertainty avoidance	*High uncertainty avoidance*
• Uncertainty is a normal part of life, and you meet every day as it comes • The level of stress is low, and you feel comfortable • You should not show aggression and feelings • Everything different is interesting and exiting • There should not be more rules than absolutely necessary • Time is not very important • Employees have a very good time when they relax. Work is only important when there is absolutely need for it • Precession and punctuality are something everybody has to learn • There is high tolerance for new ideas • Need for performance and reputation is motivating the employees	• Uncertainty is a constant threat you have to fight against. • The level of stress is high, and you often have angst • When time and place is right, you can show your aggression and feelings • Everything different is dangerous • There is a constant need for rules, even if no one will ever use them • Time is money • Employees wan to hurry, and an inner programming tells them to work hard • Precession and punctuality are natural • Low tolerance for new ideas • Need for security and reputation is motivating the employees

Table 3.2. Differences in low and high uncertainty avoidance's cultures

3.4.2.3. Individualism vs. Collectivism

Human societies differ in the relationship that individuals have with other members of the group. Today, there are both collective societies who value time spent within the group, and individualist societies who value time spent by individuals in their personal lives. Individualism is more prevalent where the links between individuals are tenuous and people are expected to look out mostly for themselves and their immediate family. Collectivism is characterised by interest in tightly woven groups where members are protected in return for unconditional loyalty to the group.

Geert Hofstede has demonstrated how there is a very strong correlation between the individualism factor and Gross National Product (GNP) per capita. Individualist countries (the US and other Western countries) are also those who have the highest GNP per capita, and vice versa.

How things are done in business is also related to this dimension. For example, in a country with a collective mentality, employees expect their firm to take care of them like a family does. In countries with a more individualist mentality, the company does not get involved in the personal lives of its employees.

Collectivistic	*Individualistic*
• If you do something wrong, you "lose face", and bring your group into shame • The relationship between the employer and the employee is a moral question, as a family relationship • In job engagements and advancements, you must keep in respect the group the employer belongs to • Management is management of groups • Personal relationships are more important than the main work	• To do something wrong leads to a feeling of shame and lose of self-respect • The relationship between the employer and the employee is a contract. The contract is made of mutual advantages • Job engagements and advancements to do only build on skills and formal rules • Management is management of individuals • The main work is more important than personal relationships

Table 3.3. Differences between collectivistic and individualistic cultures

Geert Hofstede has demonstrated how there is a very strong correlation between the individualism factor and Gross National Product (GNP) per capita. Individualist countries (the US and other Western countries) are also those who have the highest GNP per capita, and vice versa.

3.4.2.4. Masculinity vs. feminity

This cultural value defines the division of roles between men and women in a society and it varies from one country to another. "Masculine" societies display differences in roles between men and women; "feminine" societies have greater overlap in these roles.

Feminine	*Masculine*
• Humans relations are important • "Work for living" • Managers use their intuition, and try to reach an understanding • Strong values at work are solidarity and quality • Conflicts are getting solved through negotiations and compromises	• Money and materialistic values are important • "Live for working" • Managers are expected to be strong-minded and self-asserted • Strong values at work are general rights, performance and competition between colleagues • Conflicts are getting solved through fighting

Figure 3.4. Differences between feminine and masculine cultures

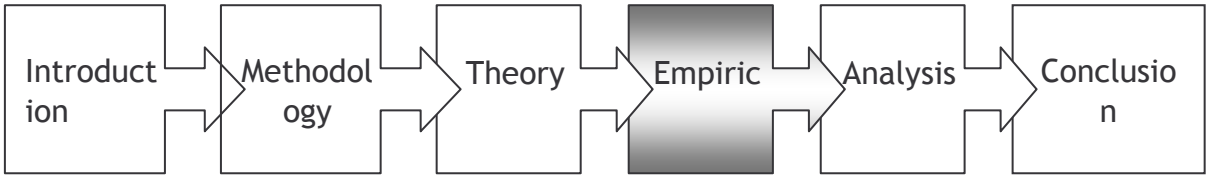
3.5. Summary

The objective of this chapter was to provide a theoretical background for our further empirical and analytical research of risk and barrier perception by Norwegian companies on oil and gas market.

Thus, we derived theoretical premises of how risk and barriers may be defined and classified in our research. There is one important limitation regarding risks and barriers we should point out in our theoretical findings it is that that risk by its nature is more quantitive notion while barrier can be described and analyzed using qualitative techniques. Neither the interviewed respondents make any differences between these two concepts nor we make it.

The purpose of this theoretical part was to highlight how cultural differences affect the behaviour and actions of individuals in different situations and in particular the affect this can have in Norwegian risk perception and Russian way of doing business. That cultural differences matter in dealings with other people are something everyone will experience one time or another whether it is concerning business, work relations or private relations.

4. Empiric



The chapter deals with presentation of the data, which was obtained through the personal and telephone interviews with Norwegian companies' representatives and key informants. Firstly, background information about Russia and Norway is presented; we give an overview of the main developments in Russia and Norway during the past decade, outlining present economic situation and describing oil-and-gas sector in both countries. Then, according to the obtained interviews and secondary data we define risks / barriers for Norwegian companies operating on the Russian oil-and-gas market, providing every type of risk and barrier with background information in order to make a clearer picture of current situation. Finally, we describe risks and barriers based on Russian and Norwegian experts' point of view.

4.1. Context

Contemporary world demand is characterized by rapid development, which requires more energy to cover the increasing needs of the countries. The International Energy Agency predicts that the world will need more energy both in the short term and in the long term perspective and estimates an increase in the world energy demand of 60 % towards 2030 (see Figure 4.1).

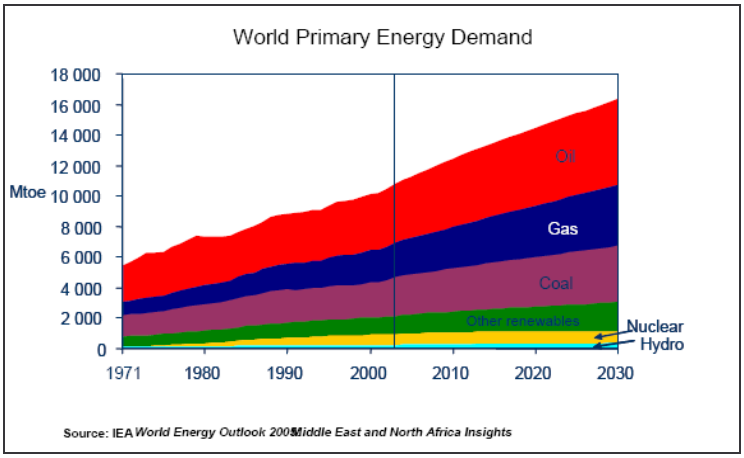


Figure 4.1. World Energy Demand

Today the world's demand in energy is covered by fossil fuels, coal as well as a smaller part of renewable energy sources and nuclear energy. In the years ahead the importance of oil-and-gas energy sources are expected to remain high, with increasing role of oil and natural gas in total world energy consumption (IEA, 2006).

Existing oil-and-gas fields are not enough for covering raising demand of the world. There is necessity to explore new fields and start new production in order to meet the demand. According to USA Geologic Survey, approximately one forth of unexplored resources is expected to be hidden in the Arctic regions of the Earth (Figure 4.2). Many offshore fields were until recently considered too far from the shore to be extracted economically, and too far from any export market to justify an extension of the pipelines. New technologies make it possible to produce and transport oil and gas from remote fields, located in severe climatic conditions.

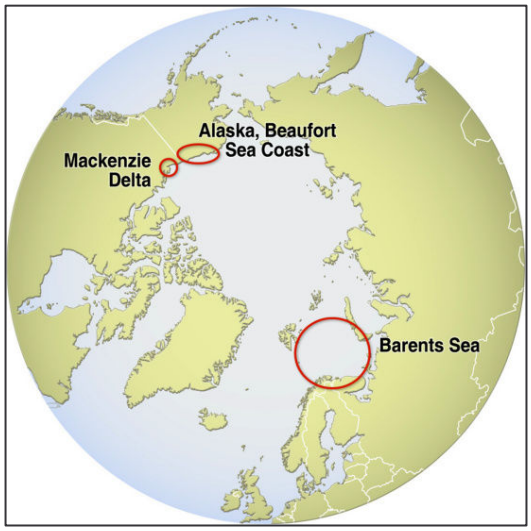


Figure 4.2. Development of fossil fuel resources in the Arctic
(Source: United Nations Environment Programme, 2007)

Russia and Norway are neighboring on the north countries, as to that both countries are major producers and exporters of oil and gas, and they yield only to Saudi Arabia, to the largest petroleum exporter in the world. Thus Russia and Norway are interested in oil price stability at the reasonable level.

4.1.1. Russian oil-and-gas industry

It is difficult to overstate the importance of the Russian oil and gas sector, both to the Russian economy and to world hydrocarbon markets. It has more proven natural gas reserves than any other country, is among the top ten in proven oil reserves, and is the largest exporter of natural gas, the second largest oil exporter, and the third largest energy consumer. Energy exports have been a major driver of Russia's economic growth over the last five years, as Russian oil production has risen strongly and world oil prices have been very high. This type of growth has made the Russian economy dependent on oil and natural gas exports and vulnerable to fluctuations in oil prices.

Russia remains one of the most important, and, it is often argued, most unpredictable player in global oil-and-gas market (Woodruff, 2006). Recent changes in the country's petroleum industry raised a new wave of concern over Russia's ability and willingness to remain a reliable energy exporter.

According to the World Energy Statistics, in the first six months of 2006, Russian crude and condensate production averaged 9.6 million b/d, reaching in June a post-Soviet maximum of 9.7 million b/d. Since 2000, Russian oil producers have increased crude output by 3.2 million b/d. The country has 5.4 million b/d of refining capacity, and the present refinery utilization rate is 80 percent. Russia exports more than 5 million b/d of oil and nearly 2 million b/d of refined products, predominantly to Europe (IEA, 2006).

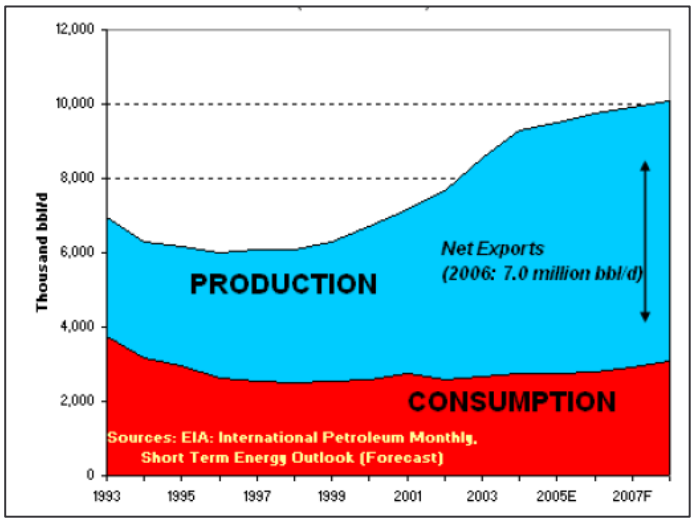


Figure 4.3. Russian total liquids production and consumption *(IEA, 2005)*

Reserves of Russian natural gas are even more abundant than oil and estimated to be available for the next 100 years at current production levels. With almost no decline after the break-up, Russia produced 600 bcm (billion cubic meters) natural gas in 2005 (7.5 times more than Norway). In contrast to Norway, about 60% of Russian produced gas goes to domestic market at low regulated gas prices, which are currently around six times less than the high market prices received for Russian gas exports to Europe. Due to energy inefficient economy inherited from the Soviet era, Russia is on the second place in gas consumption in the world, after USA.

Most of Russia's 60 billion barrels of proven oil reserves are located in Western Siberia, between the Ural Mountains and the Central Siberian Plateau. Roughly 25% of Russia's oil reserves are on Sakhalin Island where several consortia have begun producing and exporting oil (mainly to East Asia at present). There are significant additional reserves yet to be discovered in Russia to supply at least a proportion of the increased demand that is foreseen. The most prospective regions for these new oil-and-gas discoveries are expected to be East Siberia and the Arctic shelf (Figure 4.4). The future of the Russian waters looks even more promising. Oil and gas potential of the offshore provinces of Arctic Russia, is the main reserve for its development in XXI century. Prospective hydrocarbon-bearing structures are known in the Barents, Pechora and Kara Sea with discoveries of Timan Pechora, Shtokman, and Yamal. The Barents Sea is expected to become the major northern energy basin for Europe and USA (Barlindhaug, 2004).

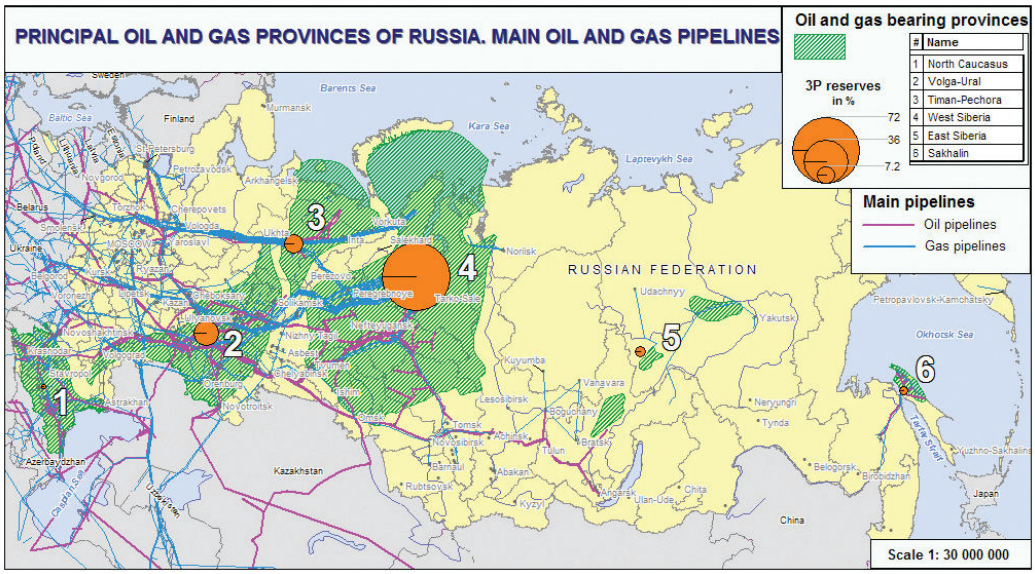


Figure 4.4. Principal oil and gas provinces of Russia *(Deloitte, 2006)*

The petroleum industry is heavily consolidated. In 1999, notable changes took place in the organizational structure of the industry, as the big companies acquired each other's shares. In 1999, so called vertically integrated oil companies, like LukOil and KomiTEK, dominated the business. Their share of oil drilling was over 85 %, and almost 90 % of oil refinement. In the gas sector, the absolute leader is GAZPROM. The share of the company of gas extraction in Russia in 1999 was almost 95 %. The two giants, GAZPROM and LUKoil, have begun internationalization as well by acquiring shares in foreign companies in Central and Eastern Europe and CIS. The oil and gas companies form the basis of Russian big industries and lead the list of the largest companies in the country. GAZPROM is the second, and LUKoil the third largest company in the country measured by realized production. 7 out of 10 of the largest companies in Russia are in the oil and gas sector. These companies are also large in the world-wide comparison of oil and gas companies, which are often national firms. (Deloitte, 2006)

4.1.2. Norwegian oil-and-gas industry

Norway is considered to be a very secure supplier of oil and gas to EU with long relations. Norway has steadily been delivering most of its oil and all its gas to Europe since the 1970s when oil was first produced from the Ekofisk field. Norway is closely linked to EU's energy market through the EEA agreement and the country has a formalised and regular energy

dialogue with EU (Nilsen, 2007). Regarding the sale of oil and gas, Norway is the second largest exporter of gas to EU after Russia and the third largest exporter of oil after Saudi-Arabia and Russia (IEA, 2006).

Oil extraction has passed the peak of growth and is now in the mature phase where exploration of the marginal fields will be in the future. Although the region will continue to be a sizeable producer, crude oil output is projected to begin a long term decline. While production of oil is expected to decline in the years to come, total output from the NCS is increasing due to the production of gas.

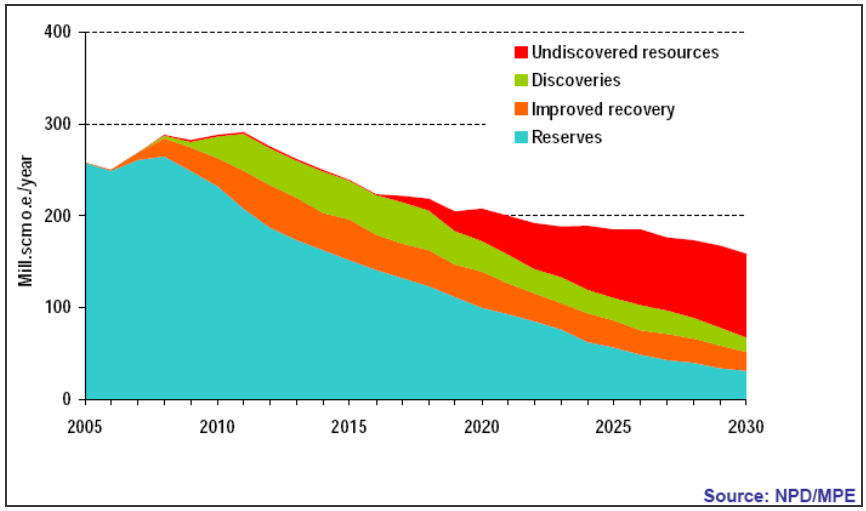


Figure 4.5. Production forecast *(MPE, 2006)*

Petroleum production is expected to increase gradually up until 2011, and to fall gradually thereafter. Gas production is expected to increase until 2013 and could reach plateau at a level of 120 billion scm (see Figure 4.5).

Norway, always well supplied with waterpower, has become self-sufficient in energy through the exploitation of vast petroleum and natural gas deposits in the North Sea. The major fields include Ekofisk, Frigg, Sleipner, Statfjord, Troll, and Oseberg. Its oil sector had gone through a period of transition that included the privatization of the state-owned oil companies Statoil and Norsk Hydro in 2001. Most of the State Direct Financial Interest (SDFI), which managed holdings in 150 offshore oil and gas fields and controlled around 40% of the country's oil production, had been reorganized to form a new entity called Petoro.

4.1.3. Russian-Norwegian cooperation in the field of oil-and gas industry

Norway and Russia have competed in energy markets since the 1970s, but their adherence to opposite economic and political poles oriented exports to a large extent to different markets. Norwegian oil and gas was almost entirely directed to Western European countries (and some oil to the U.S.), while more than half of Soviet exports were devoted to Eastern Europe and the former Soviet Republics.

After the collapse of Soviet Union, when the Russian government started opening the country to foreign markets, the process of co-operation between two neighboring countries – Norway and Russia - got the rapid development. It was tangible in many spheres, such as environmental issues, oil politics, management of joint marine areas and resources in Barents Sea, etc. The co-operation of Norway and Russia in economic sphere is especially developed between Northern part of Norway (Nord-Norge) and North-West area of Russia, which is "one of few stable and at the same time resource rich regions of the country" (Kjølberg, 1997:357). According to Kjølberg (1997), in Northern Norway Russia is considered to be important economic partner. Despite incomplete trade liberalization and existence of some barriers against entering the Russian market many Western companies show their interest in developing their businesses in Russia. Nowadays, more and more Norwegian oil-and-gas companies consider Russia to be attractive market for exporting and even investments. The attractiveness of this market for the Norwegian companies is based on the geographical closeness, market size, growing political and economical stability (Roudchine, 2002). However, there are many threats, perceived by Western businesses, as far as Russia, in general, is still in the late stage of transition, and perceived risks are considerable and diverse (Arnold et al., 2001).

With the development of offshore fields in the Barents Sea, Norway and Russia share interests in the development of infrastructure and industrial technology. This may lead the Russians to invite Norwegian companies to participate in the development of high-tech fields in the area, such as the Shtokman field. Given cooperation, Norway will need alliances and partnerships with non-Russian parties in dealing with her greater neighbor, as when a "mouse goes to bed with a bear" (Austvik, 2006).Such cooperation will be especially challenging if cooperation taking place within the disputed area if it remains unsettled (Figure 4.6).

Figure 4.6. Petroleum reserves and borders in the Barents Sea
(source: United Nations Environment Programme, 2007)

Russia and Norway are believed to have common interest in the development of the frameworks of the European Energy markets but we got absolutely different point of view from our respondent that both countries are commercial competitors in the area of gas:

> Norway is very important strategic competitor of Russia on oil-and-gas market. I do not consider any kind of partnership in this industry between Russia and Norway because both countries are oil-and-gas producers and they divide product market. Norway is not the consumer of energy resources and that is why Russian-Norwegian relations are more complicated than with any other energy importing country.

The participation of the Norwegian companies in oil-and-gas production on the shelf of Barents Sea has a great national and international importance for Norwegians. We can assume that there are four obvious reasons which objectively encourage Norwegian specialized companies to enter the Russian oil-and-gas market and to participate at the joint developing of the Russian oil-and-gas resources. Firstly, it is a *depletion of the resources of the NCS*

(Norwegian Continental Shelf). Secondly, *Norwegian authorities prevent the development of oil-and-gas production further in the North to the Barents Sea before all the information about the ecological consequences of the oil-and-gas production in the Arctic will be obtained*. At third*, the Confederation of Norwegian Business and Industry (NHO) considers that the participation of the Norwegian companies in production of oil-and-gas from the Russian shelf creates also great opportunities for the supply industry and related branches*. They will be able to participate in the cooperative upgrade of the existing fields. At fourth, *the use of technologies and competence is important to take care of vulnerable environment of the north areas.*

4.2. Russia and Norway through the prism of Hofstede's cultural dimensions

Now we would like to find out what factors influence the cooperation between Russia and Norway. We shall start with the culture and try to apply Hofstede's theory of cultural dimensions in order to explain differences and similarities between these countries.

> "There are many difficulties Norwegian companies meet when they enter unknown markets either it is in Finland, Japan or USA. But maybe this fact is more visible in Russia because the country is so diametrically different from Norway. And it is important to realize this and, of course, to act accordingly. Many companies did not succeed because they relied too much on their own capabilities."

Russia and Norway differ due to their different backgrounds. And it is not easy for a Norwegian company coming to Russia to build successful relationships with Russian partners. There are of course a lot of difficulties, but also a set of sheared values that can help to build a cooperation.

According to Hofstede's theory (that was described in the theoretical part of our research), Norway is an example on a somewhat *low-context culture*. The context includes the collection of social and cultural conditions that surround and influence an event (Laroche, 2003). In a low-context culture irrelevant information around the message, that has to be delivered, is not important. Individuals go straight to the point and things are done effectively. In this way lows-context individuals tend to focus on the message and not on the person although relationships and detailed information about one another can develop during a process.

Norway is also what we call a rule-based society; which means that individual behavior is governed by rules (Hooker, 2003).

Russia is a typical *high-context culture* with much emphasize on retrieving information about their counterparts before they can place them in their proper context. The context includes the collection of social and cultural conditions that surround and influent an event and it also have a big impact on communication and how people read a situation (Laroche, 2003). Hence Russian people will go to great steps to get to know the counterpart on a more informal level than a low context person. This is also connected with the fact that Russia is a relationship-based culture (Hooker, 2003).

Background information on both Russia and Norway seems to be important to describe the context and the culture of the two countries and Hofstede's four cultural dimensions help to get a clearer picture. Here we would like more precisely examine two countries by applying four dimensions of Hofstede.

Regarding *masculinity/femininity dimension*, Russia (although this certainly varies greatly from one region to another) is in the same group as Scandinavian countries on this dimension (Russia: 28, Sweden: 5, Norway: 8, Finland: 26) and not unlike the French (43). However, it differs significantly from the US (62), West Germany (66) and, above all, Japan (95).

Talking about *individualism/collectivism*, with a factor of 41, Russia falls into the groups of countries with a collective mentality, along with Sub-Saharan Africa, North African countries, Mexico, (the former) Yugoslavia and Brazil. However, it scores lower than Norway (69) with its individualistic mentality.

Russia has a rating 68 on *uncertainty avoidance*. By way of example, on the other end of the scale, Norway rates 50.

Russia rated 58, placing it among the countries with high *power distance*. This score is as high as (the former) Yugoslavia, India, Sub-Saharan Africa. By way of comparison, the US scored 40 and Scandinavian countries have an even lower rating, e.g. 31 for Norway. This value constitutes a coherent characteristic of Russian mentality.

The scores for Norway (see Table 4.1) suggest that it is a society with equal opportunities and rights for everyone. The wealth and power is distributed more or less equally to everyone. Individuality and personal rights are very important and the emphasising on personal goals and nurturance shows that this is a feministic society. The uncertainty avoidance is medium and indicates that this is a somewhat rule-oriented society, but it is still tolerant of variety of options and can accept changes to a high degree. Norwegian special features are equality, participation and democracy.

Country	Dimension			
	Power distance	Uncertainty avoidance	Individualism vs. collectivism	Masculinity vs. feminity
Norway	31	50	69	8
Russia	58	68	41	28
Min	11 (Austria)	8 (Singapore)	12 (Venezuela)	5 (Sweden)
Max	94 (Philippines)	112 (Greece)	91 (USA)	95 (Japan)

Table 4.1. Cultural dimensions' indices *(Hofstede, 2000)*

The scores for Russia (see Table 4.1) imply that this is a society where power and wealth are distributed unequal and that there is a strong hierarchical structure of organisations. The loyalties lie in the group and family in which you belong to and there is male domination in most areas in society except the traditionally female occupations and duties. The uncertainty avoidance is somewhat higher than in Norway and it indicates an even higher degree of rule-oriented society. Russia is quite the opposite of Norway and is a relationship-based culture.

4.3. Risks and barriers classification

The next step in our empirical part is to define and classify risks and barriers for Norwegian oil-and-gas companies on Russian market based on theoretical framework and conducted interviews. The risks and barriers classification is presented in Figure 4.7. Further, we follow this classification in order to describe and systemize risks and barriers.

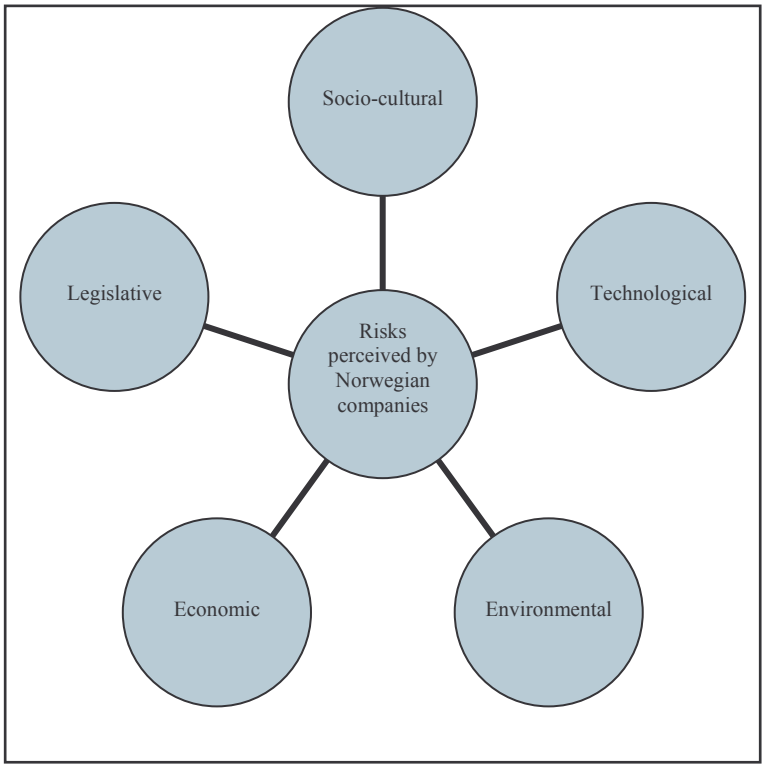


Figure 4.7. Risk and barriers classification

4.3.1. Socio – cultural risks and barriers

Keeping in mind all the above mentioned information concerning differences and similarities in Russian and Norwegian cultures, we would like to determine and deeper examine risks and barriers which can be describe as socio – cultural. These types of risks are widely quoted by our interviewers' and highlighted as the most important ones because the Russian and Norwegian cultural backgrounds are quite different:

- ⇨ *Barrier related to the lack of trustworthy information;*
- ⇨ *Risk concerning the perception of information about Russia and Norway;*
- ⇨ *Barriers emerging as a result of foreign language ignorance/ linguistic barrier;*
- ⇨ *Bureaucratical barrier;*
- ⇨ *Barrier related to differences in relationships within the company;*
- ⇨ *Risks of bribery and corruption;*
- ⇨ *Barrier of shortage in skilled oil-and-gas staff.*

Cultural peculiarities include deep and complex Russian culture, combining elements from old imperial past, soviet heritage, ethical elements or different people living in Russia. And for anyone tempting to operate with or within Russian oil-and-gas market, understanding the informal institutes is thought to be critical. Let us consider the above mentioned risks/barriers in more details.

Barrier related to the lack of trustworthy information

There is simply not enough information about Russia given in the official guidelines. In the absence of the information how business in such a specific industry like oil-and-gas is functioning, it seems to be difficult for Norwegian companies to adapt to rapidly changing Russian market. As one respondent told us,

> "There is not enough information about Russia frightens some Norwegian companies from doing business there."

In a more or less similar way another respondent pointed out,

> "Norwegian companies that do not find enough official information about the country begin to search it from the newspapers, which may angle facts or cover them subjectively."

Another thing is that statistical information in Russia is very extensive, and in a so quickly developing market as Russia it gets out of date very fast. Many Russian websites are not regularly updated with current information and the articles describe the situation that took place about 10 years ago.

It should be stated that there are several organizations which are intended to help Norwegian businessmen in order to provide them reliable information. Such institutions have representative offices in Russia and could be easily got in touch with by any Norwegian company which is willing to improve the knowledge and get some external experience. There are just to name a few Innovasjon Norge, The Norwegian Barents Secretariat, Russian Chamber of Commerce offering a number of services in the various stages for foreign companies interested in Russian market, providing financial support for projects, providing coverage and dissemination of information for foreign business partners, etc. One of the

reasons why companies usually do not resort to help of these organizations may be that they are not aware about such kind of services due to the lack of mass advertising.

Risk concerning the perception of information about Russia and Norway

This kind of risk seems to be very important to describe because the most popular source of getting any information in modern society is mass media. Moreover, there are different obstacles which should be highlighted in out research.
Problems connected with the risk of misinterpretation of information were mentioned by the majority of our interviewers. As one of them said,

> "Information in Western mass media does not reflect the actual situation in Russia. One should pay attention only to the real facts: trade volumes, cash flows and completed contracts. Even though there is much negative information about Russia in mass media, in many cases real facts do not confirm it."

Similarly, another Norwegian expert told,

> "Most Norwegian community perceives Russia being very risky business because of media… Sometimes we get very frustrated with Norwegian reporters "making storm in the glass of water. Increasing knowledge about how things are *actually* functioning will be important contribution to cooperation. Knowledge pushes away ignorance, when people do not know the situation."

In Russia the issues about Norway and Russian-Norwegian relations are usually covered on the local or regional level. We found out that in main Russian cities such Moscow and St.Petersburg there is no such interest and knowledge about Norway as in North-West Russia. They could not even comment that so "far away" issue with the Russian vessel "Elektron" ship in Moscow newspapers and TV without asking some experts from Murmansk.

In Norway it seems to be opposite to Russia: the most issues of Russian-Norwegian cooperation are described on the national level with sometimes political context. One journalist from Norwegian newspaper told us that they describe the Norwegian point of view

on Russia (which can sometimes be very different from Russian expert view), but they are not against asking some Russian experts if any.

> "Unfortunately, journalists from both countries suffer from partiality. There is a "good" explanation of this phenomenon in that sense that everybody should care about their national interests; uppermost, about interests of their own country. On the other hand, it is not to be forgotten that there are neighbors with whom the relations of friendship and relations of cooperation should be established. The first step is to understand their position, and secondly is to find common issues which are followed by development of cooperation."

Oversight and misinterpretation of oil-and-gas sector's activities taking place in both countries are indeed common ingredients of messages from the lay media, often leading to tensions between partnering businesses. Nevertheless, mass media may also positively affect the cooperation between Russia and Norway. When information is properly reported, the mass media can be instrumental in producing a more rational demand for initiating contacts and closer cooperation (Domenighetti et al., 1998).

However, the mass media should not be regarded only as conveyors of information. They may also have a role in representing societal views and identifying important needs that would otherwise remain unknown. The mass media may fruitfully act at the interface for Norwegian companies and institutions, promoting participation on the Russian oil-and-gas market, fostering wider debates, and representing opinions and values often overlooked within the community. However, if the mass media are to bridge the gap between governmental bodies and companies, and between Russian and Norwegian businesses, ways are needed to achieve continuous communication between journalists and oil-and-gas professionals.

Occasionally there is a signifact difference in a way information is presented to the newspapers' readers and TV programs' viewers. We assume that both Russians and Norwegians need to become more familiar with each other's language and rules and more conscious of the responsibility they share in assuring that information is properly and fairly represented in the delivery.

As a result of this there is another barrier that came out the last time and was expressed by Russian experts and in Norwegian newspaper Dagens Næringsliv (April, 2007),

> "Major Norwegian and European energy companies prefer not to discuss or comment on their negotiations with Russian companies in mass media."

That was again made to avoid partial interpretation of information and premature conclusions by journalists.

Another concern is the problematic issue of current differences in the ways Norwegian and Russian mass media regards activities and developments on the Russian oil-and-gas market. And one of opinions we received was,

> "There is a huge gap in delivery information between Russian and Norwegian mass media, because in both countries there are national oriented journalists."

Although their validity might be questionable, most journalists agree in regards to their validity, but disagree as to their origins and causes. The significance of this problem is very important, because of its economic and social consequences.

Barriers emerging as a result of foreign language ignorance/ linguistic barrier

Apart from the above mentioned risks and barriers, another common cultural obstacle is said to be language. The lack of fluent language skills and knowledge about host country impedes communication, as common interpretation schemes are missing. This can result in unintended consequences such a dislike and distrust among members that hinders the formation of relational capital and a common understanding of the problem.

Most Russian respondents who have already had any relations with Norway said that language was not a problem. They are used to have international negotiations with the help of interpreters. At the same time Norwegians argue that language is a main barrier in business cooperation. For example, as one respondent said,

> "Language problems are one of the important barriers in cooperation, especially since the offshore industry is used to international standards in English, which most

> Russians cannot read. And there are so many of these standards that it is almost hopeless to translate them all."

Companies should hire a professional translator but be very careful that his mediation might be an obstacle in establishing good relationship with one's partner. The underlying danger of negotiating through interpreters is however often ignored. The Russian interpreters may lack understanding of a particular industry, unconsciously altering the meaning of the words or using general terms. Further, they may possess different understanding of the context of the words as they are from another culture, environment, and reality.

> "In Russian companies all decisions are made by older-generation men who usually do not speak any other language than Russian."

We believe that the best way for companies is to use bi-lingual employee or at least an interpreter with specialization in the particular industry.

Bureaucratical barrier

The role of bureaucracy is traditionally strong in Russia because of the vertically build state power. Moreover, most of Russian oil-and-gas producing companies' structure is also vertically built. Managerial insufficiencies may develop because vertical integration creates complex problems of control and coordination among highly interdependent activities (D'Aveni, 1992).

It is difficult to find the right person who takes decisions in Russia, a large number of papers have to be completed/obtained or there are other heavy routines on the preparation stage, which are time-consuming procedures and may be the reasons of projects delay. Our Russian respondent mentioned here,

> "The main challenge for foreign companies coming into Russia is to understand how the strategic decisions are made and how does the political governance functioning. And if the Western company is used to apply to Energy Ministry in its home country, they suppose that the same Russian Ministry makes decisions here in country. But in fact no strategic decisions are made in the Russian Ministry of Industry and Energy."

And the same idea was expressed by Norwegian expert,

> "The responsibilities of regulatory bodies in Russia are fragmented, and there is no co-coordinating body like for example the Petroleum Supervising Authority in Norway."

In the situation of conflict between government policy and its implementation, international firms must rely heavily on information provided by local managers living in the host country.

Time-consuming bureaucracy is one of the reasons, why representatives of foreign companies give up on the early stages of the process to establish business with the Russian company. For business to be successful it is necessary to reconstruct the organization in the way of building a team of decision-makers, which consists of marketing, financial and like specialists.

Rohan (2004) underlines that working as a foreigner in a society as complex as that of Russia can be very burdensome, especially from an administrative or operational point of view. That is why having a knowledgeable partner with is very important. It should be somebody who understands how both official and unofficial systems work. As our interviewer noticed,

> "It is necessary to take into account refinements of Russian politics and management in order to understand Russia. And the foreigners' level of comprehension is growing: foreign companies hire consultants, open representation offices, have dinner with "right persons", and so on."

Barrier related to differences in relationships within the company

Delegation of duties is the main characteristic of business culture practicing within Norwegian companies. This fact makes easier to cooperate with different levels of employees in Norwegian society. Controversially the working responsibilities in Russian companies are not clearly defined and all decisions have to be approved by the head of the company. This is the reason why decision making process in Russia is time-consuming and longer than in Norway. Norwegian respondent told us,

> "In Norway we are less hierarchy structured and it is an advantage that you do not need every time a personal decision of higher level manager/person. In Norway there is a more system of delegating responsibilities to lower levels".

It is also worth mentioning here the differences in corporate ethics. Working ethics in Russia seems to be more fluctuating and unclear than Norwegian corporate ethics. During the last years business ethics has become the point of interest in Russia, but there is no mutual understanding of the subject today and its use to the business community in general and to the single entrepreneur.

Risks of bribery and corruption

The question of bribery should be examined in this context. Despite several sensational cases and well-publicized stereotypes, bribery exists in all countries in one form or another (ICC, 2006). Some of the international firms will not enter into the bribery at all and prefer to withdraw, some go along with local customs, other use their financial power to bull their way into a market by this means , other distance themselves from this activity through agents or by commission sales, and other distinguish between grease (paying to speed up services which should be performed by governmental employees) and bribery (paying government employees to act against the interests and laws of their countries). Often bribery does not have the desired result as when the bribe taker sells out again to higher bid or takes the bribe but does not perform the service. In Russian business practice, the problem has nearly been institutionalized and managers should take it into account (ICC, 2006).

Russia's Economy Ministry conducted research titled "Russia as an Investment Project" in the course of which 158 large foreign companies were questioned about their work in the country. Investors named corruption and imperfection of law enforcement practices as the major problems. However, the level of corruption cited by investors was astonishing. The negative side of working in Russia, the foreign companies said, is the corruption which permeates all levels of business. According to the poll result, 40 percent of the respondents said that "it is hard to run business in Russia obeying the international ethic and legal norms" (Moscow times, 2006).

Many Russian and foreign economists agree that corruption and criminality obviously create further barriers for foreign direct investors to overcome. The definition for corruption states that this is an opportunity available only to those in authority, thus unless the corruption exist at the highest levels of Russian politics and society there is almost no chances to achieve competitive advantage. Another aspect of this problem is extension of corruption into the

relations between the federal authorities and regional governments in Russia. The regional powerful governors and senior politicians are also sometimes got involved in corrupt processes. To sum up, it goes without saying that existence of criminal and corrupt practice, especially in the spheres where they have direct influence on business competition, do frighten foreign companies from doing their business in Russia.

Barrier of shortage in skilled oil-and-gas staff

Despite the fact that the Russian technical institutes and universities are producing more graduate engineers with oil and gas based qualifications than the corresponding educational establishments in Western Europe and the US, there are still concerns that the industry currently lacks the required number of experienced staff.

One of our respondents mentioned that there is a competition for well educated and experienced Russian specialists. And the salaries for such employees are skyrocketing.

According to the survey of Russian oil-and-gas market carried out in April this year by Deloitte, most their respondents saw industry employment as staying steady or potentially decreasing over the coming year, and over the next three years. This trend was also broadly present within the individual companies that participated in the survey, although the companies seemed a little more likely to move against the broad industry trend by increasing staff. With the increased exploration and development activity expected, this perhaps means a greater reliance on technology, or outsourced service providers, rather than increased staff numbers to achieve the expected increased activity levels.

To illustrate a successful example we would like to mention Russian-Norwegian educational cooperation directly connected to oil-and-gas sector and based on Bodø University College such as Master of Science in Energy Management (together with MGIMO University) and MBA program for ROSNEFT managers. According to the information provided by the HHB's employee the main obstacle was that the educational systems in Russia and in Norway are different,

> "Russia is adapting to Bologna process as well as Norway and most European countries are. But that was the foreseen problem that we have different educational

> systems and we have different requirements of approval programs. So, actually getting a joint degree was not easy to obtain but we have managed and students will get the joint degree."

Moreover in March 2007 the High North Centre for Business was established, the task of which is to help firms wishing to take part in the development of the northern areas, in the oil and gas industry, trade, fisheries, tourism using the expertise already accumulated. The workers at the centre co-operate with Innovation Norway in order to assist Norwegian firms to grasp northern area opportunities (HIBO, 2007).

4.3.2. Political risks and barriers

> Russia has been striving to find its new place in the world since the Soviet Union ceased to be in 1991. A new political order has been established and the economy has seen strong recovery and growth since the collapse of 1998 (BBC, 2006).

The Russian Federation (Russia) is recognized in international law as continuing the legal personality of the former Soviet Union (USSR) which was dissolved on 31 December 1991. Since the break up of the Soviet Union in the early 1990s Russia has made significant transformation on social and economic development. Numerous social, economical and political reforms, which were initiated under the Yeltsin's presidency, turned out to be unsuccessful and lead the country through economical, demographical and political crisis.

Among the biggest challenges and mistakes made by the "post-Soviet" Russian Government was taking up the responsibility for settling the USSR's external debts, even though the country's population made up just halve of the population of the USSR at the time of its dissolution.

In Russia, the transformation to a market economy has involved the privatization of the majority of Russian's industries. November 1992's presidential decree established 11 vertically integrated oil companies from former oil-producing associations of the Former Soviet Union (FSU). Their estimated size in reserves and production could be compared with the world's major petroleum companies. The gas sector, however, was to remain intact under the gas monopoly GAZPROM (that turned out to form the future economic policies of the country).

The partial privatization of the Russian oil industry has consisted of two stages. The first stage, which ended in June 1994, was the commercialization of state enterprises into joint stock companies and the selling of shares through vouchers, with ownership limited to workers and Russian citizens. The privatization process's in Russia opened ownership to foreign investors. In 1995 the second stage of privatization began, under the shares-for-cash proposal, the Russian government implemented a shares-for-loans scheme, whereby large blocks of government shares in certain joint stock companies (which included five of Russia's oil giants: LUKoil, ONACO, Slavneft, Sidanco, YUKOS) were auctioned to a group of Russian commercial banks for cash. The privatization process had many large violations and faults, among which are: low privatization prices, corruption within regional and local authorities, loans-for-shares auctions, inadequate state asset management and disregard for privatization guidelines (Troika Dialog Research, 2004). That time created so called Russian "oligarchs" at the same time as the majority of the population faced big economical and social problems. That period with too much freedom and no rules has weakened the country and its legislative power, which culminated in a financial collapse in 1998.

Vladimir Putin was formally elected as a President on 26th March 2000. He kept largely intact the government he had inherited from President Yeltsin although a reshuffle in March 2001 placed some of his own loyalists in key positions.

During his first term, Vladimir Putin moved to re-centralize power, cutting back the positions of regional governments and big businesses. He also pushed forward an ambitious program of domestic reforms, particularly in the economic sphere, including banking reforms, tax reform, anti-money-laundering legislation, and administrative and judicial reform (perhaps the key to positive changing trends in Russia). Favorable economic conditions, fuelled by the high oil prices, have so far ensured his continuing personal popularity and given him the confidence to press ahead. Although progress on some politically and socially contentious issues like energy sector reform and pensions has been more limited, overall this has probably been the most stable and prosperous period for Russia since the break up of the USSR (BBC, 2007). Duma elections on 7 December 2003 showed an unprecedented win by United Russia, Putin's preferred party. United Russia with its allies now has a two third majority vote in the Duma, which could facilitate changes to the constitution if it so wishes. President Putin won a second term on 14 March 2004 with a landslide majority, although the OSCE's election monitors

were critical of what they considered to be unbalanced media coverage heavily slanted in his favor. More generally many observers are concerned about the often highly restrictive and authoritarian brand of 'managed democracy' which V. Putin now oversees. Parliamentary elections are scheduled to take place in December 2007, followed by Presidential elections in March 2008 (BBC, 2007). V. Putin, according to Russian Constitution, can not participate in the next presidential elections and he has not announced his successor yet. The year 2008 is very important for Russia and for foreign companies working within it. The new president can either continue current policy or change it totally. One of our Russian experts mentioned,

> "There will not be any big changes in Russia next 2-3 years as the new president will surely come from the same environment, from so called "elite group".

From our interviews with Norwegian and Russian experts were identified as the most significant the following political risks and barriers:

- ⇨ *The barrier of excessive political involvement in energy business;*
- ⇨ *Risk of using "Energy Weapon" by Russia against neighboring countries;*
- ⇨ *Risk of political influence on choosing strategic partners in energy sector;*
- ⇨ *Unpredictability and instability of the Russian legal environment;*
- ⇨ *Barriers concerning potential disagreement over the continental shelf delimitation.*

Let us now describe these risks in more detail.

Excessive political involvement in energy business

Some of our respondents have mentioned that today's energy sector is much politicized. Interestingly enough, Russia initiated this process with official visits of president Putin to Germany and other countries for discussing the building of new pipeline routes and other ways of energy transportation. Remarkably, Western countries and Norway are not used to make such decisions on political, but rather on the corporate level. In other words they do not need the country leader to participate in signing energy contracts. That can be organized by the companies' managers. But in recent times we noticed that Norwegian ministers (the same as Russian officials) can be more often seen participating on energy conferences and on the openings of different international cooperation energy programs. The North Center for Business at the Bodø University College may serve as an example.

Our respondents think that this barrier has an importance for Norwegian-Russian business cooperation, especially when political vector of our countries can change due to domestic and international events.

> "The less politics interferes into business, the better business is developed."

Risk of using "Energy Weapon" by Russia against neighboring countries

There are many discussions about Russia's becoming an energy Superpower and using its "pipelines instead of rockets" against other countries. Russia has recently been accused by the West of using its natural resources as a policy tool to be wielded against offending states like Georgia, Ukraine, and other states it perceives as hindrances to its power. At the beginning of 2006 Russia greatly increased the price of gas for the Ukraine following that country's Orange Revolution. It has also recently doubled natural gas prices to the Republic of Georgia following an international incident in an alleged effort to strongly influence the Georgian leadership's defiance of Moscow.

Russia, in its turn, accuses the West of applying double-standards relating to market principles, pointing out that it has been supplying gas to the states in question at prices that were significantly below world market levels, and in some cases remain so even after the increases. Russia argues that it is not obligated to effectively subsidize the economies of post-Soviet states by offering them resources at below-market prices (Simonov, 2005). This statement was proved by our respondent,

> "Russia just strives to sell (including to Ukraine and Belarus) its resources at the world price. Moreover, Russia refuses from its imperialistic practice – "gas in exchange for political influence". We do not impose any political regime on neighboring countries, but try to establish transparent trade relations".

That risk could be applied mostly to the consuming countries having contracts with Russia. As Norway is exporting country itself, this risk does not have any significant impact on cooperation between Norwegian and Russian companies as long as Norwegian customers would not have much political influence on the country.

Risk of political influence in choosing strategic partners in energy sector

The recent Russian economy was being accompanied with amplification of the leading elite nomenclature-political groups (NPG) within the environment of an active President of the country - Vladimir Putin.

Companies, which are being controlled by the leading elite groups, have continued to play a role of key oil and gas market regulators, have taken away nearly all basic functions of executive and legislative authorities. Exactly they have determined the state policy towards Russian business and exactly they have established the operating procedure for foreign companies in Russian Federation. (Gas and oil connections, 2006)

The year 2006 has brought many innovations for foreign policy of Russia. Promotion of interests of oil-and-gas corporations at foreign markets have become its main tasks. The principal purposes are - purchase of assets in a Downstream segment in Europe and China, and also the building of the new pipelines. There are two problems: hydrocarbons production capacity does not allow realizing the Western and Eastern expansion strategy simultaneously.

Both European and Chinese companies have invested in Russian energy sector and are participating in building pipelines. Depending on which of the elite groups are going to lead the country, will influence the political energy diplomacy and choice of strategic partners.

The choice of foreign companies, which do want to work on the Russian oil-and-gas market, is not significant. Only two ways of their existence in Russia have remained for them - to enter an alliance with the "liberals" or "siloviki"[1] and total adoption of the rules based on which these NPG are willing to play both on Russian and foreign energy market.

It is difficult for us to find a right quoting for this kind of risk, because this issue is considered tough to discuss aloud by both Norwegian and Russian respondents, and none of our respondents were willing to discuss the political underground interest of leading groups in Russia and their influence on the relationships with other countries. Nevertheless, we can give

[1] A clan of former and present members of security or military services, often the KGB (and its post-Soviet successor the FSB), who came to power during the Yeltsin years and had significantly increased their influence after Vladimir Putin became President (Mosnews, 2007)

some opinions from our Norwegian respondents on GAZPROM's decision about Shtokman project,

> "It could be a political disaster to start a project like Shtokman where 80% of equipment needs to be produced abroad. This can be very unpopular government decision. They need time to think about what solutions can get sufficient Russian content, which can be produced by Russian manufacturers, and until they have regulations and standards for people to use".

Another Norwegian respondent shared this opinion,

> "I understand to some extent the decision of GAZPROM (in October 2006). Because they did not feel comfortable with the way project was going at that time. And for Russia the main interest should be focused on creating value for the Russian society. It was the same situation in Norway, in mid 90's. Norway was considered as the most political risky area for international companies, to enter the NCS because the government had such taxation system. The actual taxation of petroleum industry was taken up to 78 – 85 % per barrel, securing state's interests. What Norway has done with taxes, Russia is doing today with taking ownership".

Russian side, respondent argues that Norwegian companies did not suffer from GAZPROM's decision at all as they did not have any upstream projects in Russia at that time. They only had some negotiations and were discussing the possibilities. But Norwegian companies (Statoil and Hydro) were not thrown away from Shtokman project because they actually have never been included for sure.

Possible disagreement over the continental shelf delimitation

Norway is still negotiating with the Russian Federation on the delimitation of continental shelf and 200 miles zones in the Barents Sea (MPE, 2006). The disagreement over the marine delimitation of the economic zone and the continental shelf between Norway and Russia has not yet been settled. Norway claims that it should follow the median line principle, while Russia argues that it should follow the sector line principle. The difference represents some 175.000 square km, an area larger than the Norwegian North Sea south of the 62nd parallel (Figure 4.8). Negotiations have been going on for some 30 years (Austvik, 2006).

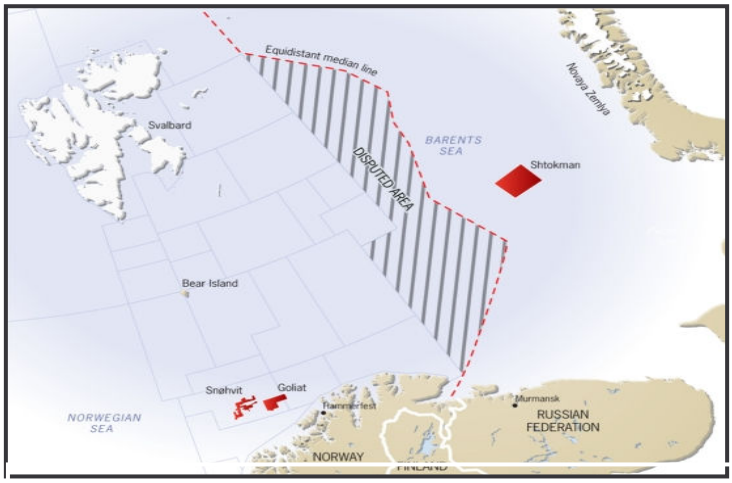


Figure 4.8. Disputed areas
***(source**: United Nations Environment Programme)*

Russia has argued that some sort of condominium could be established in the area without settled borders. Norwegian position is that cooperation in the area can only be established when a delimitation line is drawn. The disputed area of the Barents Sea certainly contains petroleum – possibly more than in the North Sea. It is widely recognized the significance of North Sea oil for Norway (Austvik, 2006).

Our respondents were agreed with the official position of their countries. For Norwegian experts the disputed area is an important issue that should be solved as soon as possible to speed up the cooperation between the countries. On the other hand the Russian respondents do not see any big problem in this disputed border. For instance,

> "Russia is not the country that solves its territory disagreements quickly. That would be politically very unpopular action."

Russia has even more disputed areas with Ukraine, China, Japan and all these negotiations have been taking long time. Russian authorities do not see any necessity in drawing the line now as they currently have enough resources to be developed in other places.

4.3.3. Legislative risks and barriers

The major role in Russian petroleum resource management system belongs to the state. Russia is a country with the federal principles of political governance. Power is divided into legislative, executive and judicial branches. The structure of the executive power is presented in Figure 4.9.

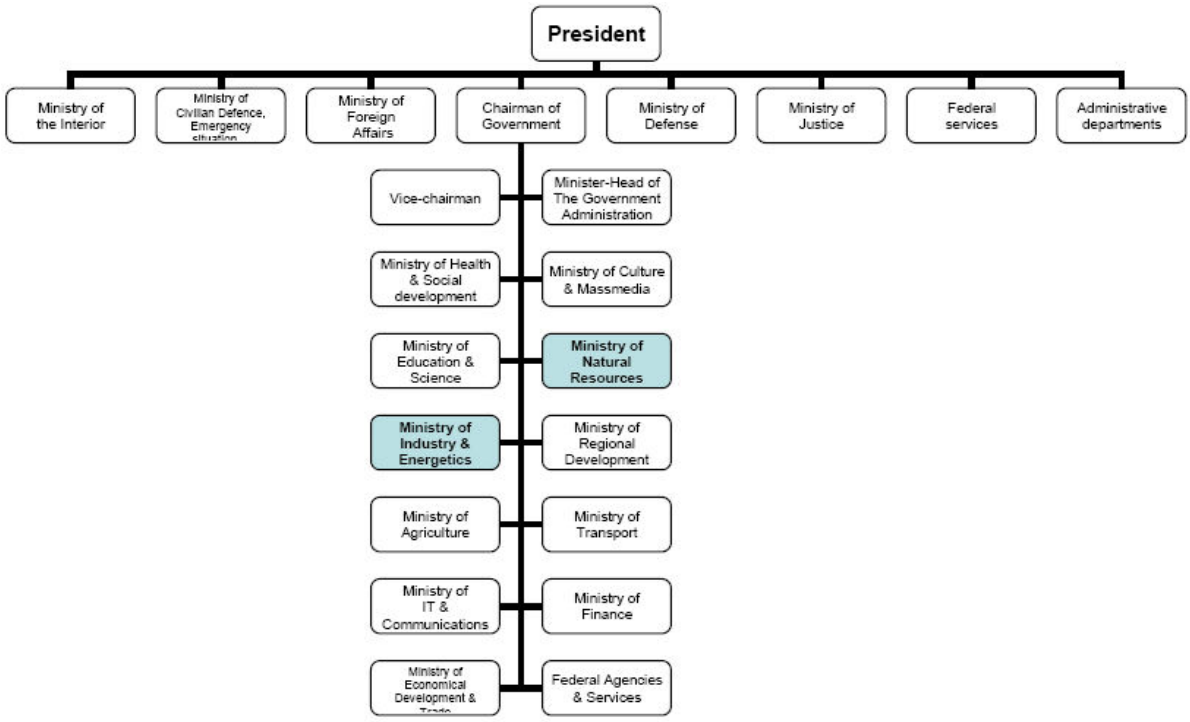


Figure 4.9. Executive power of Russian Federation *(adapted from www.govermant.ru, see Appendix A)*

The legal structure in Russia is very different from that one, which exists in Norway (see Figure 4.12). The structural unities directly responsible for petroleum resource management are marked with colour. These are the Ministry of Natural Resources and the Ministry of Industry and Energetics.

The structure of the Ministry of Mineral resources is presented in Figure 4.10.

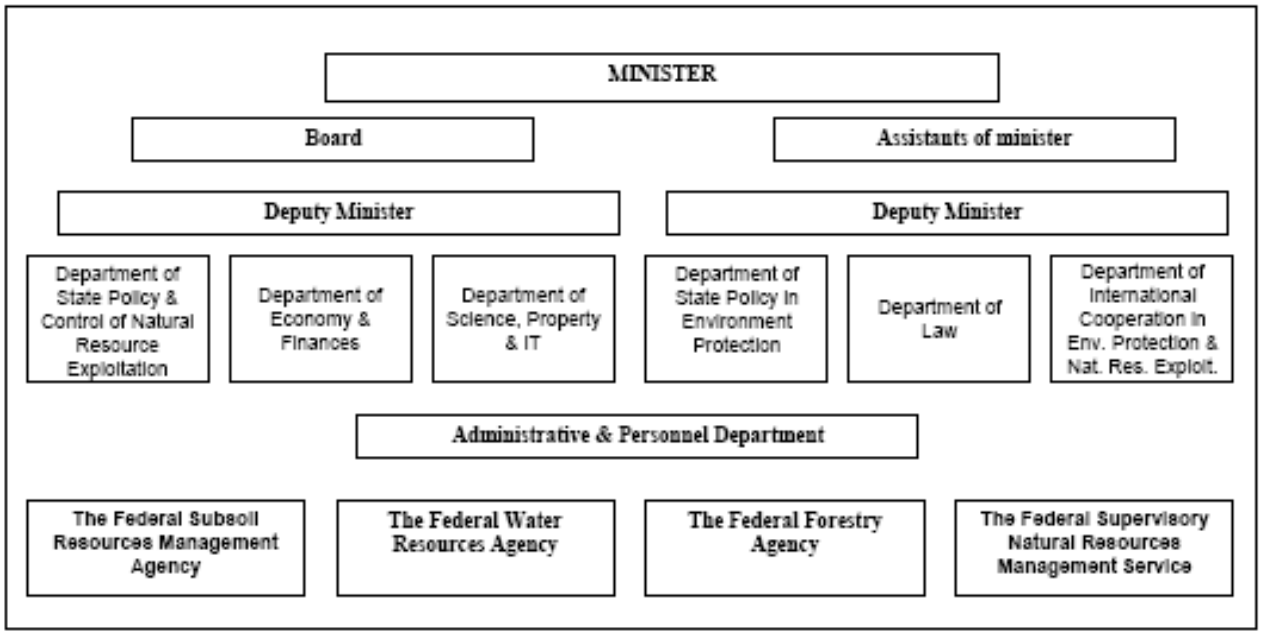


Figure 4.10. Structure of the Ministry of Natural Resources of the Russian Federation

(adapted from www.goverment.ru, see Appendix A)

The Ministry of Industry and Energetics of the Russian Federation is the important of Russian petroleum industry. It consists of the units that are presented in figure 4.11.

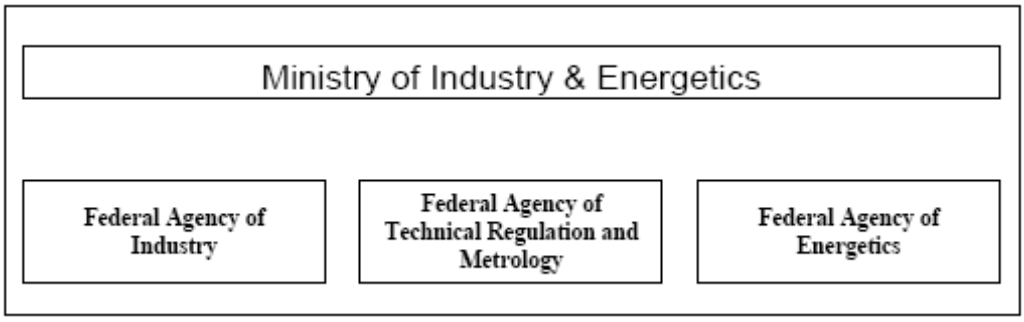


Figure 4.11. Structure of the Ministry of Industry and Energetics of the Russian Federation *(adapted from www.goverment.ru, see Appendix A)*

The Ministry of Industry and Energetics of the Russian Federation is responsible for the state policy and regulations in industry and fuel and energy complex, developing of mineral deposits (oil and gas fields) on the basis of agreements about division of product.

Some Russian experts think that nobody is personally responsible for strategic development of the oil and gas industry in Russia (Neftegazovaja Vertikal', 2006).

The structure of the Norwegian executive branch and the Ministry of Petroleum and Energy is presented in Figure 4.12. As indicated in figure, the Ministry of Petroleum and Energy has subordinate body – The Norwegian Petroleum Directorate. Moreover, the ministry takes part in the management of the state-owned corporations Petoro AS, Gassco AS and Gassnova, and the company with state ownership Statoil ASA.

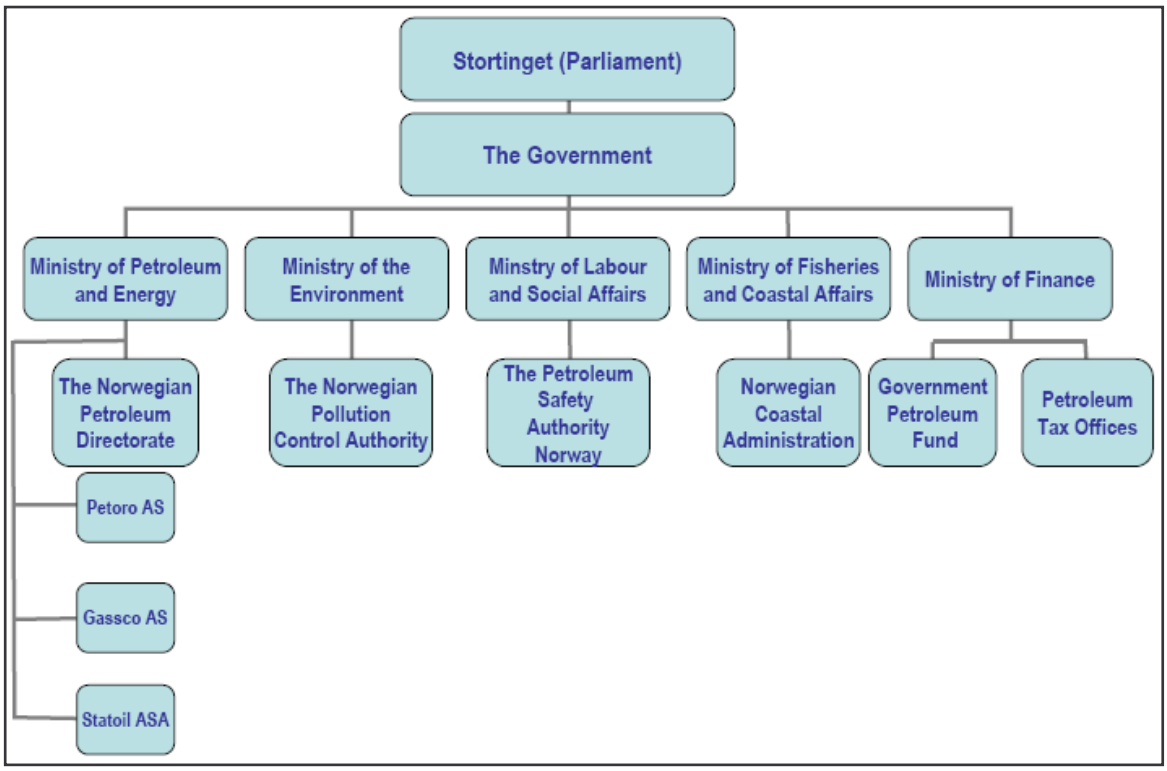


Figure 4.12. Organisation of the petroleum sector in Norway
(Source: Ministry of Petroleum and Energy of Norway)

The above mentioned Figures of legal structure of Russian and Norwegian petroleum sectors clearly show the differences in governmental control over energy industry in both countries. They illustrate more complicated legal structure in Russia which is the source of barriers for Norwegian oil-and-gas companies operating on Russian market.

Here we shall list the risks and barriers that were considered the most important for Norwegian organizations:

- ⇨ *Weak legal environment in Russia;*
- ⇨ *Tax risks and barriers;*
- ⇨ *Barrier concerning Russian custom regulations;*

- ⇨ *Barriers related to financing and insurance in Russia*

Each risk and barrier is described below.

Weak legal environment in Russia

There are many ministers in Russia and their responsibilities are sometimes not so clearly defined. At the same time some experts mean that the influence of ministries and departments at Russian market remained at low level - as before they had only the fixed instrumental functions, using which the policy of leading NPG and companies under their control is precisely executed. As Norwegian respondent said,

> "The other thing Norwegian companies are worried about is the process of bringing all strategic introspect into State Control that you have seen in Sakhalin, Kovytka, Kharyaga. The Federal Supervisory Natural Resources Management Service (ROSPRIRODNADZOR) is using all kinds of interesting advertisement to squeeze them to give access for the states to take over control. Of course this frightens foreigners".

There is an opinion that the ministries, which are responsible for industry functioning, in 2006 have finally transformed from the instrument of making state policy into the mechanism of lobbying the interests of the elite groups. Exactly this is the reason of all notorious scandals in the industry in 2006 (Gas and oil connections, 2006).

We got a contradictional opinion from Russian respondent,

> "It is obvious that SPA (Sharing Production Agreements) in that way they were signed during 1990s were not profitable for Russian Federation. And then interests of GAZPROM are here clear and logical. With the help of ecological leverages the company tries to get more preferable conditions in those fields".

Some of our respondents told us that legislature in Russia is very complicated and the departments are not coordinated between themselves. Some issues are to be approved by many different departments in Russia, when for example in Norway they can be managed at the level of one Ministry (of Petroleum and Energy). Other thing is that laws and requirements sometimes contradict each other. There are also some "unwritten laws and

regulations" the companies must abide otherwise they get "environmental" or other kinds of problems.

Tax risks and barriers

A survey carried out by World Bank (2004) identifies general constraints in operation activities, perceived by different companies. The main constrain is believe to be tax administration. Nearly 44% perceive tax administration as a barrier to their business. In Russia tax risk has become a major concern of Russian corporations since 2003 after YUKOS case when company had its key production unit, Yuganskneftegaz, sold off to pay the back taxes in an auction, which was widely seen as pre- arranged by the Russian government.

With the introduction of Chapter 25 of Part II of the Tax Code in January 2002, Russia now levies a flat tax of 24% on corporate profits. The new component rates are 6.5% federal and 17.5% regional. In addition, oil and gas firms face a myriad of taxes which include wellhead, export and customs duties on crude oil, excise taxes on natural gas, and a minerals extraction tax. Navigating through this maze requires intimate knowledge of regional and federal tax structures (Deloitte, 2006).

Compared with other economies around the globe, Russia still has too many taxes, which are often collected at short intervals (e.g. every quarter or even two months for VAT). Besides that, authorities – both federal and regional tend to modify the rules according to the budget situation. So far, all attempts to streamline tax laws and types of taxes have failed. Therefore, instability of tax system, a heavy burden, and arbitrary enforcement are a major deterrent to both foreign investors and development of business.

Barrier concerning Russian custom regulations

One of our Norwegian respondents mentioned Russian customs as a barrier in cooperation. The custom rules are very complex, non-descriptive and can differ from one custom point to another. New rules and regulations can suddenly appear without any preliminary notifications.

Another barrier closely connected to Russian customs is GOST[2] certification requirements witch are essential for the companies which have export/import activities within Russia and very difficult to follow for foreign companies.

> "Certification procedures experienced by Norwegian companies can be compared with "impenetrable jungles".

For companies which are going to arrange export to Russia, it is needed to get this Russian GOST-R Certificate. The European ISO 9000 is not recognized yet, and the only official standard is GOST-R - most well-known and popular among customers (GOSSTANDART, 2007).

Usually Certificate is required in two cases: 1. customs office, 2. realisation of products at Russian market. This Certificate is treated as the mandatory document for customs when crossing the boarder and for wholesale stores if tax inspection is taken place. That is why Russian organizations and export-companies can not work with non-certified products. The Certificate for building materials is also one of the necessary conditions for the object to be accepted by government commission. Certificate for equipment should be made for every factory or plant and service organisations.

Unfortunately, the European ISO 9000 is not accepted in Russia. Even if you have a translation of this Certificate into Russian, it is not valid. Here the only official Certificate is GOST-R, Hygienic Certificate and Fire Certificate. For the time being ISO 9000 is not known at the customs, and it is almost not being asked by Russian customers at all (GOSTSTANDARD, 2007).

Barriers related to financing and insurance in Russia

Next barrier for Norwegian companies due to respondent opinion is difficulties and expenditures related to getting project financing or bank loans. Russian banks are more expensive than Norwegian **(**Refinancing Rate of the Central Bank of the Russian Federation is

[2] GOST is the valid quality certification system in Russian Federation. (With the other words, it is called GOST-R Certification) GOST is very important for Russian companies and exporters to the Russia and carries the same meaning of ISO 9000 series certificates for the western companies.

10,5% in January 2007**).** Russian insurance companies do not always fulfill their liabilities. So the company's assets and property are not as legally protected as they are in Norway.

4.3.4. Technical risks and barriers

The development of oil and gas fields today is a very advanced technological process that requires significant innovations and know-how. Especially that concerns the development on the northern shelf. And Norway shows us the best example how extraction technologies have developed in the last decades and how advanced they have become.

Norwegian oil extraction history started in the 1970th with the discovery of Ekofisk field. Norwegians first learned to drill the 50 meter deep wells in the Northern Sea, after those 100 meters. The next step was developing of subsea installations and today they can extract hydrocarbons from even deeper waters (Kvendseth, 1988). New technologies make it possible to produce and transport oil and gas from remote offshore fields, located in severe climatic conditions.

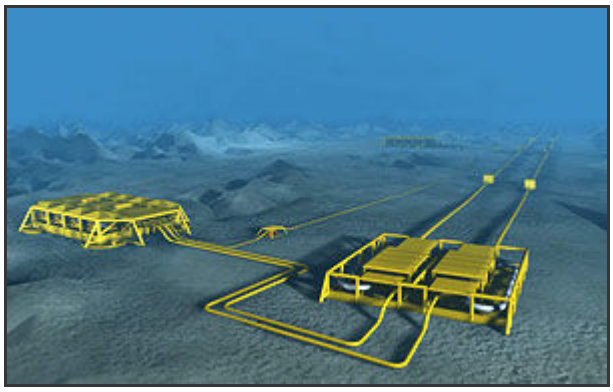


Figure 4.13. The subsea facility on the Ormen Lange field in the Norwegian Sea

(Source: Hydro, 2007)

Today's highly competent and specialized Norwegian petroleum "cluster" is well positioned to the development of fields on both Russian and Norwegian sides (Hydro, Statoil, Aker Kværner and others). The sub-sea technologies developed at Ormen Lange and Snøhvit, horizontal drilling expertise, laying of long-distance sub-sea pipelines, LNG-technology and other innovations are important elements with respect to "know-how".

Russia needs new oil and gas technology as never before. Big oil and gas fields were discovered on the Russian northern shelf and the country has to start developing them as soon as possible to maintain its oil and gas extraction at the same level.

As the interviews revealed, some opinions about the situation with technological development in Russian oil and gas sector and also how does this influence the cooperation between Russian-Norwegian energy companies. The following technological barriers that were identified throughout the interviews:

- *Old extracting technology in Russia and lack of offshore experience;*
- *Differences in technical standards in Norway and Russia;*
- *Lack of operating standards in arctic conditions.*

Let us describe them in turn.

Old extracting technology in Russia and lack of offshore experience

This is not a direct barrier for Norwegian companies or for Russian-Norwegian cooperation but the fact that Russia does not have sufficient offshore experience and technology influences the development or, in case of Shtokman, postponing the extraction of the important oil and gas fields on the Russian shelf.

We have got several opinions regarding technological potential of Russia in offshore sector. On the one hand, Russian companies do not have enough experience in offshore field development. On the other hand Russia posses an experience and potential in marine technology, big manufacturing and technical institutions. Major military shipyards such as Sevmash and Zvezdochka in the Arkhangelsk region (with some help of Norwegians) are transforming into oil-and-gas industry suppliers. Industrial relations include cooperation between Kimek, Zvezdochka, Kimek Offshore, Zvezdochka Engineering, Storvik & CO and Euro – Arctic Petroleum Society, representing a strong cluster with solid competence. This cooperation is known under the name of "The Northern link". While Kimek Offshore, Storvik & Co and Zvezdochka Engineering stand for contracts and marketing, former military Russian dockyard Zvezdochka performs manufacturing, maintenance works for Russian suppler vessels and drilling rigs (Kimek, 2006).

Our respondents told that,

> "Maybe Russia does not have all needed technology, but it has natural resources. And who has resources has the time, who does not have resources – does not have the time. Technology and experience can then be purchased or developed if one has time or money. If Norway and other countries will continue to stress attention on Russian dependence on foreign technology, this can provoke Russian GAZPROM to make things on its own."

When the Norwegian petroleum industry was in its infant stage, the American company Mobil was in 1973 assigned the role as an operator of the huge Statfjord field, although it owned only 15 % of it. Statoil owned 50 % but did not, at the time, have the competence to do the job. However, in 1987, Statoil competence had improved to such an extent that the company (according to agreement) took over as operator of the field. The arrangement proved to be very important as part of building the Norwegian petroleum cluster (Ryggvik 1997).

For Norway it appears very important to participate in the Russian offshore field development. If Norwegian companies were engaged on the Russian side, it would improve the chances of efficient regulation and protect the environment and sustainable resource extraction (Austvik, 2006). Most Russian companies will consider alliances with foreign companies having experience in deep waters, and Norway has obvious opportunities to pursue. Deep sea drilling, transportation and underwater production are an uncharted land for Russian industry. However, Norway is not the only country considering Russian Arctic shelf as an attractive target. As it was told,

> "GAZPROM has very little offshore experience, but it recognizes and understands it, and they need more technological input from the experienced companies. They had actually assessed our (DNV's) standards and they have decided to use some of our standards in its own GAZPROM 9000 company standard."

Extraction, transport and processing could be done in cooperation with other international companies with experience. American and European energy companies have already expressed their interest in Russian market for oil-and-gas related products and services.

Differences in technical standards in Norway and Russia

Russian technical standards and documentation is a big challenge for Norwegian operating and supplying companies. They are written in Russian and it will take an enormous deal of time and efforts to translate them into English.

Another issue is the lack of regulations and technical standards to govern offshore project operations. Russia needs to develop new standards that are based on internationals standards (such as ISO 9000). Efforts are overdue to substantially upgrade Russian manufacturing potential to make oil and gas field equipment corresponds to market requirements.

And not long ago we found out that GAZPROM together with PETROSERT are developing the new standard called GAZPROM 9001 which is supposed to be used in certifying supplying companies during the future development of Shtokman field (Barents Observer, 2007). This standard will be based on international standard system ISO 9001. This statement was mentioned by one of our respondents,

> "It will be good for Norwegian and international companies that GAZPROM has international standards as the basis for their requirements. This reduces the uncertainty and misunderstandings in cooperation. Compliance with ISO 900 from all vendors and manufacturers will make the field development more effective, because it means that contractual project quality requirements have to be built into the delivery from the suppliers."

And it is not only GAZPROM that needs international standards; it is the Russian Federation's departments and ministries that need regulations for offshore operations. They do not currently have it then this can be only the part of risk picture for Norwegian companies going to Russia. International (and Norwegian) companies follow the international standards (ISO 9001) in their work which are issued in English. And Russian regulators and Russian authorities will have difficulties in making sense of them, so everything needs to be translated from English to Russian. And it takes a long time and it is almost impossible to do it. So, there is a communicational gap, a big one.

Lack of international offshore standards in Arctic conditions

One of our Norwegian respondents has answered that there are real challenges relating to the Arctic environment. The Arctic environment is new to the whole energy industry; it is new to Russian and Norwegian companies as well as to international companies. The reason is that there is not any experience in this field so far. Even the fact that Norway has developed offshore standards; it does not have standards which are specially designed for Arctic conditions, which makes it a real challenge. And these challenges are related to the low temperatures, the vulnerable environment and remote locations just to name a few. All in all, it becomes really a big barrier. We suppose that joined efforts from both countries are required to develop special international standards for such conditions.

4.3.5. Economic risks and barriers

Leading energy exporting countries due to high oil prices on international markets usually experience high money inflows: Russia and Norway are both among of those. As a result, the energy sector of these countries became the main source of revenues for the government.

Taking natural resources and a diverse industrial base into consideration, Russia is potentially one of the wealthiest countries. Nevertheless, its economic situation has deteriorated since the beginning of Perestroika in 1985, which announced moving from a centrally planned economy to a market economy. The absence of a clear economical doctrine led to destruction of internal economical structure and declining of industries. Afterwards, Russia attempted to build an economy with elements of market capitalism, with often painful results.

The turnaround came in 1999-2000 with the start of the post-crisis recovery of the Russian economy. The World Bank and other observers of the Russian economy typically cite a number of factors as key in stimulating Russian economic growth after the crash of 1998:

- relative price readjustments and the collapse in the real exchange rate, which resulted in import substitution and provided a stimulus to domestic producers of consumer and manufactured goods;
- a decline in real wages and underutilised productive capacity of labour and capital as a result of the decline of Russian industry in the 1990s;

- a series of reforms encouraged by the government in the wake of the crisis that led to improvements in efficiency and industrial restructuring.

The most significant factor of all, however, was the rise of world crude oil prices from a low of around $10 a barrel in December 1998 (with an annual average of only $11.80 for 1998) to around $33 a barrel in September 2000 and around $65 in December 2006 (IEA, 2007). This provided a major injection of cash into the domestic economy.

Currently Norway is one of the largest oil and gas exporters (behind Saudi Arabia and Russia). The Norwegians have proven that oil does not have to be an obstacle to stability and long-term growth. Less than 20 years after Norway started producing oil, the Norwegians realized their geological good luck would only be temporary. In 1990, the nation's parliament set up the Petroleum Fund of Norway to function as a fiscal shock absorber. The purpose of the petroleum fund was to invest parts of the large surplus generated by the Norwegian petroleum sector (mainly taxes of companies, but also payment for license to explore). It reached a portfolio value of over NOK 1.784 trillion (US$ 292.5 billion) as of 2006 (Regjeringen, 2007).

Similarly, the Russian Stabilization Fund was set up in January 2004 and intended to cover future budget shortfalls in the event of an oil price fall. It is formed by extra revenues from crude oil and gas exports and operated by the Finance Ministry of Russia. Its assets exceeded $108 billion in April 2007 (GKS, 2007). Initially, the Fund serves as an important tool for absorbing excessive liquidity, reducing inflationary pressure and insulating the economy from volatility of raw material export earnings (Ministry of Finance, 2007). The capital from the Stabilization Fund may be used to cover the federal budget deficit and for other purposes, as for example it was used to pay off the external debt of the Russian Federation. According to the World Fact Book's estimations on 30th June 2006, Russian external debt ($287400) is lower than Norwegian ($350300).

Russia is extremely dependent on the commodity and energy sectors for its economic growth. The problem is acknowledged by the authorities, for example by Mikhail Kasyanov in January 2004 when he as Prime Minister stated that "in spite of numerous changes in the Russian economy, Russia is still too dependent on primarily commodity exports" (New Europe, 2006: 26). Energy carriers (oil, gas, coal etc.) together account for approximately 55

per cent of the value of Russian exports. Oil and gas exports continue to be the main source of hard currency, but declining in energy prices can hit Russia hard.

Our respondents mean that economical and investment risks in Russia are not higher than in other transitional economies and have reduced significantly in the last years due to successful economic reforms. Here, we try to determine some economic risks and barriers:

- *Investment risks in energy projects;*
- *Risk related to liberalization of energy market;*
- *Trading barriers and WTO problems.*

Here is the description of each barrier based mainly on secondary data.

Investment risks in energy projects

Those risks are generally described as part of the investment climate and market structure of the gas sector, energy sector, or the economy at large. These risks often create additional cost on the source, transit and recipient countries along the route. There are thus inefficiencies caused by inadequately addressed project risks and by lacking country investment climate and market structure.

Reducing perceived investment risks in the oil and gas sector in oil and gas-rich countries by developing and implementing multilateral instruments and “soft law” may be regarded as a major avenue for promoting investment, improving the chances of specific projects to succeed, and generally stimulating economic growth.

In 2005 there was a proposal of the Russian Ministry of Natural Resources to limit investment in so-called "strategic energy fields" only to companies with a minimum of 51 percent Russian ownership. The proposal sent chills throughout the foreign investors' community in Russia (Krastev, 2005).

Risk related to liberalization of energy market

These problems result in a high probability of unbalances in the long-term contracts that anchors the cross-border gas trade. The EU, Norway and Russia share the interest in maintenance of long term investments and market stability. In price terms, this means that no

one should be interested in too high or too low prices on gas. However, given these constraints, exporting and importing countries may hold diverging views on how high prices should be. Norway's joint interest with the Russians to maintain prices at a certain level is a new element in relation to its big neighbor in the East, as well as to the EU. In a liberalized market, prices will vary more according to actual supply and demand for gas, and Norway and Russia share the interest in avoiding an oversupply in the market that could make prices fall. This parallels the interests between OPEC countries in the international oil market to maintain prices at a stable, but reasonable high, level. The high price of gas on European markets is a common good for Norway and Russia.

Trading barriers and WTO problems

The fact that Russia is not fully integrated in the international economy, as for example in terms of membership in the World Trade Organization (WTO), has had some controversial impacts on Russia and its economical relationships with other countries. As our respondent mentioned,

> "Today Russia's international energy strategy includes increasing its participation at the European market up to 30 - 33% and entering directly to European markets without dealers. For this GAZPROM participates in building up the North-European gas pipeline and tries to buy gas assets in European countries (for example, in England). It is an aggressive policy. But it is an open policy. And it is namely a trade policy. But the main thing is that this Russian policy has no alternative. Europe needs Russian gas, just as Russia has to sell it. The question is that the West subjectively refers to this objective situation."

Indeed, WTO accession would be both an actual and symbolic step towards Russia's harmonisation with international economic policy practices and bring it in line with the new paradigm of FDI (Foreign Direct Investments). WTO accession will bring about fundamental competitive advantages to Russia in the medium to longer term (Ögütçü, 2002). This is believed to be also barrier in Russian-Norwegian cooperation. And there is an opinion our interviewee,

> "Sooner or later Russia will become a WTO member and norms of the law will be adapted according to WTO's requirements. After the accession of Russia into WTO,

> the arbitration will be handled by international authorities, and these bodies will investigate controversial issues on the governmental or corporate level. And they will find out the solutions for the business problems, and that is a great advantage. Russian companies will be better adapted to international business environment, for Norwegian companies it is the chance to make decisions with the help of WTO's international authorities. The more economy is open, the more comfortable it is to work in it! "

4.3.6. Environmental risks and barriers

The threat of a deteriorating environmental situation in the country and depletion of natural resources depends directly on the state of the economy and society's willingness to appreciate the global nature and importance of these issues.

Russians and Norwegians historically had some different attitude to the usage of natural resources and pollution. Norwegian policies are made to stimulate energy-saving technologies using the renewable sources of energy. Norway has the highest gasoline and car taxes in the world, aiming to reduce the use of fuel-inefficient cars by the country citizens.

Soviet and then Russian policies have been prioritizing the industrial and military development. The country seemed to be so big with so much water and forest resources that careful attitude to the environment was not considered so important. The territory of the Soviet Union was divided in industrial regions with much pollution and recreation regions and national preserved areas with no heavy industry allowed. People that were living and working in the industrial areas had free opportunity of spending their vacation with children in the southern recreation regions to retrieve health.

Russia still has not yet transformed into energy-saving society. The gasoline and car taxes are very low and most domestic cars are fuel-inefficient with a high pollution level. Russian block houses where about 80% of Russians live use the Central Heating[3] system that doesn't allow them to regulate the temperature in the rooms (the only way is to open or close the window). In other words Russia produces and uses a lot of energy ineffectively. And the consequences for environment are very high.

[3] Central Heating means heating from a central source, as power plant that generates energy and hot water to warm householdnings

In the beginning of the last decade of the 20th –century a new way of resource management was introduced that was mainly based on fiscal instruments, whereas technical regulations were ignored. Privatized petroleum companies could choose more or less freely the ways and technologies for production. Moreover, in the beginning of reforms Russia had legislation that was oriented on regulation of access rights but not rational and efficient resource use. Only after 2002 the discussions about technological issues were started on federal level (Neftegazovaja Vertikal' 2006).

Nowadays one of the priorities of the energy policy in Russia is to minimize the negative environmental impacts of the energy-sector. This was stated in the presidential decree № 472 from 7th of May 1995 "On the main directions of the energy policy and structural reorganization of the fuel and energy complex of the Russian Federation for the period until 2010".

According to Russian legislation each company that is going to participate in petroleum production should meet certain requirements and pass certain state-defined procedures. There are the following stages of petroleum field exploitation: 1. Declaration of intentions; 2. Tender; 3. Granting a license; 4. Technical and economic assessment of the project (feasibility study); 5. Working draft preparation with the environmental impact assessment and plan for civilian defence and elimination of consequences of emergency situations (like oil spills, etc.); 6. Examination of the project and approval by the state bodies responsible for certain areas; 7. State expertise (federal level); 8. Granting permission to install the platform on the drilling point; 9. Monitoring in process of operation.

All the above-mentioned facts prove that environmental issues are not ignored in Russian normative acts. Another question is if it is the main priority or not. What is more or less clear is that environment protection is situated among the other issues but it does not get any additional attention or priority in comparison with other things.

Environment is a very sensitive topic in Russian-Norwegian cooperation and a lot have been written much written about this in mass media. Our respondents mentioned the most noticeable risks and barriers are as follows:

⇨ *Barrier of lack of environmental standards for offshore fields in Russia;*

- ⇨ *Danger for Norwegian environment pollution from Russian activities;*
- ⇨ *Lack of consistency in environmental control.*

Each of these standards is described below.

Barrier of lack of environmental standards for offshore fields in Russia

This barrier is extremely important because present standards (Russian Standard SP 11-102-97 «Geotechnical and ecological survey for construction», dated 21st July 2001 and issued by Russian State Committee for Construction and Housing Maintenance and Utilities) are for land based fields. No special standards for offshore oilfield production exist in Russia so far.

Production of the Shtokman field will take place in an unsettled area, so flora and fauna of the Barents Sea will suffer from increased anthropogenic pressure. An estimation of the real impact of the project on the environment will be difficult because of insufficient research. To estimate the impact of the project on the environment (a so-called EIPE document), it is necessary to develop the program of sea, near-shore, shore engineering and ecological research for 5-10 years. It is also necessary to create a database on environmental conditions and flora and fauna at the area of probable pollution before construction starts (Saplinova, 2005).

> "This is related to the fact that offshore operations are new to Russia, and regulations and standards are not written for offshore conditions. A lot of regulations are in the process of being written, but it is a slow process."

The Barents area with its cold climate and waters represents a rather vulnerable environment, concerning wildlife, bio-diversity, fisheries and nature. In 2003, the Norwegian government decided to continue oil and gas exploration in the southern parts of the Barents Sea minus some areas defined as especially vulnerable. Environmental regulations are stricter than further south on the NCS. A more integrated plan for the entire Barents Sea concerning resource management, the environment and economic and political interests was presented in spring 2006 (Ministry of Environment, 2006).

The threat to the environment will be even higher in the Arctic's harsh weather and ice-bound conditions (where the risk of emergencies rises, primarily the risk of hydro-carbon flows).

Liquidating the consequences of oil spills will be more difficult, and low temperatures slow decomposition of polluting substances. Ecologists are also anxious about the potential damage to fragile northern ecosystems during the production of oilfields located on the Arctic shelf.

And here is not only Russia that does not have enough experience in Arctic conditions, but from our Norwegian respondent we got information that even Norwegians do not have experience and environmental standards in severe conditions such as Russian part of Barents Sea which is covered with the ice.

Risk of pollution for Norwegian environment from Russian activities

A very important part of Norwegian thinking about the High North is the vulnerability of the northern environment. Environmental and fisheries interests fear that pollution and spills related to petroleum activities will have a serious negative effect on biodiversity and fish resources and reduce the catch or lower the value of fish from the Barents Sea. These fears are substantiated by results from marine research institutions and experience from other areas of the world. For these reasons development of Norwegian hydrocarbon resources in the North has been cautious. Stricter environmental regulations than elsewhere on the Norwegian continental shelf are applied in the areas where petroleum activity is allowed.

> "One of the main tasks of the petroleum industry is to demonstrate that it can operate not only cost-effectively, but also safely and without harming the Arctic environment. Meeting this goal will require new knowledge, new technologies and close co-operation. This task has high priority for the Norwegian Government and for the industry." (Speech at Conference on "Post Transition Russia, Risks & Rewards" 27.06.2005: Norwegian ex-prime Minister Kjell Magne Bondevik)

The biggest environmental threats at present are considered to come from the Russian side. There is already a risk of oil spills from the increased traffic of Russian oil tankers off the Norwegian coast. There are also threats from nuclear accidents and handling waste in the area. The additional concerns raised by an increased petroleum activity, lead to calls for greater cooperation with the Russians. The industry has argued that the best way of influencing Russian environmental standards and practices is by showing practically how it can be done on the Norwegian side, and by offering partnerships based upon environmentally sound practices on the Russian side. This would reduce environmental risks for the

Norwegian coastline and waters as well. However, the situation also demonstrates a need to create a broader European and international understanding about these challenges (Austvik, 2006).

Lack of consistency in environmental control

Russia has many of the same interests as Norway with regard to protection of the environment and resources in the North and has proclaimed the importance of environmental considerations. Russia has a well established system of environmental impact assessments for all kinds of industrial projects, and it has environmental regulations that in several instances are stricter than in Norway. The impact assessments are, however, usually carried out at a late stage in project development, and Russia lacks a more integrated approach in planning before individual projects are developed.

Though Russian ecological standards are very strict (for example, the company ExxonMobile had to delay the project Chaivo-6, finding requirements of Russian ecological laws too stringent and practically impossible to follow), they do not stipulate a normative act governing offshore oil production. Many Norwegian and some Russian experts think that Russian government uses environmental standards (and ROSPRIRODNADZOR department) to suspend the activities of unfavorable for government companies. And this was expressed by our respondent,

> "Interests of GAZPROM are clear; everything comes to the fact that GAZPROM is trying to get more profitable conditions during negotiations about taking part in Arctic Shelf's gasfields. Norwegian and Russian authorities came to a common ecological agreement. And Norwegian side mentioned that Russian ecological requirements are very strict. But it is not an "ecological cudgel" with the help of which GAZPROM is trying to grab the property from indigent foreign companies, which invested huge amounts of money, labor and intellect. Companies which strictly follow the requirements operate very successfully on Russian oil-and-gas-market."

However, some Norwegian respondents believe that Russian environmental requirements are too strict and impossible to follow. At the same time, some companies can "buy off" those requirements and continue to work as before.

In Russia ecological problems are resolved quickly and effectively when allies of ecologists are creditors, investors, customers, relatively speaking – money. The general direction of ecological problems' solutions in Russia is transformation of "ecology" to the factor of competitive advantage on credit, investment and product markets (Martynov, 2006).

The main negative peculiarity of Russian system of governmental (and environmental) regulation was and still exists in the individual determination of norms affecting the environment and use of resources, which is brought into action by civil servants for every specific enterprise.

4.4. Summary

Russia and Norway are major oil and gas exporters and neighboring countries in the North. And this chapter begins with the background of the both countries and description of mutual interests in energy cooperation.

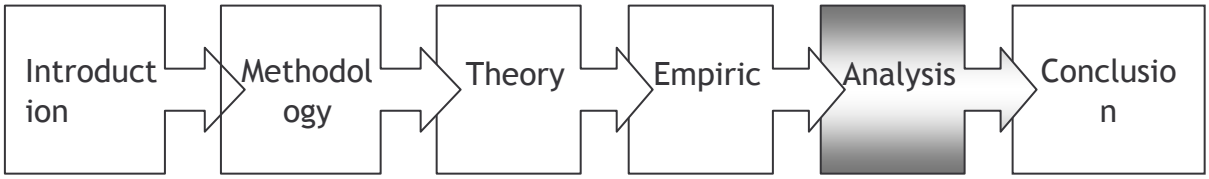
After that, we determined and described in detail six main groups of risks and barriers (socio - cultural, political, legislative, technical, economic and environmental) for Norwegian companies and organizations based on primary and secondary data. In spite of the fact that all risks and barriers are closely connected and even sometimes overlapped, we actually made attempts to make a division between them.

Most respondents mentioned that socio-cultural risks and barriers are the ones more often faced by Norwegian companies in Russia. Here major of them have experienced challenges but at they same time they learned a lot and made a significant progress. Political and economical situation in Russia has changed a lot during the last decade and that reflected the change of political and economical barriers perception by Norwegian companies. Some changes created more difficulties for them while some other factors have improved and became more predictable.

Risks differ from company to company, from branch to branch, from region to region. There are companies that even do not mention any problems while others face a lot of them. In most cases it is all about how prepared they are before going to a new market. Unfortunately, we

can see unsuccessful examples of companies that failed because they simply were not prepared.

5. Analysis



The purpose of this chapter is to analyze information gathered and described in the empirical part. Firstly, by applying the cultural approach, which is presented in the theoretical part, we want to look at cultural indices of Russia and Norway. Then, we discuss if there are any links between Hofstede's indices and different business cultures. Finally, we are intended to give the evaluation of risks/barriers and how they can be tackled by Norwegian companies.

5.1. Cultural Indices

Good business relationships across cultural groups and geographic boundaries develop over time by paying attention to small, but important, details. By paying attention to the differences in culture, companies will be in a position to develop mutually beneficial, long-term business relationships. As practice shows, business is always done by people with a given cultural background, and in a given local environment. Before making business agreements, the representatives from two different countries perceive each other in a specific, local sense. On ideological level, Norwegians and Russians may thus interact as "business people", but on the level of practice they must still meet as "Norwegians" and "Russians". Thereby, four of Hofstede's cultural dimensions were utilized as categories for interpretation in our research because Hofstede's work focuses on cultural issues.

The core of Hofstede's model of culture is presented with values, or by his own words: "Broad tendencies to prefer certain states of affairs over others" (Hofstede, 1994:8). These values come form the most hidden layer of culture. Values as such represent the ideas that people have about how things "ought to be". Hofstede also emphasizes the assumption that values are strongly influencing behavior. It is possible to describe culture as a shared set of basic assumptions and values, with resultant norms, attitudes and beliefs which "manifest themselves in systems and institutions as well as behavioral patterns and non-behavioral items". There are four dimensions[4] of national culture based on value which are: *Power*

[4] Here we do not take into consideration the Long-term orientation, fifth dimension was added after the original four, to try to distinguish the difference between the East and West, and mainly focused on differences between Chinese and European business cultures

distance; Individualism; Masculinity and Uncertainty avoidance. In order to understand cultural context, working values and national issues we begin by analyzing the Norwegian and Russian business culture which was described in the empirical part.

In research made by Hofstede, Russian masculinity/feminity index was 28 and Norwegian was 8; where index 1 was nearest to the most feminine while index 100 belongs to the most masculine society. The high femininity scores for both countries mean the dominance of such values as friendly atmosphere, secure working place, convenient and comfortable working conditions and cooperation (see Table 5.1). But there are still 20 points in the difference between Russia and Norway, where Russia is a more masculine country, than Norway.

Preferred in Feminine organizations	*Preferred in masculine organizations*
• Friendly atmosphere • Position security • Physical conditions • Cooperation	• Advancement • Earnings • Training • Up-to-datedness

Table 5.1. Values of feminine and masculine cultures

The power distance research summarized in Table 5.2 shows that companies in Russia (with relatively high power distance index - 58) are based on a greater centralization and vertically organization. Norway has a lower power distance score - 31, which means that companies are usually less centralized and have flatter organization structure. Those findings were also supported by our respondents during the interviews. Norwegians have a lower power distance, and employees have almost the same rights as employers. This is in great contrast to Russia, where all rights and privileges are concentrated in the hands of fewer persons, located on the top of the company's hierarchy.

Consequences for organizations with lower power distance	*Consequences fro organizations with high power distance*
• Less centralization • Flatter organization pyramids	• Greater centralization • Tall organization pyramids

Table 5.2. Power distance patterns in organization

So, our evidence shows that Russia is a more hierarchically build society with immense distance and centralization of power. The tradition of respecting the authority is still strong in contemporary Russian society, where the governmental departments as well as corporate department in the companies are usually not interconnected with each other, but joined to the central core or to a strong and autocratic leader.

Let us look at *uncertainty avoidance* factor, where Russia has relatively high index – 68, compared to neighboring country Norway (with index 50). Both countries have a nearly average index so they seem to combine the features from both rows of Table 5.3. As our research shows, Russians still are generally keener on uncertainty avoidance than Norwegians. That can be explained by the fact that there are less uncertainties and risks in Norwegian society as today the Norwegian social system provides many benefits to its citizens and businesses. On the contrary, the Russian society still strongly relies on strict rules, laws and regulations, and employees tend to remain longer with their present employer. In Norway people are used to less structure in their lives and are not as concerned about following rules and procedures.

Consequences for organizations with low uncertainty avoidance (index 1-50)	*Consequences for organizations with high uncertainty avoidance(50-100)*
• Less structuring of activities • Fewer written rules • Organizations can have many forms • Managers more involved in strategy • Interpersonal and flexible managers • High labour turnover	• More structuring activities • More written rules • Much standardization • Managers more involved in details • Managers task oriented and consistent their style • Lower labour turnover

Table 5.3. Consequences for organizations with high and low uncertainty avoidance

The fourth dimension is *individualism\collectivism*: Russia has index 69 (more collectivistic attitude) and Norway has index 41 (more individualistic culture). This can be explained by the fact that Russia had long communism traditions from the Soviet period, and even the rapidly imported ideas of market economy, have not changed the mentality of Russians. On the

contrary, Norway is a country with relatively long individualistic culture. This means that Norwegian companies have a moderate concern for the employees, that employees work for money and the companies have fair policies and practices made for all the members of the organization (Table 5.4). However, we should mention a quite new phenomenon for countries with individualistic dominance – team work which is very successfully implemented in the Norwegian society.

Consequences for organizations with high collectivism (50-100)	*Consequences for organizations with high individualism (1-50)*
• Work for team • Organizations has great influence on members' well-being • Employees expect organization to defend their interests • Policies and practices based on loyalty and sense of duty, and vary according to conditions	• Work for money • Organization has moderate influence on member's well-being • Employees are expected to defend their own interests • Policies and practices should allow for individual initiative and apply to all

Table 5.4. Characteristics of organizations with low and high individualism/collectivism index

If two companies where one company comes from a high uncertainty avoidance society (Russia) and another from a lower uncertainty avoidance society (Norway) are going to establish some kind of cooperation, first of all, they need to investigate the management practices of each other to identify potential areas of conflict and to determine whether such conflicts can be resolved. As our findings show, this is not as easy as it seems to be. We believe that a good starting point is studying and understanding the cultural differences between two countries with respect to the dimensions described above.

As the research shows, there are many cultural differences between Norway and Russia. But there are still some shared values that are very important to both countries. These shared values and views should be a starting point for a common decision-making and establishing cooperation.

Norwegian and Russian human cultures have very much in common while business cultures are quite different. One important difference is that Russia is a relationship-based society while Norway is a more rule-based society. This has to do with the social order and organization of the society (Hooker, 2003). And there is of course the difference in language and in size of the countries.

Thus, risk and barriers faced by Norwegian companies on the Russian oil-and-gas market can be understood by applying theory of high perceived psychic distance. As one of the respondent said, "We were about to enter a different world", and this made it logical to assume that the market was not studied before and the source of information about marketing environment there were either absent or scarce. So, some years ago the perceived psychic distance between Norway and Russia was extremely big. But as long as business environment in Russia is getting more similar to the Western one, which includes gradual improvement of legislation and other higher-order institutions, the Norwegian oil-and-gas companies are experiencing less risks and barriers.

In the table 5.5, on the next page, all the risks and barriers that were defined and discussed during our research are summarized and classified, using the theory of risks and barriers, which was described in the theoretical part.

As it is shown in the table below, there are six types of risks and barriers. Each type of risk which was discussed with our respondents will be analyzed in this chapter. Moreover, we try to make some suggestion concerning if it is possible or not to reduce or diversify these risks and barriers and how can Norwegian companies cope with them.

Socio – Cultural risks and barriers	Political risks and barriers	Legislative risks and barriers	Economic risks and barriers	Technical risks and barriers	Environmental risks and barriers
The lack of trustworthy information The wrong perception of information about Russia and Norway Linguistic barrier Bureaucratical barrier Different relationships within the company Bribery and corruption Shortage in skilled oil and gas staff	Excessive political involvement in energy business Risk of using "Energy weapon" by Russia against neighboring countries Russian political influence on choosing strategic energy partners Unpredictability and instability	Weak legal environment in Russia Tax risks and barriers Barrier concerning Russian custom regulations Barriers related to financing and insurance in Russia	Investment risks in energy projects Risk related to liberalization of energy market Trading barriers and WTO problems	Old extracting technology in Russia and lack of offshore experience Differences in technical standards in Norway and Russia Lack of operating standards in arctic conditions	Barrier of lack of environmental standards for offshore fields in Russia Danger for Norwegian environment pollution from Russian activities Lack of consistency in environmental control.

Table 5.5. Classification of risks and barriers for Norwegian companies on the Russian oil-and-gas market

5.2. Socio-cultural risks and barriers

Cultural difference is probably the largest problem for Norwegian oil and gas companies in cooperation with Russia. Cultural and social norms are important factors both for Norway and Russia. However, both Russian and Norwegian cultures are in a sate of flux as they get more integrated with each other and in the world economy.

As we have mentioned above in the empirical part, corruption remains as the important barrier for Norwegian oil and gas companies in Russia. The Nordic countries are considered to be the most trusting and the least corrupt in the world, with mostly high-to-above average levels of economic equality (Uslaner, 2006). Controversially, there is a signifact economical gap between the richest and the poorest social layers in Russia, and the corruption level is therefore much higher. Corruption is a part of Russian reality which is known and perceived by Russian society. At the same time Russia is not the only country exposed to it, and there are some examples of foreign companies, which can operate in Russia without having to give bribes. However, these issues were not raised by our respondents as a serious obstacle. We assume that the only way to overcome corruption, and in particular bribery, is to avoid controversial situations leading to illegal activities. Using the services of experienced consulting companies may serve as a good intermediate tool for successful activities on Russian market. Big international companies have less problems with corruption as they work directly with Russian national companies and can skip many stages in dealing with different authorities.

When describing the Russian – Norwegian relationships in our research, we found out many positive appraisals of Russian educational level by foreign partners. However, these appraisals are related mostly to the technical expertise and not to language skills. Since languages are, to some degree, a part of the culture, the linguistic barrier was identified as a socio – cultural issue. Language is one of the main barriers for Norwegians doing business in Russia. The majority of Russian managers communicate with their Western counterpart with the help of a translator. The translator is the keyman to overcome the linguistic barrier for Norwegian organizations. As well as hiring a bilingual staff who can communicate directly with business partners without the need for an interpreter, this is clearly the most efficient approach for dealing with language barriers.

As we have mentioned in the empirical part there is the lack of information coming from the Russian authorities. And such organizations as Innovation Norway (Innovasjon Norge) and North Center for Business (Nordområdesenter) are designed to assist companies in doing business on Russian market, provide them with necessary information and partially reduce uncertainty concerns.

As our research reveals, the subjectivity of media in modern society becomes stronger. Media have a clearer understanding of their function and possess their own logic of expression the latest events on the oil-and-gas market. Norwegian journalists cooperate a lot with Bellona and other organizations and therefore they are very well informed. Russian media are often depended of oil-and-gas majors and write carefully about risks. The journalists in both countries are inclined to national interests and it is quite logical. *This type of barrier can be easily overcome by absorbing information from international resources or by broadening the sources of getting information.* As for example Barents Observer (news portal) and Euro Arctic Petroleum Newsletter (electronic newsletter) which collect and publish oil-and-gas related information from Russian, Norwegian and other international sources.

Socio – cultural risks and barriers are regarded to that type of risk and barriers that can be reduced to the minimum level or completely eliminated by applying the rational measures.

5.3. Political risks and barriers

As it was discussed in the empirical part, the Russian political situation has changed significantly during the V. V. Putin's presidency towards nationalization of natural resources and petroleum industry. Many of our respondents agreed on opinion, that today's energy sector is much politicized. This can be explained, according to Simonov (2005), by the fact that "one of the main purposes of politics is to control over natural resources in the country. And as hydrocarbons become strategic resources for Russia, so the state obviously tries to control and influence the energy sector".

Another risk which was mentioned in this context is that Russia uses political motives when choosing a strategic partner for energy cooperation. As for example, that can be seen in the

case with rejected short list of companies for Shtokman field development by GAZPROM, and its decision in October 2006 concerning about sole field developing.

The political risks are still high in Russia and we, according to our interviews, can conclude that this *type of risks is higher for top level petroleum companies*, such as Statoil and Hydro, which are used to work as field operators and have strategic interest in getting a share in different Russian oil and gas fields (especially as big as Shtokman) in upstream activities. Their political risks can be reduced by buying a large stake, still not exceeding 49%, in Russian petroleum joint-stock companies.

Norwegian supplying and energy consulting companies (such as Aker Kværner, Vetco, Rambøll, Det Norske Veritas) are not subjected to political risks in that extent. One example is the Norwegian certifying company Det Norske Veritas, which continued to work with Russian Energy Company GAZPROM as before, and it even got more new contracts related to the building of the Nord-Stream gas pipeline.

Based on our interviews we got one of the possible explanations why GAZPROM's decision about the use of 100 per cent of the Shtokman field resources on its own was predictable. The company explained this on its website in the following way: "International companies failed to offer assets matching Shtokman's reserves in amount and quality". In other words there was no company able to exchange their own assets with GAZPROM for getting the share in the Shtokman field. But negotiations between Statoil and GAZPROM are still going on *and possibly Norwegians should offer some of their energy assets (like co-ownership of some pipelines to Europe) in exchange for share in Russian petroleum fields.*

The Disputed Area in Russian-Norwegian continental shelf is a clear political issue that represents a barrier for Norwegian-Russian energy cooperation. Russia as a big and significant country, has preferable position in this case and does not hurry to draw the border line: Russia has more undeveloped resources in the Siberian part of the country which could be prioritized, and *Norway needs to use all its diplomacy to solve this issue as soon as possible to encourage petroleum activities in that area.*

5.4. Legislative risks and barriers

Decentralization of legislative system in the Russian Federation has a negative consequence for Norwegian oil-and-gas companies. It was quoted as the important barrier restraining activities on the Russian market. As the empirical research showed, the range of perceived bottlenecks in the Russian legal framework is quite big: from unpredictability of the Russian *Customs legislation* till absence or unclearness of a *system of laws and regulations defending foreign direct investments and property*.

It is necessary to point out that transformation of old (Soviet) higher-order institutions is not following the tempos of transition process in Russia. This dimension of barriers includes still undeveloped banking system, lack of information about the market, unpredictable and difficult customs – all the factors, which make the *risks of working in Russia higher than domestic risks.*

The main characteristic of this group of barriers is that *big companies work directly with governmental authorities though they drop a lot of possible legislative routines.* In contrast, smaller companies face much more barriers connected with the Russian system of legislation.

Taking all the above mentioned into consideration, it is necessary to say that legislative barriers do not discourage Norwegian companies from entering to and working on Russian market. *With the passing years the general experience and understanding of Russian laws and regulations has grown among Norwegian and other foreign companies.* They learned a lot how to cooperate with Russian companies: employ Russian specialists, use consultants and translators, and study Russian rules and laws. Many international educational programmes between Russia and Norway, such as Rosneft MBA energy program at Bodø University College, have positive influence on political cooperation and experience exchange between Russian and Norwegian companies' managers.

5.5. Technical risks and barriers

Russian companies today are facing increased complexity of oil-and-gas fields so making it difficult to manage technical risks. Although Russians primarily seem to wish to develop oil and gas fields by their own efforts, political objections may be outweighed by technological

advantages in the West. Since most Russian companies currently lack the technical ability to operate on the shelf, most will probably be interested in forming an alliance with a more experienced foreign firm. Thus commitments from Norwegian companies can also be an important driving force.

At this time GAZPROM is more concentrated on onshore and non remote offshore fields. These fields will be developed first of all and it may be the right decision because this is a chance to work out technologies on easier oil-and-gas fields so it will be easier to work on Shtokman in the nearest future. And it is quite possible that own technologies will be developed and they will allow not to be dependent on Norwegian knowhow. And if Russia uses the energy weapon than Norwegian companies can use technological weapon. The more Russia is convinced that it does not have technology, the higher is desire to work it out itself. And there were precedents in the history, when USA banned to buy pipes for building pipelines than USSR in a short period of time got familiar with the technology of production of these pipes and compression stations, and managed to follow the contract requirements to export gas to Western countries. The most reasonable way for Norway and Russia is to continue cooperation and try to find optimal solutions. And any kind of position from Russian or Norwegian side will be considered as a barrier for business.

Another barrier is that Russia's oil and gas fields are aging. Aging equipment and poorly developed fields are making it difficult to develop those reserves. The depletion of existing oilfields may lead to further declines in oil production unless these trends can be reversed.

5.6. Economic risks and barriers

Our respondents think that the economic situation has improved and stabilized a lot in Russia during the last decade. Such factors as inflation rate, Russian rouble exchange rate, bank refinance rate do not exceed 7-8% and are lower than the same rates in other countries with transitional economies. Russia paid back its external debt and that made the economic climate preferable for foreign investments.

Another factor that proves Russian financial attractiveness is the popularity of Russian energy companies on the financial market and inclusion Russia into BRIC[5] land (announced first by investment bank Goldman Sachs) that gives high return on investment from Russian energy companies: East Capital Ryssland portfolio fund and ABN AMRO Ryssland potfolio are supposed to be "risky" but give very high rate of return for a short period of time.

Risks mentioned above in our empirical part, the oil and gas price fluctuations can be discussed here as it seems to influence the petroleum fields' development (speed up, stop or postpone it). This risk is not diversifiable, but the political decisions (like creating Organization of Gas Exporting Countries, OGEC) and global events may influence the price of oil and gas. *In the last years all global political decisions and events turned in favour for rising of energy prices. And today many experts predict the growing oil and gas demand with high stable prices for the nearest future.*

Russian economic environment can be even more favourable for Norwegian companies if Russia joins the World Trade Organization. The last negotiations with USA and EU countries gave a hope that Russia would become a member in the year 2008. *This will substitute the Russian complicated trading laws and rules with the international rules and standards, and make the Russian economy more open for international organizations.*

5.7. Environmental risks and barriers

Environment is a very important topic in Russian-Norwegian petroleum cooperation and is much discussed on all levels in Norwegian society. First of all *Norwegians are afraid of pollution of water and air that can come from the Russian side* if new fields are going to be developed. Secondly, Norwegian companies and organizations are concerned that *Russia lacks environmental standards for offshore field development,* and that *Russia does not have consistency in its environmental control.*

[5] **BRIC** or **BRICs** are terms used to refer to the combination of **B**razil, **R**ussia, **I**ndia, and **C**hina. General consensus is that the term was first prominently used in a thesis of the Goldman Sachs investment bank. The main point of this 2003 paper was to argue that the economies of the BRICs are rapidly developing and by the year 2050 will eclipse most of the current richest countries of the world. (Skandiabanken, 2007)

Mentioned risks and barriers are the result of different attitude to environmental questions in countries of our research. This first of all comes from the differences in environmental legislation and governmental structure.

The structure of Russian environmental legislation is much more complicated and not so easy to understand for Norwegians. Many our respondents argued that when it comes to practice some issues are not that certain. In some cases the general requirements are not supported by detailed instructions and figures. All these features of Russian environmental legislation make environment protection difficult.

There are many reasons for that and some of them are: larger scale of industry and patterns of ownerships where private forms prevail. Actually, the Russian state formally can control the industry in the same way like in Norway through different expertises and requirements. But in fact, since a lot of legislative acts are missing the system does not function properly. So, private companies are free to do what ever they like if there are no precise and approved requirements or if these requirements are contradictory and do not have uniform interpretation.

The common feature of Russian and Norwegian systems is that decisions are centralized. Real power in environmental issues related to petroleum industry is concentrated on the federal level of Russian Federation. Local authorities do not play any considerable role. But at the same time in Norway the local communities play important role in decision-making processes. Moreover, local communities in Norway have the right to get direct financial compensation for those activities that can be harmful for their business. It is difficult to find something like that in Russian legislation. Petroleum companies do not have any direct responsibility and they do not have to compensate anything to local businesses or society.

We would like to stress here that Norwegian companies follow environmental issues showing the high level of organizational responsibility and future environmental performance. Obviously, businesses in Russia do not so closely stuck to ecological standards as it is in Norway, where the majority of oil-and-gas companies postulate ecological economic principles as core values within organizational priorities. It could be explained by several reasons. First of all, Russia has a lack of environmental governmental regulation. Thus, any ecological law should provide two important functions: on the one hand, to prohibit what is

harmful for the environment and, on the other hand, to encourage what is friendly for natural resources upkeep. *In our opinion, environmental legislation in Russia fulfils rather one-side function – "to prohibit".*

The findings that arose during our research showed that environmental considerations are not the first priority for Russian petroleum industry. This can be illustrated by Russian pipeline project near Baykal Lake[6]. Only direct decision of Russian president Vladimir Putin prevented building the pipeline in hundreds metres from the lake. This option was promoted by business since it would allow them to make smaller investments. The fact of seismic instability and public opinion was ignored. Only the president's decision made them accept more expensive but more environmentally friendly project of the pipeline route. This case proves that *the system in Russia is still far from being perfect.*

To our mind to reduce the impact of risks and barriers related to the lack of environmental offshore standards, the main activities that should be done in Russian-Norwegian oil-and-gas cooperation is to *work out common ecological frame of standards*. *These standards can be based on existing environmental rules and by implementing Norwegian or foreign experience.*

Another solution we suggest here *is to implement the environmental audit at the petroleum fields with to-sided interests (like Norwegian and Russian), which should be carried out by the third country*. International approach to environmental issues stimulates the development of environmental-friendly industry through the development of new technologies.

5.8. Summary

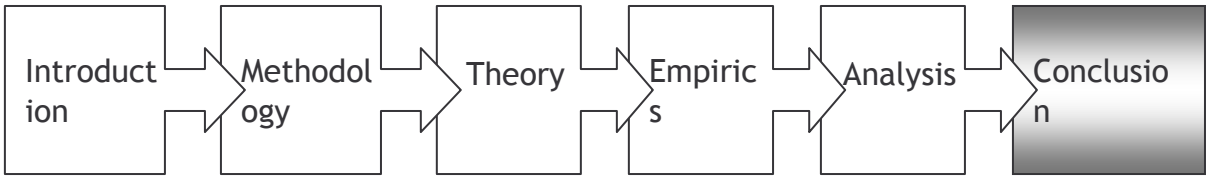
To sum up all written in this section, it is necessary to say, that risks and barriers perception by Norwegian companies are rather subjective and can differ from company to company and from branch to branch. The main factor which determines whether companies fail or success on the Russian market is how good they make their "homework" before coming to Russia. Surely Russia, as any other transitional economy, has higher risks and barriers than any other developed country. But Russian market also offers higher opportunities encouraging many Norwegian companies to work on it. The last years Russia has made big steps towards

[6] Baykal - is the deepest lake in the world with very unique and vulnerable ecosystem

integration with the world economy, and joining to World Trade Organization will even more open the Russian economy for foreign investments and cooperation.

6. Conclusion

This chapter covers several topics: linking the major findings with the research questions raised in our master thesis, discussion of main implications and offering topics for further research.



6.1. Answering research questions

After reviewing all the relevant literature as well as discussing and analyzing the empirical data, we can finally present the answers to our research questions.

Research Question 1: *How risks and barriers are defined? How they can be classified using a theory framework? How a theory of Cultural Dimensions can be applied?*

Regarding the first research question, the theoretical part of this thesis dealt with the topic of risks and barriers in academic literature. In this part we defined the terms of 'risk' and 'barrier' based on the previous studies and findings. The theoretical approach that we chose presents the framework that shows the relevant classification for risks and barriers. We decided to classify potential risks and barriers into six groups: socio-cultural, political, legal, economic, technical and environmental. Further, this classification helped us identify and describe risks/barriers mentioned by our interviewees. Moreover, we applied Hofstede's theory of Cultural Dimensions which assisted us in revealing differences and similarities between Norwegian and Russian business cultures. The goal of applying Hofstede's theory was to contribute to a better and deeper understanding of cultural issues in Russia and Norway.

Research Question 2: *Which risks and barriers are the most essential based on experts' opinion?*

As to the second research question, the most important risks and barriers of the Russian oil-and-gas market, as it was evident in the empirical part, are socio-cultural and political. These types of risks and barriers were meant by all the respondents of our research. In addition, other types of risks and barriers still remain to be obstacles. In fact, economic, technical, environmental and legislative risks/barriers are much easier to tackle, and they can be reduced by implementing certain strategies.

Research Question 3: *Whether and how can these risks and barriers be reduced? If not, how can Norwegian companies cope with them?*

Finally, we believe that it is always interesting to view the situation from the different angles while carrying out the research. Thus, we aimed to look whether small foreign companies and big ones consider the situation on the Russian oil-and-gas market in a more or less familiar way. We found out that that there are striking differences between small and large companies' perceptions of the risks and barriers in Russia. We would like to point out that risks and barriers on the Russian oil-and-gas market are easier to be overcome by large companies as they are able to contact big governmentally run monopolies directly, whereas small companies claim to have more problems with activities in Russia.

We should stress on that economic and political risks and barriers, reported in the present research, can be rather diversified than reduced at all. Norwegian companies have few possible ways in order to adapt to current political and economic situation. It seems to us that Norwegian companies have to recognize that they will have to accommodate to GAZPROM, Rosneft and other Russian companies if they wish to carry on doing business on the Russian oil-and-gas market. An alternative way to reduce barriers is to purchase shares in Russian oil-and-gas companies which also allow them to get access to the upstream sector.

Talking about socio – cultural risks and barriers, we should underline that there is a big difference between Russian and Norwegian business culture. And we assume that it is very important and necessary to understand and adapt to national culture, develop shared values and establish personal relationships between Norwegians and Russians. The serious problem of obtaining reliable information about the current situation in Russia Norwegian companies

may escape at all by relying on information and statistics published by governmental authorities, but on the information published in newspapers; as only this kind of information reflects the real situation on the oil-and-gas market and can be directly interpreted in accordance with desirable targets.

Our research demonstrated that there is still a great lack of cooperation in the field of environment. There are huge possibilities for a closer cooperation on monitoring environmental pollution in the Barents Sea. On the one hand, Norway wants Russia to improve the environmental control routines, but on the other hand, insufficient financing of environmental programs from Russian side slowdown future environmental activities.

The last year decision concerning the merger of Norwegian petroleum companies - Statoil and Hydro - seems to be an attempt to create a global company with higher competitive advantages and to strengthen Norwegian oil and gas industry. This merger between the former rivals is believed to create a more forceful and competitive company outside Norway. Moreover, in Russia one big Norwegian player will have better chances than two medium-sized competing companies. They can combine their contacts and address risks and barriers on the Russian oil-and-gas market more effectively.

The size and growing potential of the Russian oil-and-gas market is a very powerful stimulus for Norwegian companies' activities in Russia. As it was emphasized by all the respondents, fundamental Russian oil-and-gas market opportunities outweigh the possible risks and barriers related to work on it.

To conclude, any actions in cooperation between two countries should be carefully planned before the implementation. This should include various political, legislative, social, economic and technical aspects, just to name a few. But the most interesting question is how they all meet and get connected in the framework of two countries' cooperation.

6.2. Main implications

The research may be helpful for Norwegian companies that are working or are interested in working in Russia or with Russian oil-and-gas companies. We tried not only to define and describe the main risks and barriers that foreign companies face in Russia, but also to give a description from historical and "Russian" point of view. We believe that some international

organizations and journalists interested in Russian-Norwegian cooperation can find our report interesting in some aspects as we used the most recent opinions on current economical and political situation from the Russian and Norwegian experts.

6.3. Personal Experience

In the process of the research we have received a lot of useful experiences. First of all, the teamwork helped us to combine the knowledge and skills of both of us. We wrote this research in a close mutual cooperation by constantly correcting, supplementing and improving each other's ideas. Also, very useful was the experience of actually undertaking the research, that is, the ability to implement theoretical and methodological issues in practice. By careful studying and reviewing the big amount of secondary information we broadened our knowledge in the field of oil-and-gas and energy diplomacy. Finally, we had the opportunity of communicating with very interesting people both in Russia and Norway. Among them there were academics, businessmen, representatives of national and regional mass media. All these people are known with risk/barrier issues of Russian – Norwegian cooperation in real life, and this makes their knowledge and expertise valuable.

6.4. Proposals for further research

This field of research is very complex and vast. To fulfill the analysis in the International Energy Management one should understand the politics, culture, legislature of two different countries (Russia and Norway) in addition to the petroleum technology (offshore, upstream and downstream) and transportation systems. In each of these topics the separate and deeper research can be done. We can propose the following topics for further research projects (master thesis):

- Russian oil-and-gas sector: from the Soviet times until the present
- Russian electricity sector: RAO ES and its transformation
- Energy and environmental legislature in Norway and Russia
- Russian and Norwegian petroleum export and relations with consuming countries
- Geopolitics of oil and gas: perspectives for Norway and Russia
- Russian - Norwegian cooperation: successful and unsuccessful

With other possibilities for a comparison still available, this may spark discussion and result in new angles and "lenses" through which we can enrich our understanding of the Russian oil-and-gas market.

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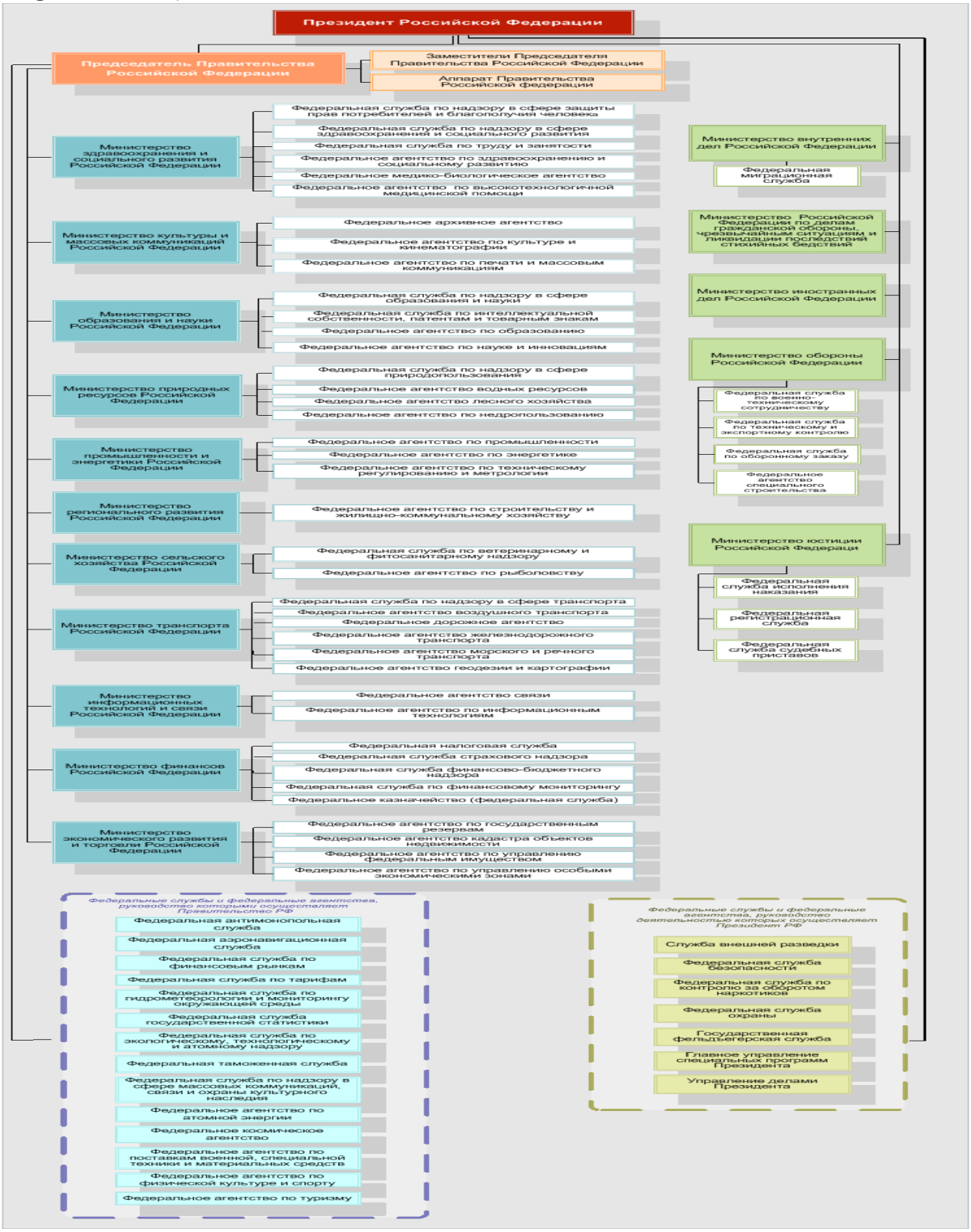
Appendices

Appendix A

Federal Agencies of Executive Branch in the Russian Federation *(source: www.government.ru)*



Appendix B

List of major companies with GAZPROM shareholding (as at July 1, 2006)
(source: GAZPROM, 2007)

100% ownership	Ownership above 50%	Ownership 50% and less
1. Astrakhangazprom	1. Brestgazoapparat	1. AVTOGAZ
2. Bashtransgaz	2. Centrenergogaz	2. ArmRosgazprom
3. Burgaz	3. Dialoggazservis	3. Azot Agrichemicals
4. Ecological and Analytical	4. Ditangaz	Corporation
Center for the Gas Industry	5. Druzhba	4. Belgazprombank
5. Gazprom export	6. Electrogaz	5. BSPS B.V. (Blue Stream
6. Gazflot	7. ForaGazprom	Special-Purpose Company)
7. Gazkomplektimpex	8. Future Fatherland Fund	6. Caspian Oil Company
8. Gaznadzor	9. Gazenergoservis	7. Eesti Gaas
9. Gazobezopasnost	10. Gazcom	8. EuRoPol Gaz
10. Gazoenergeticheskaya	11. Gazmash	9. Gas-Oil
Kompaniya	12. Gazprombank	10. Gasum
11. Gazpromavia	13. Gazpromgeofizika	11. Gaz-Agro-Friport
12. Gazpromenergo	14. Gazprom neft	12. Gazavtomatika
13. Gazprom Finance B.V.	15. GazpromPurInvest	13. Gazpromtrans
14. Gazprom UK Ltd.	16. Gazpromtrubinvest	14. Gaztransit
15. Gazprominvestarena	17. Gaztelekom	15. Gaz-Truby
16. Gazprominvestholding	18. Gaztorgpromstroy	16. Horizon Investment
17. Gazpromokhrana	19. Gazstroydetal	Company
18. Gazpromrazvitiye	20. Giprogaztsentr	17. Imperial Bank
19. Gazpromstroyengineering	21. Giprospetsgaz	18. Interconnector (UK)
20. Gazsvyaz	22. Krasnodargazstroy	Limited
21. Informgaz	23. Krasnoyarskgazprom	19. International Gas
22. Informgazinvest	24. Kaunas CHP	Transportation Consortium
23. Irkutskgazprom	25. Lazurnaya	20. Interprivatizatsiya

24. IRTs Gazprom	26. Lengazspetsstroy (LGSS)	International Fund
25. Kaspiygazprom	27. NEGP Company (NEGP operator)	21. Intest Insurance Company
26. Kavkaztransgaz	28. Orgenergogaz	22. IVECO-URALAZ
27. Kubangazprom	29. PeterGaz B.V.	23. KazRosGaz
28. Lentransgaz	30. Promgaz	24. Khimsorbent
29. Mostransgaz	31. SevKavNIPIgaz	25. Khoroshevskaya Energeticheskaya Kompaniya
30. Mezhregiongaz	32. Sibur	26. Latvijas gaze
31. Nadymgazprom	33. Spetsgazavtotrans	27. Lietuvos dujos
32. Nadymstroygazdobycha	34. Spetsgazremstroy	28. Moldovagaz
33. NIIgazekonomika	35. Stimul	29. Moskovsky Vekselnyi Bank
34. Nord Transgas	36. Tsentrgaz	30. Mospromagrotorgdom (Promagrokontract)
35. Novy Urengoy Gas Chemicals Company	37. TsKBN	31. Motor Technologies
36. Noyabrskgazdobycha	38. Urengoystroygaz	32. Noyabrsky Gorodskoy Bank
37. Orenburggazprom	39. VNIPIgazdobycha	33. Olimpiysky Commercial Bank
38. Permtransgaz	40. Volgogaz	34. ORFIN (Orenburg Finance Company)
39. Podzemgazprom	41. Volgogradneftemash	35. Overgas Inc.
40. Podzemgidromineral Science & Production Center	42. Vostokgazprom	36. Permskiye Motory
41. Samaratransgaz	43. Zapsibgazprom	37. Prometey-Sochi
42. Servisgazprom	44. Zarubezhneftegaz	38. Promstroybank
43. Severgazprom		39. Regionreestr
44. Severneftegazprom		40. Rosneftegazstroy
45. Sevmorneftegaz		41. Rosshelf
46. Surgutgazprom		42. Rus-Gaz Trade House
47. Surgutstroygaz Construction Company		43. Russian Gas Universal Exchange
48. Szhizhenny gaz (Liquefied gas)		
49. Tattransgaz		
50. Temryukmortrans		

51. Topenergy 52. Tomsktransgaz 53. TyumenNIIgiprogaz 54. Tyumentransgaz 55. Uraltransgaz 56. Urengoygazprom 57. Volgogradtransgaz 58. Volgotransgaz 59. VNIIGAZ 60. Yamalgazinvest 61. Yamburggazdobycha 62. Yugtransgaz		44. Sibur Holding 45. Slovrusgas 46. SOGAZ 47. SR-DRAGA 48. Stella Vitae 49. Stroytransgaz 50. TsentrCaspneftegaz 51. Turusgaz 52. Ural Bank for Reconstruction and Development 53. Vega Investment Company 54. VIP-Premier 55. Vologdapromresurs 56. Volta S. p. a. 57. YugoRosGaz 58. YuzhNIIgiprogaz 59. Zavod TBD

Appendix C

Oil and Gas in the Barents Region *(source: Ramboll Storvik, 2007)*