

## Evaluation and Selection of Drilling Technologies: An Application of Portfolio Analysis Matrix in South Azadgan Oilfield

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**Abstract :** With respect to the role and increasing importance of technology for countries development, in recent decades technology development has paid attention in a systematic form. Nowadays the markets face with highly complicated and competitive conditions in foreign markets, therefore, evaluation and selection of technology effectiveness and also formulating technology strategy have changed into a vital subject for some organizations. The study introduces the standards of empowerment evaluation and technology attractiveness especially strategic technologies which explain the way of technology evaluation, selection and finally formulating suitable technology strategy in the field of drilling in South Azadegan oil field. The study firstly identifies the key challenges of oil fields in order to evaluate the technologies in field of drilling in South Azadegan oil field through an interview with the experts of industry and then they have been prioritised. In the following, the existing and new technologies were identified to solve the challenges of South Azadegan oil field. In order to explore the ability, availability, and attractiveness of every technology, a questionnaire based on Julie indices has been designed and distributed among the industry elites. After determining the score of ability, availability and attractiveness, every technology which has been obtained by the average of expert's ideas, the technology package has been introduced by Morin's model. The matrix includes four areas which will follow the especial strategy. Finally, by analysing the above matrix, the technology options have been suggested in order to select and invest.

**Keywords :** technology, technology identification, drilling technologies, technology capability

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