



# International Conference on Smart Logistics

ICSL2022 | 24-25 November 2022, İstanbul

<http://www.ulk.ist/>



## Use of Smart Contracts for Improving Efficiency in The Oil and Gas Supply Chain

### Abstract

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The oil and gas industry involves highly complex transactions in its supply chain network. In order to reduce transaction costs, companies attempt to eliminate operational burdens using state-of-art technologies. As an emerging Industry 4.0 tool, smart contracts are one of those technologies that facilitate oil and gas companies with a wide range of implementation areas. Basically, smart contracts possess a remarkable potential to substitute conventional contracts relying on the blockchain genre. Therefore it finds a concrete root to be adopted by the supply chain professionals in a short period. This study aims to illuminate the knowledge map of smart contract applications in the oil and gas distribution networks. We use the mind mapping approach for depicting potential benefits for specific operations committed in various echelons. To uncover the knowledge map, we carried out a semi-structured interview with two experts from the industry. Results indicate that smart contract use gives promising opportunities for improving efficiency in the oil and gas industry.

*Keywords:*

*Industry 4.0, Smart Contracts, Oil and Gas industry, Knowledge Map*

