

Elaborated survey of the Effectiveness and implementation challenges of Crypto currency in Supply Chain Finance

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Abstract—This paper aims to evaluate the effectiveness of cryptocurrency in supply chain finance. Supply chain finance (SCF) is a method of financing that allows businesses to manage their cash flow and improve their working capital by providing short-term financing to suppliers, distributors, and other partners in their supply chain. Cryptocurrency, on the other hand, is a digital or virtual currency that uses cryptography for security and operates independently of a central bank. The integration of cryptocurrency in SCF has the potential to bring a number of benefits, including increased transparency, security, and efficiency in financial transactions. However, there are also challenges associated with the use of cryptocurrency in SCF, such as regulatory issues, lack of understanding, and volatility. This paper will review the current literature on the use of cryptocurrency in SCF and assess the potential benefits and challenges associated with its implementation. Additionally, it will provide an overview of current projects and initiatives in this area, as well as identify potential future developments. The paper will conclude by summarizing the key findings and discussing the implications for the future of SCF.

Keywords—Blockchain Technology, Supply Chain Finance (SCF), Cryptocurrency, Financial Transaction, business.

I. INTRODUCTION

Supply Chain Finance (SCF) is a financial practice that allows companies to better manage their cash flow and improve their working capital by providing short-term financing to suppliers, distributors, and other partners in their supply chain. This type of financing helps companies to improve their financial position and allows them to continue growing and expanding their business. Conventional financial ledgers and enterprise resource planning systems do not reliably allow for this level of visibility and traceability. The fact that blockchain collects information that financial ledger systems don't record is one of the technology's key advantages. It also offers a thorough, reliable, and impenetrable audit record of the three different kinds of supply chain activity. Since each member has a copy of the database, they may also examine the integrity of a transaction, spot

flaws, and hold counterparts accountable for their deeds because each member possesses their own blockchain[1].

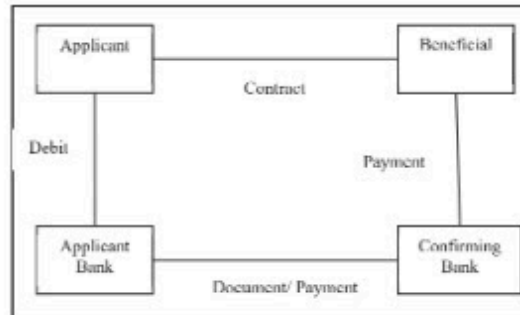


Fig. 1. Blockchain in supply chain management

As shown in Fig. 1, Blockchain also enables the use of smart contracts, which can automate processes such as releasing payments and recording ledger entries. A blockchain would not, however, take the role of the extensive variety of tasks carried out by ERP systems, including billing, payment, and reporting. Instead, it would link with existing systems at participating companies, making it simple to combine different transaction flows between companies.

As a way for businesses to improve their supply chain operations, Supply Chain Finance (SCF) has grown in prominence in recent years. Supply chain management could be greatly enhanced by blockchain technology, the digital ledger used by Bitcoin and other cryptocurrencies networks. Enhancing product traceability, enhancing partner collaboration, and facilitating quicker and more affordable product delivery are all possible with it. It can also make finance more accessible. It has been discovered that the technology can assist in resolving the issues faced by big US firms that are pioneers in logistics management through research on their use of blockchain. The industries in which these businesses operate include manufacturing, retail, tech,