

Blockchain Technology and Traceability in the Wine Supply Chain Industry

Florinda Matos¹, Tomás Alcobia² and Ana Josefa Matos³

¹DINÂMIA'CET-IUL - Centre for Socioeconomic Change and Territorial Studies, ISCTE - Lisbon University Institute, Portugal

²ISCTE - Lisbon University Institute, Portugal

³ICLab - ICAA - Intellectual Capital Association, Santarém, Portugal

florinda.matos@iscte-iul.pt

tomas_alcobia@iscte-iul.pt

anajosefa.matos@icaa.pt

DOI: 10.34190/EAIR.21.020

Abstract: In a global context, marked by the increase in digital transformation in all sectors of society, digitalisation in the wine industry faces various challenges. One of these challenges is ensuring the wine supply chain transparency and security to the more informed consumers and technology users. This study is part of an ongoing research project. It presents a literature review whose objective is to analyse the benefits of using blockchain technology in the wine industry supply chain to tackle these challenges. This technology, combined with other technologies and supported on Internet-of-Things-based interconnected systems, can guarantee protection systems with high security. This research demonstrates how blockchain technology can add value to the wine industry's supply chain and identifies the main challenges of implementing this technology in the Wine Industry. Also, it is presented a potential proposal to develop a traceability system for the wine industry. In terms of originality, this study aims to contribute and stimulate data-driven discussions regarding the use of technologies to support traditional industries' supply chains and provide security for producers and consumers.

Keywords: supply chain, wine, traceability system, blockchain
