

The Chancellor of Ghent University has the honour of inviting you to attend the public defence of the doctoral dissertation of

Di Minh Đức Trần

Title of the doctoral dissertation:

The potential of blockchain-based food traceability systems *A socio-economic perspective*

The public defence will take place on 14th January 2025 at 17:00 in room A0.1 Azalea at Campus Coupure, Coupure Links 653, 9000 Ghent.

There will be a contiguous reception to which you are heartily invited.
Please confirm your attendance before 15 December 2024 by filling this [form](#) (preferentially) or via email: diminhduc.tran@ugent.be

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Abstract of doctoral research

Food fraud and the increasing complexity of global supply chains pose significant challenges to food authenticity and safety. Simultaneously, growing consumer demand for sustainability underscores the limitations of traditional traceability systems. While conventional traceability systems are widely implemented, they often fail to ensure supply chain transparency and product authenticity, resulting in inefficiencies, particularly during food recalls. Blockchain technology offers a transformative solution, enabling immutable records, enhancing accountability, and improving the efficiency and transparency of supply chains. However, the socio-economic potential of blockchain-based traceability systems remains insufficiently explored, prompting the investigations undertaken in this dissertation.

This doctoral research examines the potential of blockchain-based traceability systems from two perspectives: consumers and food business operators. From the consumer perspective, the dissertation conducts a meta-analysis of consumers' willingness-to-pay for food traceability, followed by empirical investigations into the factors influencing consumer valuation of blockchain-based food traceability. From the perspective of food business operators, the doctoral research conceptualises the development of trust among supply chain actors during the implementation of blockchain systems. Additionally, the doctoral research conducts a holistic assessment of a blockchain-based traceability system for Protected Designation of Origin (PDO) feta cheese in Greece. This dissertation underscores the socio-economic potential of blockchain-based food traceability systems, providing evidence-based insights to inform their adoption. The findings offer valuable guidance for food businesses, policymakers, and researchers aiming to enhance supply chain transparency, foster consumer trust, and improve the sustainability of food production systems.

Brief Curriculum Vitae

Đức Trần (published name: [Duc Tran](#)) is a doctoral researcher in the Agri-food Marketing and Chain Management research group at the Department of Agricultural Economics, Ghent University, Belgium. He holds a bachelor's degree in biotechnology from Ho Chi Minh National University, University of Science (Vietnam), and a master's degree in International Master of Science in Rural Development (IMRD), jointly awarded by Ghent University (Belgium), University of Pisa (Italy), and University of Pretoria (South Africa). Duc's doctoral research examines the potential of blockchain-based food traceability systems with an empirical case study of the application of blockchain technology in the production of feta cheese in Greece.

As part of his PhD journey, Duc has contributed to two Horizon 2020 European projects, [FAIRCHAIN](#) and [WeLASER](#), where he examined socio-economic aspects of adopting advanced technologies. He has authored several peer-reviewed articles and presented at international conferences, particularly on topics such as the adoption of blockchain technology and laser-weeding systems in the agri-food sector.