WYDZIAŁ ZARZĄDZANIA
Uniwersytet Łódzki

Doctoral Thesis Summary

Tomasz GASIŃSKI
Univeristy of Łodź
Faculty of Management

Supervisor: prof. dr hab. Jerzy Różański

Risk management in field development projects in Polish Oil & Gas companies

keywords: risk management, risk assessment, methodology, multi-criteria, multidimentional risk assessment criteria, field development projects, Oil & Gas.

The following doctoral dissertation presents the multidimentional risk assessment methodology to be implemented in field development projects in Polish Oil & Gas companies, as a result of scientific work based on literature review and own research. As part of his scientific research, the author made observation and carried out empirical research, which allowed partially understand potential for implementation of mlutidimentional risk assessment method in business decisions within field development projects.

The doctoral dissertation consist of three theoretical chapters, two research chapters, and a chapter presenting developed by author - proposed procedure of implementation of the multi-faceted risk assessment analysis supporting financial and non-financial comprehensive assessment of the risk within field development projects.

Theoretical chapters relate to: characteristics of tangible investments, methodological basis of investment decision-making and risk management in investment projects. Research chapters present results, analyzes and conclusions from secondary research on multidimentional

risk assessment methods within Oil & Gas enterprises worldwide and own empirical research based on focus study on a group of experts involved in decision-making on field development projects in Polish Oil & Gas companies. The chapter on proposed implementation of multidimentional risk assessment procedure, presents the general author's concept on extending the scope of project risk information beyond the current basic financial information (e.g. NPV, IRR) and basic risk information based on simple risk assessment methods (e.g. risk map or simple sensitivity analysis).

The main objective of the dissertation is to determine the usefulness and applicability of multidimensional risk assessment methodology in investment decisions made by Polish Oil & Gas companies in field development projects. In planning the study, the following sub-objectives were also formulated:

1) Identification of world scientific achievements concerning modern methods of risk assessment in investment decisions of enterprises.

2) To present tools for risk assessment of oil & gas development investment projects in Poland and worldwide.

3) to assess the usefulness of information resulting from the use of multidimensional risk assessment methodology in investment decisions made in the field development.

4) To determine the applicability of tools enabling multidimensional risk assessment in investment decisions made by Polish Oil & Gas companies.

5) Evaluation of conditions and limitations associated with the use of multidimensional risk assessment in the investment decisions of Polish Oil&Gas companies.

Based on the empirical research, it was concluded that it is necessary to apply an improved approach to appraisal of investment projects of field development, based on the use of multidimensional risk assessment methodology, defining the project in the context of not only the "isolated" economic value, but relating it, inter alia, to other multi-faceted decision criteria e.g. the actual portfolio of projects, the current economic situation and the degree of achievement of strategic objectives (at a given moment of implementation of the strategy and the specific market environment). These methods should also be able to translate the conclusions of the project risk assessment and present the expected value (NPV, IRR) as a range of possible outcomes taking into account the level of risk.

The final result of the doctoral dissertation was the author's proposed procedure on implementation of enhanced risk assessment methodology consisting of chosen advanced risk assessment methods, that would complement the actual risk information and would improve the decision making in field development projects in Polish Oil & Gas companies.