# UNLOCKING THE TRUST: THE TRANSFORMATIVE IMPACT OF BLOCKCHAIN TECHNOLOGY ON BUYER SELLER RELATIONSHIP IN BUSINESS NETWORKS

Matteo Dominidiato, Università Cattolica del Sacro Cuore

Roberto Mario De Stefano, Università degli studi di Ferrara

Valerio D'Amico, Università IULM

Alessandro Romoli, Università degli Studi Internazionali di Roma

**Abstract**

The paper provides an overview of blockchain technology and its potential impact on the relationship between buyers and sellers. The paper provides introductory background on the basics of blockchain, then discusses its growing popularity and use cases.

The paper then focuses on the potential applications of blockchain in supply chain management. It highlights the benefits of using blockchain to create a more efficient and transparent supply chain, including increased traceability, reduced fraud and improved collaboration between buyers and suppliers.

The empirical part is based on a case study of an Italian company, IQC (and its technology partner, Pomiager) and its use of blockchain to improve the performance of management systems, processes, products and people skills.

In addition, the paper explores the specific application of blockchain in buyer-supplier relationships. It highlights the benefits and challenges of using blockchain in this context and provides real-world examples of its application.

**Keyword**

Blockchain; B2B relations; Trust; Transparency; Credibility; Non-Repudiation

**Track:** Technology and Innovation Marketing (Partecipazione al premio Stefano Pace JFCC)

## 1. Introduction

This study is part of the research landscape on blockchain and its application in the business context. The few research studies carried out so far have mostly focused on supply chain aspects. Our work aims to offer through a case study how blockchain can influence and change the relationship between buyers and sellers and within a business network.

The main contribution of this paper is an in-depth understanding of the practical and theoretical implications of blockchain in a business context, based on direct interviews and qualitative analysis. Different strands of literature were analysed that we felt were relevant to our work: Value co creation, blockchain, Buyer seller relationship.

Interest in blockchain is growing dramatically, with a rapid increase in investment in this technology. In the course of 2017 alone, numerous companies from a variety of sectors (finance, healthcare, insurance, real estate) have developed sophisticated proof-of-concepts, while many others are in the process of implementing significant production. (Georg, R.; et.al, 2019). Despite the growing attention to blockchain, the topic remains totally unexplored for many. As blockchain technology matures, more sophisticated solutions for complex problems arise, in fact blockchain continues to spread into various niches, such as: government, IoT, energy and environmental sectors (Bedin, A., et.al; 2020). Although the technology is still unknown to most, some academics have been paying attention to technological developments related to the implementation of blockchain, which has led to an increasing amount of research on supply chain management and how related procedures could potentially be made more efficient using this type of technology. In this regard, the need to study the issue of blockchain implementation in buyer-supplier relationships, rather than only at the level of the entire supply chain, is emphasised.

Blockchain technology was first implemented in 2009 as a basic platform designed to solve the 'double spending' problem for Bitcoin, i.e., how to transfer digital value without relying on a trusted third party (Georg, R. et.al; 2019). Blockchain technology consists of recording the exchange of information within a network where each user has a ledger with records of every movement for every piece of information. This information is exchanged in the form of transactions authorised and validated by the users of the network. An arbitrary number of transactions can be packaged together with an identifier (a hash), creating a block of information (Bedin, A.; 2020). Blocks are created with the sequential identifier of the previous block and placed in a blockchain. Once a block is once inserted into the chain, its internal data becomes immutable and can no longer be tampered with, which brings transparency to the system (Mohanta, et.al, 2018). The blocks are logically linked to each other in the order of creation, using cryptographic hashes. This means that each block stores the hash value of the previous block, where only the first block (also called the genesis block),

has no previous block. Therefore, the hash field of the previous block of the genesis block is set to a value of 0 (Kalla et.al). The digital ledger stores all past transactions in chronological order and is cryptographically sealed (Yang, L.; 2019). Since every piece of information within the blocks has been previously approved by most of the network users, the data is considered legitimate and trustworthy (Bedin, A.; 2020).

**Research Objective**

The recent focus on technological developments connected to the implementation of the blockchain has resulted in an increasing amount of research on supply-chain management and how procedures related to it could potentially made more efficient using this type of technology.

## 2. Theoretical framework

### 2.1 Digitalization in the Buyer/Seller Relationship in the B2B Context

Digitalisation has profoundly changed the dynamics of relationships between buyers and sellers in the B2B sector. Salo et al. (2020) and many other scholars have highlighted how various digital technologies and tools affect many aspects of these relationships.

According to Boyd and Koles (2019), technologies have opened new ways of building relationships. The shift is clear: economic activities have moved from physical to digital environments (Bharadwaj and Shipley, 2020). Today, B2B buyers recognise the convenience offered by digital channels and use these platforms for instant access to product information and customer reviews (Chang et al., 2019). This evolution has increased trust and transparency towards brands and companies.

On the sellers' side, the adoption of digital inbound marketing strategies such as webinars, blogs and emails has facilitated customer acquisition (Bharadwaj and Shipley, 2020). Technology helps to identify potential leads and convert them into loyal customers through personalised content. Value is no longer created by individual activities alone, but through the integration of resources between different actors (Lusch and Vargo, 2014).

One of the emerging technologies shaping the B2B sector is blockchain. First proposed by Satoshi Nakamoto in 2008, blockchain is revolutionising the way businesses operate and transactions are conducted. With its ability to ensure secure and distributed data exchange, it has the potential to improve the efficiency of the global economy, especially when combined with the Internet of Things (IoT).

## 2.2 The role of blockchain in the buyer-seller relationship

Blockchain is transforming business networks by introducing decentralised, transparent, and secure methods. Its decentralised structure and smart contract features improve trust, transparency, and traceability in supply chains. As a result, blockchain eliminates the need for intermediaries and facilitates interactions between buyers and sellers through secure and automated transactions.

The technology provides a transparent and immutable record of transactions, promoting trust and integrity between buyers and sellers. It allows customers to verify the origin and authenticity of a product, reducing the risk of receiving counterfeit goods. Thanks to blockchain's immutable transaction history, both buyers and sellers can access real-time product tracking, providing complete visibility into the status of their purchases throughout the supply chain.
In summary, blockchain not only strengthens the relationship between buyers and sellers, but also offers opportunities for greater efficiency, transparency, and collaboration in the B2B world.

### 2.2.1 Blockchain use cases

**Transactions and Payments**: With the increase in business and trade, financial institutions are focusing on optimising inefficiencies in cross-border payments to enable a bilateral and immutable transfer of value while reducing fees and delays caused by processes (Georg, et.al; 2018). In addition, blockchain promises to solve problems such as exclusive peer-to-peer transactions without centralised third parties, fraudulent replication of digital assets/values or transactions (e.g. double spending), trust building with pseudonymity, transparent but immutable record keeping, provenance and audit-enabled distributed ledger, as well as digital signatures and enforcement of legal agreements (between parties) in the form of softwarized contracts (Kalla, A.; et.al; 2022).
**Supply chain**: Current supply chain processes are based on paper records, resulting in minimal or delayed ability to detect problems in the supply chain (Georg, et.al; 2018). There are also several applications within customs operations (Brookbanks, M.; Parry,G., 2021) for information sharing and supply chain visibility, which underpin the development of trust between participants (Uk Government, 2020).
**Smart contracts**: the latest use case is 'smart contracts', a fundamental concept that has expanded the importance of blockchain technology (Kalla et.al; 2022). This concept was first introduced by (Szabo, 1997). "Smart contracts are programs stored on a blockchain that are executed when predetermined conditions are met. They are typically used to automate the execution of an agreement so that all participants can be immediately certain of the outcome without the involvement of intermediaries or loss of time' (Ibm, 2021). Moreover, a smart contract can be established between untrusted and anonymous entities in the blockchain ecosystem without the need of a third party (F. Casino, T.K. et.al; 2019), for example, Ethereum blockchains and Hyperledger blockchain platforms allow the registration of software programs within a block on the

blockchain itself. This software automatically performs certain actions on the blockchain when a prescribed condition occurs (Georg, R.; et.al, 2019)

**2.3 Evidence from literature**

According to Tapscott and Tapscott (2017), blockchain technology offers a revolutionary sort of information infrastructure with the ability to significantly alter businesses and move them toward decentralized administration.

According to Lumineau et al. (2021), blockchain technology also offers a novel method for ensuring agreements, encouraging collaboration, and facilitating coordination among business partners.

Buyer-seller relationships can benefit from several characteristics that blockchain technology offers. Here are a few of the initial characteristics that were examined in the interviews and developed in light of recent literature, particularly Sood and Pattinson's (2020) research and kalla et.al (2022):

Decentralisation: Blockchain operates on a decentralized network, meaning there is no central authority controlling the transactions. This eliminates the use of intermediaries, such as banks, and allows buyers and sellers to interact directly, reducing costs and increasing efficiency.

Traceability: Blockchain enables the tracking and tracing of products throughout the supply chain. Buyers can verify the origin, authenticity, and quality of goods, promoting transparency and reducing counterfeiting or fraud.

Security: Blockchain uses advanced cryptographic techniques to secure transactions. This increased security can give buyers and sellers confidence in their transactions and protect against fraud.

Smart contract: Blockchain platforms often support the use of smart contracts, which are self-executing contracts with predefined rules and conditions. Smart contracts can automate and enforce agreements between buyers and sellers, ensuring that transactions are completed as agreed upon without the need for intermediaries.

Fast Processing and Lower Cost: Conventional (logically centralized) systems involve multiple intermediaries and/or trusted third parties. All these intermediaries collectively increase the total delay and inflate the overall cost to process a transaction. Thanks to the decentralized and disintermediated blockchain-based system, users can perform transactions directly at peep level without involving third parties or intermediaries. Any one node or miner in blockchain-based system can process a new transaction and this update gets registered in the distributed ledger. This results in fast processing and a reduction in the overall cost per transaction as compared to conventional centralized system.

**2.4 Literature Gap and research question**

Investigating the scalability of blockchain solutions, considering interoperability challenges, and evaluating the impact on existing business models can further enhance the understanding of blockchain's role in buyer-seller relationships.

Despite the growing interest and potential of blockchain technology in buyerseller relationships, there is a need for further research to explore the challenges and limitations of blockchain adoption.

RQ: How does the adoption of blockchain technology impact the buyer-seller relationships within a network of companies, and what are the subsequent effects on the overall network dynamics?

Impact on Buyer-Seller Relationships:
The research explores how the adoption of blockchain technology influences trust, transparency, and efficiency in buyer-seller interactions. It will examine changes in transaction processes, contract enforcement, data sharing, and the level of trust between buyers and sellers within the network.

Impact on Network Dynamics:
The research will analyze the effects of blockchain adoption on the network of companies in which the buyer and seller are interconnected. It will investigate how blockchain technology influences information flow, collaboration, innovation, and value creation among the network participants. Additionally, the research will explore potential changes in power dynamics, business models, and the emergence of new opportunities or challenges within the network.

## 3. Methodology

### 3.1 Research Approach and Methodology

In accordance with the research objective, we decided to carry out this paper by referring to the "Interpretivist" paradigm, which is the most common and widely used type of qualitative research. This paradigm allows for an in-depth exploration and understanding of the phenomenon under investigation, particularly when there is a lack of existing theoretical foundations. Qualitative research and the aforementioned paradigm undoubtedly represent a suitable methodology when the phenomenon lacks a solid theoretical construction (Merriam, S.; Tisdell, E., 2016), which we propose to extend by using the strategy of single case studies.
Yin (2012) defines case study research design as an in-depth practical investigation of a current event in the actual context.
According to (Siggelkow, 2007) and (Stake, 1995) single case studies do provide extremely convincing data to test theories, as long as the single firm possesses unique features or attributes needed to meet the study objectives, this decision.
for a single firm as the empirical object of the study is also supported by similar past studies (Clulow, V.; et.al; 2003) where only single, firms in the financial were studied.
(Yin, 1994) proposed the strategies of the critical case, the extreme case, the single case and the prelude case.
Furthermore, it lends itself well when the contextual conditions are relevant to the phenomenon of the investigation (Yin, 1994). Cases can have a combination of

exploratory, descriptive, or explanatory purposes (Yin, 1994), but single case research is known for its descriptive power and focus on context.
(Yin, 1994) proposed These are the strategies of the critical case, the extreme case, the single case and the prelude case.

| Reference | Single case | Multiple case |
|---|---|---|
| (Yin, 1994) | **Critical**<br>- Testing a well formulated theory | **Literal replication**<br>- Cases selected to predict similar results<br>- When rival theories are grossly different<br>- Three to four cases |
| | **Extreme or unique**<br>- Documentation and analysis of a rare case | |
| | **Revelatory case**<br>- Observation and analysis of a phenomenon inaccessible to scientific investigation | **Theoretical replication**<br>- Cases selected to predict contrasting results<br>- When rival theories have subtle differences or to increase the degree of certainty of results<br>- Two (or three) sets of three to four cases to pursue two (or three) patterns of theoretical replications |
| | **Prelude case**<br>- Exploratory, e.g. the first phase of a multiple case study research | |

**Table 1, Selection strategies for single and multiple case designs** (source (Yin, 1994))

### 3.2 Case study and selection criteria

The choice of the case study fell on an Italian company, IQC - Italian Quality Company S.r.l., which "provides services with high professional and technological content for the digital enhancement of the performance of management systems, processes, products and people skills". IQC bases its business model on the offer "of Integrated Services to support Business by combining consulting interventions with Blockchain technology solutions for the digital traceability of organisations' performance, with the aim of preserving the value chain in all economic and social transactions. For years, IQC has been collaborating and sharing development choices with POMIAGER, an innovative SME specialised in Information Technology, forming a Group that shares policies, values, and programmes (https://itaqua.it/ita/azienda/chi-siamo/)".
Pomiager (IQC's technology partner) is an information technology company, which deals with the optimisation of technological infrastructures for organisations wishing to be competitive (https://www.pomiager.com/azienda/ ).
Following the strategies of Yin (1994), the selection logic implemented is therefore that of the "extreme case", we chose IQC precisely because of its particularity of forming a network with an ICT company such as Pomiager, to provide a service to third parties on the B2B market. This characteristic, in our opinion, was the discriminating factor that allowed us to choose IQC rather than other cases we had considered.

### 3.3. Data collection

Data collection focused on 2 sources:

1. 3 interviews in total, 1 interview for 3 different profiles belonging to the two companies: Luca Tartari (Sales Manager - IQC); Julienne Mirabella (Team Leader Software Development - Pomiager); Sandro Vecchiarelli (Chief Technology Officer - Pomiager). The interviews were conducted online, via the google meet platform and the 3 participants were asked the same questions.
    a. Interview: The interviews we will have will follow a "semi-structured" scheme (Yin, 2003), through a questionnaire created a priori, but adaptable according to the peculiarities of the company.

b. Production of a report summarising the peculiarities of the company (business model, value chain, ways of using Blockchain and networking), using materials available online, websites.

**Findings**

During the three interviews, several concepts were explored in depth, which were useful to explore how Blockchain can help companies and whether Blockchain can therefore be an added value for them, and of course numerous questions were asked to answer the research questions. Specifically, the topics of the interviews focused mainly on these topics and the evidence that emerged:
Applications in the company:

- Blockchain implementation cost: The interviewees state that the cost of blockchain development is variable and depends mainly on the 'level' of automation to be introduced. For example, to certify and notarise information at the end of a process has a minimal cost, since the transaction in blockchain, in itself, is cheap and 'making a hash' only has an energy cost. But if you want to give 'complete transparency' for example to keep 'track of operators' the complexity increases, the process and technology has to be reviewed and consequently so does the cost.
- Benefits of Blockchain application in functional and commercial terms:
    - Credibility and Non-Repudiation: Companies implementing blockchain can credibly expose their statements, on the other hand they are not repudiable, so it can sometimes be a double-edged sword. It obviously provides more credibility to the company.
    - Increased Guarantees: Blockchain makes it possible to guarantee the origin of products or the supply chain, increasing consumer confidence. This provides greater certainty and confidence in the provenance and quality of products.
    - Verification and Certification of Processes: Through blockchain, it is possible to guarantee compliance with certain processes and standards. For example, in the case of a restaurateur following regulations for celiacs, the blockchain can certify that the preparation processes have been respected and verified, offering greater reliability to customers.
    - Traceability and Credibility: Blockchain allows the entire supply chain of a product or service to be traced, providing transparent proof of all stages. This can increase the credibility of the company and its processes.
    - Guarantee of Data Authenticity and Originality: The blockchain certifies that the data processed is original and true, eliminating the possibility of manipulation. This increases confidence in the accuracy of the data used in business processes.

    - Process automation: According to the interviewees, it is still too early to say which advantages are pervasive between those who use blockchain and those who do not, at the moment the biggest difference is in the automation of only some aspects, but not for all as the validity of legal, fiscal and contractual aspects that do not allow the automation of the totality of processes is still to be clarified. The substantial difference, however, is more of a conceptual one, i.e. wanting to be more credible and transparent to our interlocutors, whoever they may be, and wanting to embark on a path of transparency and automation.
- Possible advantages of using blockchain from a commercial and marketing point of view: In this case, the interviewees were somewhat sceptical about this, with the sales manager in particular stating: 'It certainly helps, but not as a direct tool, but simply because first of all you show that you are a company that has nothing to hide. That you are a modern company that is inclined to sharing, therefore information, philosophies. But I cannot say whether technologically there is any connection with social marketing networks.
- Blockchain influences on value creation:
    - Operational efficiency: Smart contracts can automatically perform complex tasks eliminating external costs and wasted time.
    - Intermediation if there is any will no longer be a cost but an added value resulting in expertise, market analysis, etc.;
    - Improved efficiency in document management, which would allow for improved efficiency and the expansion of markets (import/export).
    - Enabling introduction of new business models such as MaaS;
- Use of blockchain in the supply chain: Respondents state that the benefits of using blockchain in the supply chain tend to be found in the relationship of trust between customer and supplier as well. In support of this, they state that they have already implemented functional experiments for the unique identification (via NFT) of machine parts, which can facilitate the trust relationship between customer and supplier.

**Buyer Seller (B - S) and trust relationships**

- How the B-S relationship works in a blockchain-enabled exchange: Respondents state that with the adoption of blockchain technology, the buyer-seller relationship is based on immutable and verifiable data. All parties involved have access to the same information and the possibility of manipulation is virtually nullified, strengthening trust. In particular, the use of Smart Contracts allows for greater credibility and traceability and enables the automatic execution of contracts between different actors or even between machines, using certain online platforms.
- How blockchain changes the way a company develops B-S relationships: Blockchain changes the way companies develop buyer-seller relationships through automation, transparency, and traceability. Trust between parties

increases due to the certainty of authenticity and provenance of products. All parties have access to the same information, the possibility of manipulation is virtually eliminated, and transparency consolidates the relationship. They also state that: "no longer needing someone to certify (a witness) the declarations passages are all automatable, including payments". This makes it clear that transparency and mutual trust can be increased. They further state: 'Any non-compliance with agreements is blatant and demonstrable', concluding that: "it can only be good for the relationship of trust between the parties, there is no possibility of anyone being otherwise".

- How does the adoption of blockchain technology affect B-S relationships within a network of companies and the effect on network dynamics: The interviewees state that there are currently not many applications on the network. But in this regard, they are developing a model that mainly concerns the use of blockchain and NFT. The project has already started; and a working prototype is planned to be realised soon. This prototype requires the creation of a consortium or at least the establishment of guidelines. This is because, when several companies with completely different but interdependent products and services come together, a shared protocol must be established to facilitate IT dialogue between them. In other words, it is important to have a set of ground rules so that the systems can interact efficiently. In summary the adoption of blockchain within a network of companies may require the creation of consortia or guidelines to enable IT dialogue between companies with different products and services.
- How has the absence of intermediation in the blockchain changed relationships of trust: Respondents point out that: "The absence of intermediation in the blockchain has changed the relationships of trust between buyer and seller, consolidating the relationship. All parties involved have access to the same information, and the possibility of manipulation is reduced. The transparency offered by blockchain consolidates the relationship between buyer and seller."

**4 Conclusions**

From the analysis conducted through the 3 interviews, blockchain technology is becoming increasingly important and pervasive in the business context, it proposes several operational and conceptual implications, useful for both future research and possible business applications:

Variable costs: The cost of implementing blockchain varies widely, depending on the depth of automation and the level of transparency a company wishes to achieve. This highlights the need for companies to carefully assess their objectives before investing in the technology.

Trust and credibility: Blockchain increases trust between parties due to its immutable and transparent nature. Companies that adopt blockchain can present themselves as more credible and transparent, thus gaining an advantageous position in the market.

Buyer-seller dynamics: The technology drastically changes the relationship between buyer and seller, making transactions more transparent and trustworthy, which could change market dynamics in several sectors.
Consortia and guidelines: As the use of blockchain expands, consortia or guidelines may need to be created to ensure efficient interoperability between different companies. This represents both a challenge and an opportunity for companies wishing to collaborate on common blockchain platforms.
Marketing implications: The impact of blockchain on marketing currently remains uncertain. However, the perception of a company as modern and transparent could have indirect benefits in terms of image and reputation.
Reduction of intermediation: blockchain reduces or eliminates the need for intermediaries in many processes, increasing trust between parties and potentially reducing costs.

In summary, blockchain represents a significant opportunity for companies to improve operational efficiency, credibility and relationships with customers and suppliers. However, as with any new technology, it is essential that companies approach its adoption with a clear understanding of the potential benefits and challenges.

REFERENCES


Arsel, Z,; Asking Questions with Reflexive Focus: A Tutorial on Designing and Conducting Interviews; Journal of Consumer research; 2017

Alonso-Garcia, J., Pablo-Martí, F. and Nunez-Barriopedro, E. (2021), "Omnichannel management in B2B complexity based model: empirical evidence from a panel of experts based on fuzzy cognitive maps", Industrial Marketing Management, Vol. 95, pp. 99-113.

Bharadwaj, N. and Shipley, G.M. (2020), "Salesperson communication effectiveness in a digital sales interaction", Industrial Marketing Management, Vol. 90, pp. 106-112.

Boyd, D.E. and Koles, B. (2019), "Virtual reality and its impact on B2B marketing: a value-in-use perspective", Journal of Business Research, Vol. 100, pp. 590-598.

Brookbanks, M.; Parry,G. (2021). The impact of a blockchain platform on trust in established relationships: a case study of wine supply chains. *Supply Chain Management: An International Journal*.

(F. Casino, T.K. Dasaklis, C. Patsakis, . (2019). A systematic literature review of blockchain-based applications: current status, classification and open issues,Telemat. Inform. . *Telematics and Informatics*.

Anshuman Kalla; Chamitha de Alwis; Pawani Porambage; Gurkan Gür; Madhusanka Liyanage. (2022). A survey on the use of blockchain for future 6G: Technical aspects, use cases,. *Journal of Industrial Information Integration*.

Anshuman Kalla; Chamitha de Alwis; Pawani Porambage; Gürkan Gür; Madhusanka Liyanage f,. (2022). A survey on the use of blockchain for future 6G: Technical aspects, use cases,challenges and research directions. *Journal of Industrial Information Integration*.

Augusto Bedin; Wander Queiroz; Miriam A M Capretz. (2020). A Blockchain Approach to Social Responsibility. *Electrical and Computer Engineering*, 3-7-9.

Chang, S.E., Chen, Y.C. and Wu, T.C. (2019), "Exploring block chain technology in international trade", Industrial Management&Data Systems, Vol. 119, pp. 1712-1733

Clulow, V.; Gerstman, G.; Barry, C. (2003). The resource-based view and sustainable competitive advantage: The case of a financial services firm. *Journal of European Industrial training*.

Georg, R.; et.al. (2019). Blockchain for business. (B. L. Rohith P. George, A cura di) *Journal of investment compliance*, 1-4.

Eisenhardt, K.M.; Better Stories and Better Constructs: The Case for Rigor and Comparative Logic; 1991

Ibm. (2021). *Cosa sono i contratti intelligenti sulla blockchain?* Tratto da https://www.ibm.com/it-it/topics/smart-contracts

Lusch, R. and Vargo, S. (2014), Service-Dominant Logic: Premises, Perspectives, Possibilities. Cambridge University Press, Cambridge.

Maglio, P.P. and Lim, C. (2018), “Innovation and smart service systems”, in Gallouj F. & Djellal F. (Eds), A Research Agenda for Service Innovation, Edward Elgar Publishing, Northampton,MA, pp. 103-115.
Merriam, S. B., & Tisdell, E. J. (2016). Qualitative Research: A Guide to Design and Implementation (4th ed.). San Francisco, CA: Jossey Bass.

Merriam, S.; Tisdell, E. (2016). Qualitative Research. Jossey bass.
Robert K. Yin.; 2012;. Case Study Research Design and Methods. V.
Salo, J., Tan, T. M., & Makkonen, H. (2020). Digitalization of the buyer–seller relationship in the steel industry. Journal of Business & Industrial Marketing, 36(7), 1229-1245.
Sklyar, A., Kowalkowski, C., Sörhammar, D. and Tronvoll, B. (2019), “Resource integration through digitalisation: a service ecosystem perspective”, Journal of Marketing Management, Vol. 35Nos 11/12, pp. 974-991.
Yin, R.K.; 2003; Case Study Research: Design and Methods
Yin, R. K., 1994; Case Study Research Design and Methods: Applied Social Research and Methods Series. Second edn. Thousand Oaks, CA: Sage Publications Inc.
Yin, R.K. (2012) Case study methods. In Cooper, H., et al. (Eds.), APA Handbooks in Psychology. APA Handbook of Research Methods in Psychology, Vol. 2. Research Designs: Quantitative, Qualitative, Neuropsychological, and Biological, American Psychological Association, 141-155.

Tan, T. M., & Saraniemi, S. (2022). Trust in blockchain-enabled exchanges: Future directions in blockchain marketing. Journal of the Academy of Marketing Science, 1-26.

Siggelkow, N. (2007). Persuasion With Case Studies. *Academy of management study*.
Stake, R. (1995). The art of case study research. Thousand Oaks, CA: Sage. .
Szabo, N. (1997). Formalising and securing relationships on public networks. Tratto da ttps://firstmonday.org/ojs/index.php/fm/article/download/548/469)
Uk Government. (2020). *2025 UK border strategy.*
Yang, L. (2019). The blockchain: State-of-the-art and research challenges. *Journal of Industrial Information Integration*
Scapens, R.; Doing Case Study Research; 2004
https://www.pomiager.com/azienda/).