Scenarios of the Oil Industry of Croatia and the Region: Qualitative Approach

Radoslav Barišić

Ministry of Regional Development and European Union Funds, Croatia radoslav.barisic@gmail.com

The oil industry is historically burdened by different turbulences and tremors having the significant impact on the market. In order to anticipate unforeseen and potentially harmful situations, some firms as a part of their long-term strategic plans pay attention to scenario-based planning, which is a useful technique for preparation of appropriate strategy and responses to potential unforeseen emergencies. Scenario planning is used for a detailed analysis of the current situation in the market and potential future development, creating a research framework for creating development scenarios. Scenario planning is especially highlighted in the context of oil industry considering the technique actually originated in this business (it was also used in previous military doctrine), where, because of using a scenario-based planning, some oil companies profited and gained a privileged position. The aim of the paper is to provide an insight into the importance and various approaches in using scenario planning today and explain the potential long-term scenarios in the oil industry of Croatia and the region, obtained by means of qualitative research and in-depth interviews with a number of experts in the field of oil industry.

Key Words: competitive advantage, oil industry, scenario planning *JEL Classification:* L1

Introduction

In order to ensure a competitive advantage in turbulent and uncertain business conditions, Croatia and regional oil companies are forced to find new strategic tools and techniques. One of them is the Scenario Planning confirmed by Mintzberg's thesis as highly valuable as it shows how Scenario Planning at times when the traditional approach to strategic planning is already obsolete can be used (Mintzberg 1994).

Development of oil industry is presented based on the application of scenario analysis in the area of Croatian and regional oil industry development. This technique is used to present several potential directions of development in the industry, each with its own conditions and features (Wack 1985). Special attention in the context of the entire analysis was given to INA Oil Industry, Plc. in respect to its role in the Croatian market and the region. Recommendations for further development of INA were given considering the results of the scenario analysis of oil companies, including its strategic positioning and adapting to the global competition.

Empirical research was based on materials obtained in interviews with experts in oil industry and oil economy. During the interviews, respondents stated their opinions on the outstanding issues related to scenariobased approach to oil industry. Their statements were synthesized and resulted in certain opinions and conclusions common for all experts during their interviews. We stress out that main subject of the research is analysis of scenario planning and thinking in terms of how to create productive business models and adjust the oil company's business strategy accordingly.

Approaches and Steps in the Development of Scenarios

SCHOOLS AND ORGANIZATIONS IN SCENARIO PLANNING

There are few scenario-based approaches to planning, mainly stemming from various organizations and schools that have gradually developed the technique of scenario analysis and enriched their approaches assisted by the different methods of computer support in evolution of the technical capabilities. Ringland (1998) highlights the following as the most influential approaches:

- Battelle's BASICS
- Comprehensive Situation Mapping (сsм)
- Computer Driven Simulations STRAT*X
- Copenhagen Institute for Future Studies
- The European Commission's Methodology
- French School
- The Futures Group
- Global Business Network (дви)
- NCRI
- SRI

Every of them are discussed in more detail below.

Battelle's BASICS. During the 1980s with the help of IT support many organizations developed their own methods of scenario planning. Consultancy seated in the United States began in 1980 development of methodology called BASICS (Battelle Scenario Inputs to Corporate Strategy). This

methodology was an enhanced derivative of the CIA techniques previously developed by RAND Corporation and the University of Southern California. Important new element in this approach was the expert judgment so the process involved the computer program with good customer support.

Comprehensive Situation Mapping (CSM). Within the scenario planning, the CSM method helps to develop a deeper insight into the systematic structure and its dynamic implications. CSM basic feature is the possibility to improve mental models of managers in strategic decision-making situations. Since the features of this method are related to computer simulations, the vital role of this tool is bridging the gap between qualitative descriptions and quantitative modelling. CSM as a tool helps to design the strategy from its initial phase of developing a situation model to the finalization of a strategic analysis. It includes the principles of Systems Dynamics and Systems Thinking, which comprises the overall situation.

*Computer Driven Simulations – STRAT*X.* The use of powerful simulation models is presented through following approach used by several companies that consider the question 'what if' in possible future directions, basing it on solid facts. This model was developed in Windows platform of business-simulation designed to bridge the gap between the theory and the practice in different industries. Original version MARK-STRAT was developed in 1977 while the version MARKSTRAT 3 was designed for the work of 6–30 managers divided into groups of 4–6 people. Each team was responsible for simulated management of a company in direct competition with other teams. This method allowed employees free environment to develop their creativity and vision. Participants performed different types of analysis in the process of decision making: market analysis, competition, business environment, financial analysis, etc.

Copenhagen Institute for Future Studies. This institute was established in 1970 as a non-profit organization by the former Danish Minister of Finance and OECD Secretary General Thorkil Christensen in cooperation with a several visionary companies and organizations keen to modernize their decisions by exploring the future. This scenario making approach focuses on the social factors that affect the other elements. Although the scenario planning in time significantly evaluated, this particular technique is still used as it takes the whole society as a valid basis for developing a scenario.

The European Commission's Methodology. Since it is often pointed out that the future has not been written yet and in principle cannot be predicted, the processes of reflection on the future and effects of the exploration of alternative future can have a striking effect on directing a company's future. But the assumption that the future can still be interfered rests at the core of the research performed by research departments of future events in the framework of the European Commission. The European Commission uses the method of 'design of factors – design of doers', involving a small group of selected experts and does not include questionnaires. The method represents less formal and adaptable approach to professional counselling. Pragmatism and adaptability of this method improves the application of knowledge of the partners inside and outside of the European Commission.

French School. During mid 70s' French strategy specialist, Michel Godet, started developing scenarios (Godet 1987). Its functions have changed over time, based on what was the importance of the orientation towards the future and accordingly continued to develop its methodology for developing scenarios. This approach is in line with Battelle BASICS methodology used forecasting methods in the assessment of interaction effects. Godet's approach developed gradually over the years and is comprised of a set of software tools, especially MICMAC (Matrix d'impacts Croises Multiplication and un Classement).

The Futures Group. Futures Group is a consulting firm specialized in the area of strategic planning which developed a scenario-based approach to planning, based on an analysis of the impact of trends (Cross Impact Analysis). A typical project consists of three phases: preparation, development of scenarios and reporting and use. The preparatory phase is primarily focused on defining the focus searching for answers to several questions revealing the limits of scenario application. Apart from these questions, key drivers of the system and the environment that should be recorded are determined. In the development phase, comprehensive sets of future world scenarios are constructed. Then the sets are reduced to a smaller, concise number of major events. Development phase is than finalized by projecting the time trend for each of the variables highlighted by those in charge of the scenario. The final phase consists of reporting on the findings by various documents, as different graphic layouts and presentations describing the assumed future. For the scenario findings to be used and benefited at the highest managerial level, effective communi-

cation on assumptions and outcomes of the scenario findings is of crucial importance.

Global Business Network (GBN). Peter Schwartz along with Jay Ogilvy formed the organization after leaving Shell (Ogilvy and Schwartz 2004). The basic idea was to provide the customers with high quality information and to contribute to the development of their perceptive on alternative futures added by the scenario analysis method. The idea of conducting business with this method evolved even further and the network of consultants evolved working on individual projects, exchanging ideas, opinions, observations, etc. Therefore the GBN has become king of a club, a community, working with clients and using an unconventional approach, atypical of other consulting companies.

NCRI. This approach was developed by Northeast Consulting Resources Inc., on whose initials the name was made up. It is based on the screenplay technique called 'Future Mapping'. Its methodology uses two sets of tools, 'Endstates' or alternative visions of the future and 'Events' or specific events. The first observes the industry specimens to a certain future time extend, usually four or five of them. They are able to describe incomplete or polarized points of view requiring mutual integration. Several alternative visions does not necessarily have to be mutually exclusive, therefore one vision can mutually exist with completely different vision of business model. Events such as different set of tools are specific, concrete and visible manifestations of the most important future trends and questions. Finally this method comes down to a collection of conclusive events and alternative visions focused at the development of marketing strategies.

SRI. SRI International and the Royal Dutch/Shell initially developed an approach of intuitive logic. Scenarios must present a framework for structuring the perceptions of management on alternative future environments in which decisions will be made. The main material of the scenario is not the idea of consultants and futurists, but the management perception regarding critical trends. The range of decision-making affected by these scenarios is very broad, from urgent decisions up to the long-term considerations such as strategic decisions on diversification of a company. In the late 70S SRI International revised its methodology scenarios to meet the corporations' needs for strategic analysis of future trends and the degree of uncertainty that direct implications have on strategic plans, investments and other decisions that are made in the present. Their

methodology, known as the SRIC is considered a role model of intuitivelogical access scenario-based planning, primarily because of its simplicity and practical application. SRIC method includes 6 steps through strings of analyses and workshops. In certain segments it is similar to the GBN's technique of scenario analysis implementation.

STEPS IN DEVELOPING OF THE SCENARIO

As we already presented, there are many approaches and recommended models in implementation of scenario planning, but most of them have similar premises and process logic in scenario developing. According to Schwartz (1991), the process of scenario making is divided into 8 steps, each separately including one unit:

- 1. Identifying focal issues and decisions
- 2. Defining the key factors in the local environment
- 3. Definition of the main driving forces
- 4. Ranking of the driving forces in order of importance and the degree of uncertainty
- 5. Selection scenarios logic
- 6. Scenarios' content enrichment
- 7. Explanation of the implications
- 8. Selection of leading indicators and guidelines

The First Step – Identifying Focal Issues and Decisions. When developing scenarios the key issues and areas of interest to be dealt with in the process of developing scenarios should be the starting point: which important matters will be considered by the decision makers and the management in the future? What are the decisions to be made in order to have long-term impact on the state of the company? Scenarios that are developed on the basis of macro-economic context may not be able to point out the he differences that have an impact on the object of analysis. Special attention in all scenarios is given to an environment that dictates the type of data which are the basis for the creation of the foundation the development of scenarios. Key decisions that have potentially important effects on the entire business must be singled out.

The Second Step – Identifying the Key Factors in the Local Environment. If the identification of focal points or observed questions is the first step, then listing the main factors that influence the success or failure of these

decisions is the second step. Facts about customers, suppliers, competitors and etc. are investigated. The questions are raised: What would managers like to know when making key decisions? What will be regarded as a success and what as a failure? What kind of circumstances will shape the final outcome?

Third Step - Main Driving Forces. After mentioning all the main factors, the third step involves defining the driving forces in the macroenvironment influencing key factors identified earlier. In addition to the list of social, economic, political, environmental and technological forces, it is important in this phase to answer the question which kind of drivers are standing behind those factors of the micro-environment defined in the second step? Some of them are predefined (e.g. demographics) and some distinctly unsafe (as public opinion). It is extremely useful to know what is inevitable and important, and what is unpredictable and yet essential. Let us imagine ourselves asking these questions in the future: 'What would we do if we knew about the changes in the tax system, interest rates, inflation level and so on'. In that way we could open certain perspectives and visions. This is the most intensive research step in the process, where we need to carry out a research in order to adequately define the driving force in the company. The market, new technologies, political factors, economic conditions, etc. are being examined. The research is conducted in the direction of reviling and defining current trends or the weakening and the disappearance of the same.

The Fourth Step – The Ranking of the Driving Forces in Order of Importance and the Degree of Uncertainties. The fourth step monitors the ranking of the driving trends based on two criteria: the first indicating the degree of importance of focal points or issues identified in the first step and the second, indicating the degree uncertainties characterized by these factors and trends. Analysis is made where the most characteristics are highlighted in order of importance and the degree of uncertainties whereby the goal is to identify two or three most important factors and trends standing out according to the highest level of importance or uncertainties.

The Fifth Step – Select the Scenario Logic. Scenario logic is defined as a research interaction between the most important and the least certain drivers constructing the research framework. The aim is to identify several scenarios whose discrepancies and special features are determined by the experts in charge of decisions making in the previous course of

the scenario. It is crucial to point out that the driving forces in the scenarios have to be a small number, thus avoiding excessive multiplication of scenarios, such as i.e. placing all possible uncertainties in the interrelationship and analysing it. Many events are possible, but only a few scenarios can be worked out in detail, thus avoiding the reduction of the effect of the process.

The Sixth Step – Enrichment of Content of the Scenarios. Main task of this step is the upgrade of the basic form of the scenario including the key factors and driving forces developed in the second and the third step. Scenarios are perfected by adding adequate roles to each key factor and each driving force. Each of the scenarios is developed by the exploring the reactions of parameters defined by the effect of the key driving forces on the assumed focal issues. The goal is to gather all the explored segments into one narrative whole.

The Seventh Step – Implications. After detailed development of scenarios, it would be wise to return to the focal issues and decisions defined in the first step. What can happen and have consequences on our points of interest, if certain factors emerge projected in each scenario?

The Eighth Step – Select the Leading Indicators and Signposts. Indicators should be identified which are used for the basis of current trends and in turn suggest scenarios that are fallacious but are potentially closest to the real situation. It is important to urgently recognize which of the made scenario is closest to the actual situation and the future. Thereby a company acquires a competitive advantage in relation to the other market participants, as it anticipates future events that could happen in the observed industry can accordingly adjust their strategies in the best possible way.

The entire scenario development process and taking of steps takes place in the manner of identifying key decisions and problems expected in the core of the analysis, its influence on strategic decision making and deciding on the planning horizon by scenario development (Shoemaker 1995). It is followed by identifying the main factors affecting the future. They are external and usually cannot be influenced upon. Factors most commonly studied are the size and the growth rate of a specific market, long-term economic conditions, price trends, availability and the cost of capital, etc. (Van der Heijden 1996).

The third step analyzes the important environmental conditions shaping the future of a company's business. Analysis is performed in two seg-



FIGURE 1 Matrix of the Scenario Impact/Uncertainties (adapted from Ringland and Young 2006)

ments, by analysing the macro-environment (to which the company has to adjust) and analysing the industrial environment (to which the company can have influence by adjustment). It is important to recognize the importance of particular drivers and its possible impact to the structure of future environment. Impact/uncertainty matrix can be helpful to the system with its simple principle of evaluation: high, medium and low. If a certain drive has a high level of impact and high level of uncertainty than it is a scenario key driver.

Potential Development Scenarios for oil Industry in Croatia and in the Region

Scenarios are created by qualitative research (in-depth interviews) with a number of eminent experts from the Croatian oil industry and with experts across the region. Steps in conducting the research have been implemented by respecting the guidelines and recommendations of the SRI approach. Experts went through structured interviews, answering a series of questions that ultimately formed the entire composition required for the construction of scenarios by using this approach.

At the beginning the subject of research was determined which served as a basis to all other process components. Immediately after defining the subject, analysis of the factors having an impact on the final result of the determined research objectives followed. Than all factors and drivers were ranked according to its characteristics and selected as those having the most influence to the research subject and at the same time least secure of forecasting. Than the drivers were attributed with the opposite

characteristics along two intersecting axes constructed from four different scenarios.

The final phase represents the determination of the implications arising from the scenarios and indicators pointing to future development in a in a precise determined direction.

QUALITATIVE RESEARCH METHODOLOGY THROUGH IN-DEPTH INTERVIEWS WITH EXPERTS

Methodology of open type interview was used in the research performed through thematic units. During the interviews through semi-structured interviews, i.e. a series of open questions the respondents were asked about their views on elements defining the research area, searching to verify that the respondents were in the wake of the joint conclusions at hand. Data obtained through interviews through open issues in the context of qualitative research assisted the researcher to sublimates perception, experience and knowledge of participants through in-depth interviews. Result of this approach is a comprehensive picture broadly interpreting the examinees' vision, without limiting factors that may diminish the creativity and foresight during the research process (Patton 2002).

After determining the research problems, we decided to use the interview method as the best suited method for collecting the data needed for finding answers to the research questions. Although conducting interviews is usually considered as the 'best' technique for collecting data, there is a risk of underestimating the complexity of implementation and research methods. In-depth interviews can be defined as a process in which knowledge of the social world is constructed through interaction. The process of interviewing is not just a neutral exchange of questions and answers. The key of successful implementation of the interview is active nature of the process that results in a contextually rich content.

Deliberate sample of respondents was selected (10 top oil industry experts, all of high-ranking employees of companies and institutions engaged in the oil and energy sector) according to the expertise and knowledge of the strategic planning and prospects of development in the oil business. Respondents selected in this method had the ability of making good illustrations of the focal problem and they were well informed about the topic during the interviews. The principle of defining the patterns in qualitative researches as typically 'meaningful' or 'theoretical' was followed, as opposed to random sampling or some other approach which aims to ensure statistical representatively. All interviews were conducted

over a period of approximately two months and every single interview lasted from 30-60 minutes.

Respondents were approached by telephone or by direct contact, depending on their availability, and free time. Interviews were conducted partly at the respondents' workplaces, within their conference rooms and sometimes in the places completely unrelated to their job. All participants at the beginning of the interview were informed with the principle of discretion and the confidentiality of their identity in writing of the papers. Also the consent for using the dictaphone during the conversation was requested. Since all respondents reacted positively to the dictaphone during the interview, all conversations were recorded and stored as audio track, keeping the comprehensiveness of obtained thoughts and information. The length of each interview depended on the availability of the respondents.

During the interviews, respondents were asked various questions on oil business and strategy. Responses intended to explain the problems set in the centre of the research. With regard to the methodology used in the work, questions were not asked by strictly defined order, but with the idea to ultimately they handle all topics.

The research was aimed at discovering potential directions of oil industry development in Croatia and the region within the period of the next 20 years. Based on the responses of interviewed oil experts, potential scenarios should shape the future picture of the oil industry and determine how important is to anticipate events and adapt strategies accordingly in business.

Background knowledge about the geopolitical and other situations that shape the future course of events on the oil market can be obtained by the direct approach. In this research, respondents are given the role of descriptors of all essential elements for creating and distinctions within a few scenarios. Quantitative research could not give the right results in understanding the essence of the process and in the generation of new knowledge (Patton 2002).

Subsequent analysis of qualitative data involves organizing and explaining the data, briefly finding the meaning in the data according to the respondent's definition of the situation, finding patterns, themes, categories and regularity.

After describing the characteristics of qualitative research, taking into account the tackled and the objectives to be achieved in the research, it can be concluded that the qualitative method of research was a good choice by which we reached the goal of research – construction of potential development directions in the oil industry in Croatia and the region.

QUALITATIVE RESEARCH RESULTS AND CONSTRUCTED SCENARIOS

After carrying out the interviews with all responders and making the transcripts, next step was to further analyse the data obtained in this research (Patton 2002). The analysis was carried out in the form of detecting codes profiled during the interviews, and proved a certain consistencies and causality in the visions of the experts in the context of all thematic sections. During the process of interviewing of the respondents the basic intention was to obtain the professional reflection on scenario-based planning as a strategic tool and examining the future of the oil industry under the different thematic sections that have a crucial role in forming of the oil future.

All the respondents respectively accented on the importance of application of scenario planning. Since all respondents were highly profiled managers who worked or had contact with the market leaders, their knowledge and a comprehensive understanding of scenario planning and its benefits is not surprising.

The fundamental question raised as an object of study in the development of scenarios is the oil industry development perspectives at global and regional level for the next 20 years. What are the potential directions of development of the market and subjects which have a role in the exploration, production, processing and distribution of oil and oil derivatives? An important assumption was the projecting of the development of the global situation because it has a decisive influence on events in smaller, dependent regions reliant on raw materials and geo-political developments on the overall market.

Driving forces observed in the process of making scenarios represent the trends in the macro environment and have a direct effect on the observed basic question from the previous step. Added by the PESTLE model it is possible to observe in detail the factors from several major focal areas of company's business: political, economic, socio-cultural, technological, legal (legislative) and environmental (Porter 1985). Besides historical features, due diligence and other facts, the driving forces were pointed out by the experts during the interview and were repeatedly emphasized.

As the most important drivers the following was stressed: development

| Driving force | Importance | Uncertainty |
|---|------------|-------------|
| Development of the alternative energy sources | 10 | 8 |
| Oil demand | 9 | 7 |
| Economic situation | 10 | 10 |
| Oil prices | 10 | 9 |
| Availability of oil | 10 | 10 |
| Political environment | 9 | 9 |
| Technological development | 9 | 8 |
| Demographic trends | 8 | 7 |
| Transport development | 9 | 7 |
| Environmental regulations | 10 | 8 |

TABLE 1 Ranking the Main Driving Forces by the Importance and Uncertainty

NOTES 1 – very small importance/uncertainty, 10 – very high importance/uncertainty.

of alternative energy sources, economic situation, demand for oil, oil prices, availability of the oil, political environment, technological development, demographic development, transport development of the market and environmental legislations. Each of these drivers was given a certain rating according to the importance of the impact on the area of research, while a level of uncertainty was considered as a second aspect i.e. a small possibility to forecast future outcomes related to these drivers.

From the comparative table 1 it is evident that the most important drivers with the highest degree of uncertainty are the economic situation and availability of oil. The economic situation is a key driver because it determines the future financial power of governments, businesses, shareholders, customers and other stakeholders to spend or invest in different directions that will shape the industry. They may be technical in nature, in the form of subsidies, acquisitions and consolidation, etc. The availability of oil on the other hand, has a significant impact on the supply and price and therefore, consequently, on the overall picture of the industry and market.

Once we defined and separated those factors that were rated as the most important ones, i.e. the most uncertain in the future business operations of the company, their presentation in made on the basis of two matrix axes of opposing characteristics that define the aforementioned drivers: sufficient or insufficient, that is, the development or stagnation.

From the displays of the matrix interrelation four potential develop-



FIGURE 2 Matrix of 4 Potential Scenarios

ment scenarios can be determined; each with its own characteristics and development direction, depending on the combination of key drivers it exists on. Special attention was paid to giving names easy to remember, but also descriptive representing the direction of development it was processing. Each of the potential scenarios is presented in more detail through processing of concepts that shape them and by entering into a deeper area of interest that defines them. Implications for each scenario are presented with indicators that give clues to early detection and identification of each potential direction.

Oil Buffet. Represents a scenario characterized by assumed high economic growth and high accessibility of oil. Regional economic growth moves in a positive direction resulting in the increase of economic activities, higher traffic frequency larger transfer of commodities and goods reflecting in an increase in oil demand as a basic energy source in all economy sectors. Determinants of this scenario have double impact on the technological development, since economic growth encourages rapid application of innovation and improvement in every technological sense. Ecology has an important role in the further development, predominantly in times of economic prosperity, when environmental standards increasingly tighten hindering company's business. Since the availability of fossil fuels remains large, alternative energy and energy efficiency are developing only to the extent ordered proscribed by state laws. Implications arising from this scenario are the progress of the overall economy, progress towards sophisticated technologies; a large number of new, modern petrol stations, increasing refining capacity, companies' revenue

growth caused the oil price hike. Indicators suggesting a potential development in this direction are high GDP growth, political stability and a sense of well-being. Strategies of oil companies in this scenario are focused on the use of appropriate situation and to make the best of it. Everyone will consolidate its position in the upstream and downstream, strongly focusing on the downstream business, where margins are the highest. All processing and distribution channels must be fully involved in order to meet the demand economy that is building a steam.

Plan B. In this scenario, economic growth is high, but the availability of oil is decreasing. The economic situation stimulates economic activity, which ultimately generates development of the market, transport, living standard and the general consumption. Thanks to the good economic situation and the available resources, larger funds are invested primarily in technological development, modernization of production plants, transport and refining. Oil supply is reduced, while demand is growing steadily resulting in a supply disruption on the market and the participants with continuously higher prices of oil on the market find themselves in the situation of a new oil shock. Thus, the alternative fuels have an important role as a substitute for oil. Most evident restructuring is going in the direction of gas as a more versatile energy source. Economic development has enabled governments to generously subsidize the production of fuels from renewable energy sources. Special attention is paid to energy efficiency which is reflected in decreasing of consumption which partially reduces oil dependence. Both electric and hybrid cars are becoming increasingly popular in traffic. Taking care of environmental protection and climate change imposes ecology as an important factor. Implications imposed are huge companies' investments in advanced technology and innovation. Indicators are constant economic development where GDP is rising, traffic is continuing to grow, as well as the level of population mobility. The construction of nuclear power plants supports the entire energy sector and has become more accepted in the public eye. Company strategies in this scenario-based direction are primarily aimed at restructuring towards alternative energy sources. It is important to timely modernize technological and move to promote the new generation of fuel so that the market leaders provide sufficient amounts of fuel to a deficit market.

Old Glory. Due to the stagnation in the economy and reduced volume of many economic activities, demand for motor fuels is also falling, while

the availability of oil is continuously high. Companies in the region have large unused availability of capacity due to the fall in consumption, with high fixed costs. Low prices are also contributing to the reduction of income and funds available for development. Technology becomes obsolete since the economic situation is not favourable to investment and modernization. Environmental management is completely deteriorated, standards are neglected, a new alternative energy sources are not even remotely innovated as proscribed by instructions and laws requirements. Energy efficiency is poorly developed which is degraded as secondary with regard to readily available raw materials and lack of funds for investment in the energy efficiency system. The energy obtained by exploiting renewable energy also has a very small percentage in the total consumption. Implications are the decline in the attractiveness of the oil business without a prospect of global recovery, consolidation and divestments of unused refining capacities and unprofitable parts of the retail network. Indicators are reflected in a large decline in demand, price deflation, a constant decline in GDP, the recession, causing decrease in the mobility of the population, reducing the value of the shares of oil companies and high illiquidity. Strategic moves demanded by the situation include optimizing operational performance with minimal employed capacity, narrowing of all activities with no market demand. Technology is maintained sufficient for operating without major investments and modernization.

Great Thirst. The economic stagnation and low availability of oil is determined by economic instability, geopolitical conflicts and deepening of the financial crisis. Due to low or negative economic growth, demand for oil and its derivatives have been reduced to the minimum amount. The availability of oil is decreasing, as the world's oil reserves have already been exhausted while the lack of resources prevents investment in technology development and improvement in the process of exploration and extraction of oil, and later, processing and distribution of oil. Oil prices steady decline after initial rise due to the scarcity of the raw material and the reduced sales volume, resulting in lower earnings for all market participants, and thus the value of the company. Alternative fuels are being developed, in direction of renewable energy sources such as wind, sun and water potential. Electricity occupies a significant role in the transport sector as available and already well-known energy source, without larger investment needs in exploration. The use of resources and the transfer of knowledge and experience provide potential existence in the context

of large global corporations that have the power to endure in the market and in the most unfavourable business conditions. Implications of this scenario are characterized by the poor economic situation in the market which causes the acquisitions of smaller, feebler companies by large predators. Indicators which lead to this scenario-based direction are reduced GDP and economic activity, transport sector in decline, especially in terms of mobility of the population and goods. Geopolitical disputes are being led regarding the oil exploitation, reflected in a decreasing availability and the rapid growth rate generating a decline in consumption, decline in stock prices of leading smaller companies in the region and their illiquidity.

Conclusion

The role and the application of scenario analysis is presented through a number of approaches and schools that served as the basis for the scenario of Croatian and regional oil industry development. It is important to understand the explained steps, and to be able to apply them in correct way to create were prepared scenarios which include all necessary attributes.

In this regard, the scenarios made for future development, aim to represent a framework for the future development of companies with the respective signals that alert to the obligation for adjusting the strategy in the coming turbulent period. Their development path was presented with the future strategic shifts within their basic activities, their investment and expansion in the market, adapting to new trends in the oil business, their competitive environment, and attempts to spread via the acquisition or establishment of strategic alliances. Also, geo-political conditions were processed on the regional market where these businesses actually operate.

Drafting of scenarios in this paper was carried out with the help of qualitative research and in-depth interviews with experts who gave their reflections on key issues affecting the development scenarios in the oil business. Different and also the uncertain factors that can potentially lead to dramatic changes in the global, regional and ultimately Croatian oil market were taken into account. With the help of their augmented and creative visions for the future oil business development, future development scenarios were made.

However, there are some limits of research in terms of focus on specific questions by the experts and also their dedication and impartiality in answering. The interpretation of collected qualitative data also represents a particular challenge and a potential limit as claims of experts have to be transposed in the codes and then in the conclusions, and if there is any mistakes in the process, then it is possible that the final interpretation is also partly incorrect. The recommendation is to try to cover a wider group of experts and subsequently find credibility in the answers to make sure that we properly interpret the claims of experts and that we brought the correct conclusions based on them.

As final conclusion, the use of scenario planning in the oil industry of Croatia and the region is a relatively new technique, and as such, is an innovation in strategic thinking and a challenge in the application and adaptation of the same strategies in local oil companies in order to prepare for the energy (but also geostrategic) battle of oil giants from the East and the West. By using scenario planning, local companies can improve their competitive strengths, therefore it is highly recommended to start thinking proactive on future development of oil industry our region.

References

- Godet, M. 1987. Scenarios and Strategic Management. London: Butterworth.
- Mintzberg, H. 1994. *The Rise and Fall of Strategic Planning*. New York: Free Press.
- Ogilvy, J., and P. Schwartz. 2004. 'Plotting Your Scenarios.' http://www .meadowlark.co/plotting_your_scenarios.pdf
- Patton, M. Q. 2002. *Qualitative Research and Evaluation Methods*. London: Sage.
- Porter, M. E. 1985. Competitive Advantage. New York: Free Press.
- Ringland, G. 1998. *Scenario Planning: Managing for the Future*. Chichester: Wiley.
- Ringland, G., and L. Young. 2006. *Scenarios in Marketing: From Vision to Decision*. Chichester: Wiley.
- Schwartz, P. 1991. Art of the Long View. New York: Doubleday Currency.
- Shoemaker, P. J. H. 1995. 'Scenario Planning: A Tool for Strategic Thinking.' Sloan Management Review 37 (2): 25–40.
- Van der Heijden, K. 1996. *Scenarios: The Art of Strategic Conversation.* Chichester: Wiley.
- Wack, P. 1985. 'Scenarios: Shooting the Rapids.' *Harvard business Review* 63 (6): 139–50.



This paper is published under the terms of the Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0) License (http://creativecommons.org/licenses/by-nc-nd/4.0/).