

Smart Contracts towards Reducing Disputes in Construction Projects in Egypt

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Abstract. The construction industry is among the few industries that contribute to the growth and development of the economy; its size gives a representative potential in contributing to economic development. However, the nature of the construction industry in Egypt is plagued by disputes, which often arise from contractual issues, communication breakdowns, and project management challenges during various stages of the project. Furthermore, construction contracts are always viewed as complex and dense paperwork that makes it difficult to extract necessary information, inhibiting smooth operation. This can be solved by implementing smart contracts. A smart contract can include blockchain technology that executes agreed-upon terms automatically and autonomously. This data-driven mechanism automatically issues payments at the end of each clause, reducing the potential for disputes. The aim of this research is to Investigate the potential of smart contracts in reducing disputes in the construction projects. This study will be performed by adopting a qualitative approach through collecting and analysing data from various literature sources, as books, journals, and existing research, to construct a comprehensive understanding from a holistic point of view focusing on relevant keywords as smart contracts and disputes during various stages in construction projects to identify the relationship between them and present it in a relationship matrix. Second, analysis of case studies to investigate the effectiveness of smart contracts and validate the identified relationship and view its potential in construction projects.

Keywords: Smart contracts; Disputes; construction projects; Egypt.

