JOURNAL OF BUSINESS MANAGEMENT & INNOVATION
JBMI INSIGHTS
ISSN Online 2616-8421
JBMI Insight

# Potential of Blockchain Technology in Securing Digital Transactions in Startups in Zug, Switzerland

**[*1]Walter B. Pimentel & [2]Alain P. Knezevic**

**[1]Student, University of Bern**

**[2]Lecturer, University of Bern**

***Email of the corresponding author: walterpimentel@gmail.com**

## Abstract

The potential of blockchain technology in securing digital transactions for startups in Zug, Switzerland is vast. By leveraging the decentralized nature of blockchain, startups can mitigate the risk of single points of failure and enhance the security of their transactions. The immutability of the blockchain ledger ensures that once a transaction is recorded, it cannot be altered or tampered with, providing a tamper-proof audit trail. The use of cryptographic techniques and consensus mechanisms adds an extra layer of security, ensuring that transactions are secure and verifiable. Smart contracts automate transaction processes, reducing the need for intermediaries and minimizing the risk of human error or manipulation. The study found that blockchain technology fosters trust and transparency in digital transactions. The immutability of blockchain records ensures that all transaction data is permanently recorded and cannot be altered. This transparency creates a trusted environment where all stakeholders can verify and audit transactions, reducing the risk of fraud and enhancing trust among participants. As transaction volumes increase, startups need to consider the scalability of their chosen blockchain platform to ensure that it can handle the growing demands and maintain performance without compromising security. The study concluded that blockchain technology brings enhanced security, immutability, and transparency to digital transactions. By leveraging the decentralized nature of blockchain, startups can significantly reduce the risk of fraud, data manipulation, and unauthorized access. The study recommended that startups in Zug should prioritize in educating their teams about blockchain technology and its potential applications in securing digital transactions. Startups should carefully evaluate the scalability of blockchain solutions to ensure they can handle increasing transaction volumes as the business grows. User-centric design and intuitive interfaces should be considered to ensure a positive experience for customers engaging in digital transactions.

**Keywords:** *Blockchain Technology, Digital Transactions, Startups, Switzerland*

## 1.0 Introduction

Security is a critical consideration for startups engaging in digital transactions on the blockchain. Blockchain technology provides several security features that enhance the integrity and confidentiality of transactions (Omar, Jayaraman, Salah, Yaqoob & Ellahham, 2021). The decentralized nature of blockchain, coupled with cryptographic algorithms, ensures that transactions are securely recorded and cannot be easily tampered with. The use of digital signatures and encryption techniques adds an extra layer of security, authenticating participants and protecting sensitive data from unauthorized access. Additionally, the immutability of the blockchain ledger ensures that once a transaction is recorded, it cannot be altered, providing a tamper-proof audit trail. Smart contracts further contribute to security by automating transaction execution and eliminating the need for intermediaries, reducing the risk of fraud or manipulation. However, it is essential for startups to recognize that security on the blockchain requires comprehensive measures beyond the technology itself (Carson, Romanelli, Walsh & Zhumaev, 2018). Secure key management practices, such as secure storage and access controls, are crucial to protect the private keys used for transaction signing. Adherence to secure coding practices and regular security audits can help identify vulnerabilities and mitigate risks. Furthermore, startups must educate their users about best security practices to prevent phishing attacks or other social engineering techniques. By combining robust technological security measures with proper governance, employee awareness, and adherence to industry standards, startups can ensure the highest level of security in their blockchain-based digital transactions.

Chod, Trichakis, Tsoukalas, Aspegren and Weber (2020) argued that the immutable and transparent ledger in blockchain technology brings significant benefits to startups engaging in digital transactions. The immutability of the ledger ensures that once a transaction is recorded and validated on the blockchain, it cannot be altered or deleted. This feature provides a high level of data integrity and security, reducing the risk of fraudulent activities or unauthorized modifications. Startups can rely on the immutability of the blockchain ledger to establish trust with their stakeholders, as it provides an auditable trail of all transactions that cannot be manipulated, enhancing transparency and accountability. The transparency aspect of the blockchain ledger further strengthens trust in digital transactions for startups. All transactions recorded on the blockchain are visible to all participants in the network, creating a decentralized and transparent record (Tripoli & Schmidhuber, 2018). This transparency allows startups to verify and validate the authenticity of transactions, promoting fairness and eliminating the need for intermediaries to vouch for the integrity of the data. The transparent nature of the ledger also helps to prevent disputes and resolve them efficiently, as transaction details are readily available for all stakeholders to review and reference. Generally, the immutable and transparent ledger of blockchain technology empowers startups to conduct digital transactions with increased confidence, trust, and efficiency.

Blockchain technology provides startups in Zug with enhanced traceability of digital transactions (Rejeb, Rejeb, Simske & Treiblmaier, 2021). Each transaction recorded on the blockchain contains a unique identifier and timestamp, allowing startups to track and verify the origin, movement, and ownership of assets or goods. This traceability feature enables startups to establish a transparent and tamper-proof record of transactions, reducing the risk of fraud, counterfeit goods, or supply chain inefficiencies. With a clear and immutable transaction history, startups can gain insights into their operations, ensure compliance with regulations, and build trust with customers and partners

who value transparency and accountability. Auditing capabilities are greatly enhanced through blockchain technology for startups in Zug. The blockchain ledger serves as an auditable trail of all transactions, eliminating the need for manual record-keeping or reconciliation processes (Köse, 2020). Startups can easily audit and verify the history of transactions, ensuring compliance with regulatory requirements specific to their industry. The transparency and immutability of the blockchain ledger make audits more efficient, as auditors can independently access and review transaction details, reducing the reliance on potentially error-prone or biased information. By leveraging the auditing capabilities of blockchain, startups in Zug can demonstrate their commitment to regulatory compliance and strengthen trust among investors, regulators, and other stakeholders.

Tokenization allows startups to represent physical or digital assets as tokens on the blockchain (Sazandrishvili, 2020). By converting assets into tokens, startups gain the ability to fractionalize ownership, enabling broader participation and access to traditionally illiquid assets. This opens up new investment opportunities and liquidity avenues for startups. Tokenization also streamlines the process of transferring ownership, as tokenized assets can be easily traded on blockchain-based platforms, reducing the need for intermediaries and associated costs. Startups in Zug can leverage asset tokenization to unlock value in various domains, such as real estate, intellectual property, art, or financial instruments, attracting a wider range of investors and enhancing liquidity in their markets. The tokenization of assets on the blockchain brings increased transparency and security to digital transactions for startups in Zug (Harish, Liu, Li, Zhong & Huang, 2023). Each tokenized asset represents a unique digital record on the blockchain, allowing for transparent tracking of ownership, provenance, and transaction history. This transparency reduces the risk of fraud and improves the overall integrity of asset transactions. Additionally, the use of blockchain's cryptographic techniques ensures secure and tamper-proof storage of asset ownership information. Tokenized assets are protected by private keys and digital signatures, making them resistant to unauthorized changes or fraudulent activities. By embracing asset tokenization, startups in Zug can streamline their digital transactions, enhance market accessibility, and establish a more efficient and secure ecosystem for asset ownership and transfer.

Blockchain technology provides startups in Zug with enhanced data privacy by design (Holotescu, 2018). Unlike traditional centralized systems, where a single entity controls and manages data, blockchain operates on a decentralized network where data is distributed across multiple nodes. This decentralization ensures that no single entity has full control over the data, reducing the risk of data breaches or unauthorized access. Additionally, blockchain allows for the use of private and permissioned blockchains, where access to sensitive data can be restricted to authorized participants. Startups can ensure compliance with data privacy regulations, such as the European Union's General Data Protection Regulation (GDPR), by implementing privacy-focused solutions on the blockchain. Encryption is a crucial aspect of securing digital transactions on the blockchain. Blockchain employs cryptographic techniques to encrypt transaction data, ensuring that it is secure and only accessible to authorized parties (Kher, Terjesen & Liu, 2021). Public-key cryptography is commonly used in blockchain, where each participant has a pair of cryptographic keys: a public key for encryption and a private key for decryption. This encryption provides confidentiality and integrity to the transaction data, making it extremely difficult for unauthorized entities to intercept or manipulate the information. By utilizing encryption on the blockchain, startups in Zug can protect sensitive data, such as personal information or financial details, from unauthorized disclosure or tampering.

Startups in Zug can greatly benefit from collaboration in the blockchain ecosystem. Collaboration enables startups to leverage the expertise and resources of other blockchain projects, industry players, or technology partners (Casey, Crane, Gensler, Johnson & Narula, 2018). By collaborating, startups can share knowledge, exchange best practices, and collectively work towards developing common standards and frameworks for blockchain-based digital transactions. Collaborative efforts can lead to the creation of shared platforms or networks, where startups can join forces to provide more comprehensive and scalable solutions. Through collaboration, startups can unlock new business opportunities, gain access to a wider customer base, and enhance the overall adoption and acceptance of blockchain technology in the region. Interoperability is also a crucial for startups in Zug to ensure seamless integration and interaction between different blockchain networks, platforms, or systems (Majeed, Khan, Yaqoob, Kazmi, Salah & Hong, 2021). It allows startups to overcome the challenge of fragmentation, where multiple blockchain protocols or standards exist. Interoperability ensures that startups can communicate and transact across different blockchain ecosystems, enabling the transfer of assets or data between disparate networks. This interoperability not only enhances efficiency but also expands the reach and impact of startups' digital transactions. It enables startups to connect with a broader network of participants, exchange value or information, and tap into new markets or use cases. Establishing interoperability standards and protocols is essential for startups to fully realize the potential of blockchain technology and foster a more interconnected and collaborative ecosystem in Zug.

### 1.1 Statement of the Problem

Startups in Zug, Switzerland, recognize the potential of blockchain technology in securing their digital transactions; however, they face several challenges in effectively implementing and leveraging this technology. There is a lack of comprehensive understanding and awareness among startups regarding the capabilities and intricacies of blockchain technology. This knowledge gap hinders startups from fully harnessing the potential of blockchain to secure their digital transactions. The regulatory complexities pose a significant challenge for startups. While Zug has a favorable regulatory environment for blockchain, startups must navigate the evolving legal landscape surrounding blockchain technology and digital transactions. Compliance with existing regulations, such as data privacy and financial regulations, can be intricate, requiring startups to dedicate resources and expertise to ensure adherence. Furthermore, startups encounter scalability issues when implementing blockchain solutions for digital transactions. As transaction volumes increase, the blockchain network's capacity to process and validate transactions can become a bottleneck. Ensuring that the chosen blockchain platform can scale effectively while maintaining security and efficiency is a key concern for startups.

Additionally, startups in Zug may face resistance or skepticism from traditional industries or stakeholders who are unfamiliar with blockchain technology. Overcoming this resistance and building trust among potential users, partners, and investors is crucial for the successful adoption and implementation of blockchain solutions for digital transactions. In summary, startups in Zug face challenges in terms of understanding and awareness of blockchain technology, regulatory compliance, scalability, and building trust among stakeholders. Addressing these challenges is essential to fully unlock the potential of blockchain technology in securing digital transactions and enabling startups in Zug to benefit from its inherent advantages.

## 2.0 Literature Review

Sensoy, Silva, Corbet and Tabak (2021) discovered that traditional monetary and banking institutions are being challenged by cryptocurrencies such as Bitcoin, EOS, Ethereum, Litecoin, and others. Bitcoin, Ethereum, and other digital currencies rely on a technological stack called blockchain. Blockchain technology has the potential to significantly impact institutional economies. Applications built on blockchain technology are already decentralizing and simplifying essential institutional tasks like supply chain management, marketing, and finance. The researcher in this study looked at the financial implications of blockchain technology in terms of transaction fees for seed funding. Based on the transactional nature of blockchain technology and the theory of transaction cost economics, the researcher proposed a model to explain the efficacy of blockchain-based applications; then used the model to show how many issues with startup funding can be solved using blockchain technology. Some of the most basic problems in entrepreneurial finance are the aforementioned knowledge asymmetry and transaction expenses associated with connecting an entrepreneur with an investor and the parameters of the funding contract. Lastly, elaboration was done on how a blockchain-based finance system may solve these issues and make funding startups easier and more distributed.

Multiple market failures, including high transaction costs for certification and monitoring and large minimum investment quantities, constrain green investment vehicles. In this research Pimentel, Boulianne, Eskandari and Clark (2021) evaluated the possibility of using blockchain-based security tokens to fix these market flaws by using an inductive approach supported by qualitative evidence from expert comments. Tokenizing real estate or debt/equity instruments may save costs by eliminating middlemen and automating routine tasks; it can also increase transparency while decreasing the need for large amounts of liquid capital. Software risk, regulatory uncertainty, and a lack of developed investing infrastructure are the key factors slowing the widespread use of tokenized assets. Asian policymakers and decision-makers may work to alleviate these problems. In order to incorporate important experiences and stakeholder input into cohesive regulatory and investment frameworks, it is necessary to design pilot use cases and construct regulatory sandboxes for tokenized securities. Though tokenized securities are still in their infancy and have certain limitations, their potential to democratize green finance makes it imperative to take a proactive approach to considering and developing this financing method.

According to Weking, Mandalenakis, Hein, Hermes, Böhm and Krcmar (2020), blockchain technology allows for novel organizational structures for economic activity, cuts down on the time and money spent on middlemen, and increases confidence in a network of participants. The significance of this breakthrough technology is reflected in an emerging line of study and a number of companies that are investigating its applications. While there are exciting applications of this cutting-edge technology, work on modifying current and developing new forms of enterprise is still in its infancy. To investigate the effects of blockchain technology on business models, a taxonomy of blockchain business models was created using data from 99 blockchain businesses. As a consequence, the researcher now had a better grasp of how blockchain technology alters established business models while also giving rise to novel ones, according to the identification of five archetypal patterns. The study's authors hoped to utilize the findings to find new patterns enabled by blockchain technology and show how businesses may leverage the technology to create new revenue streams.

Osmani, El-Haddadeh, Hindi, Janssen and Weerakkody (2021) found out that because of its usefulness as a decentralized, trusted network independent of any central authority, blockchain has quickly become a mainstream technology in the field of information systems. Even though blockchain is being used in many different industries (such as finance, supply chains, healthcare, education, and energy consumption) to facilitate the growth of Internet-enabled "distributed databases," there are not many exploratory studies available to shed light on the state of the field. Therefore, it is crucial to investigate the current state of blockchain technology in the financial industry, with a focus on how blockchain designs might help the financial sector achieve a competitive edge. In order to uncover many potential characteristics of blockchain research in the financial sector, this systematic literature analysis analyses the content of the 60 most important publications and professional industry reports from peer-reviewed relevant academic literature in the finance sector from 2010 to 2021. This research shed light on the scope of blockchain, its applications in the financial sector, its benefits over the present state of the industry, and the obstacles that have so far prevented the widespread adoption of blockchain-based financial information systems. Blockchain technology has the potential to become the "next-generation networks" that will completely disrupt the financial services industry, but more study is needed in three key areas first.

Knezevic (2018) noted that blockchain has the potential to significantly alter the public and private financial industries. Blockchains provide a record of consensus with a cryptographic audit trail that can be maintained and checked by numerous nodes, making them a useful tool for organizing transactions in a distributed ledger. Many internal and external verification procedures may be streamlined or eliminated altogether, and contractual parties can utilize a shared protocol to dynamically monitor assets and agreements. Although blockchain technology was first developed to underpin digital currency, it might have far-reaching applications in the financial sector. Stakeholders should conduct a thorough evaluation of its applicability in business applications despite its promise of a secure distributed infrastructure to promote the sharing, trading, and integration of information across all users and other parties. There is no thorough assessment on the blockchain as disruptive technology in finance and its use, despite the fact that blockchains have a broad range of potential uses, including but not limited to cryptocurrencies, financial services, and risk management. To address this knowledge gap, researchers surveyed experts in the financial sector to learn about their thoughts on the future of blockchain technology and the difficulties it faces.

Otia and Bracci (2022) conducted research to develop blockchain applications that can be used in public sector audits conducted by government auditors. This study's overarching goal is to use blockchain technology to this problem and that method in order to audit governmental institutions. Since regulated processes are examined from all linked and affiliated sides, taking into consideration the time component, the auditing process might be compared to the strategy game of chess. Thus, it was concluded that implementing blockchain and digital technologies into the budgeting process on a regular basis is an ideal method to eliminate the possibility of budgetary fraud. Moreover, the current economic system is maturing into a digital one in a processable format. The information-based digital economy represents a fundamental shift in the way economies grow and evolve. The fast shift of economic agents from the actual sector to the network sector is facilitated by new information and network technologies, which in turn ensure the growth of the digital economy and the emergence of novel business processes. With blockchain, financial contracts get the competitive advantages they need to reduce transaction costs, increase

information transparency, and better manage operational risks. Incorporating blockchain technology into modernized corporate processes and highly organized centralized structures helps ensure their financial stability. High-quality contract execution between economic actors in the digital economy is made possible by blockchain's use in financial transactions.

Treiblmaier and Sillaber (2021) performed research to fill the void in the literature by doing a comprehensive literature assessment of blockchain to determine its potential applications for business-to-consumer (B2C), business-to-business (B2B), and business-to-government (B2G) interactions. Forty publications from scholarly journals in the fields of business, management, and accounting as indexed in the Scopus database are examined. In this analysis, we focus on how blockchain might help customers by enabling fast transactions, reliable user interfaces, and product tracking. Snapshots, machine-to-machine transactions, accounting, business process management, and provenance traceability are just some of the uses for blockchain in the business world. Blockchain technology is opening up new markets for digital payment services and international trade, and digital storage, authentication, and record-keeping prospects in the public sector.

Xie, Tang, Huang, Yu, Xie, Liu and Liu (2019) reported that blockchain technology has seen remarkable growth in the social economy in recent years. Blockchain technology is first used for Bitcoin transactions due to its numerous advantageous qualities. As Bitcoin's popularity grows, the banking sector will become more intertwined with blockchain technology. Since then, a growing number of banks, credit unions, and other financial organizations have acknowledged blockchain's potential and explored ways to include it into their own operations. Examples include R3CEV, Hyperledger, and Qiwi. Blockchain technology is being explored by several financial institutions as a means to reduce transaction costs and boost operational efficiency, particularly in the areas of financial notes, cross-border payments, and asset-backed securitization. Blockchain technology clearly has bright future potential in the banking sector.

## 3.0 Research Findings

The study found out that Blockchain technology offers startups in Zug a high level of security for digital transactions. The decentralized nature of blockchain, combined with cryptographic algorithms, ensures that transaction data is securely stored and cannot be easily tampered with or compromised. This provides startups with a robust security mechanism for protecting sensitive transaction information. Blockchain technology fosters trust and transparency in digital transactions. The immutability of blockchain records ensures that all transaction data is permanently recorded and cannot be altered. This transparency creates a trusted environment where all stakeholders can verify and audit transactions, reducing the risk of fraud and enhancing trust among participants. Startups in Zug can benefit from the efficiency and cost savings offered by blockchain technology. The automation of transaction processes through smart contracts eliminates the need for intermediaries, streamlines operations, and reduces transaction costs. This enables startups to conduct digital transactions more efficiently while optimizing resource allocation. Blockchain provides an immutable audit trail of all digital transactions. This traceability allows startups to track and verify the origin, movement, and ownership of assets or goods throughout the transaction lifecycle. It enhances accountability and reduces disputes by providing an indisputable record of transactions.

Moreover, it was discovered that Blockchain technology enables the tokenization of assets, allowing startups to represent physical or digital assets as tokens on the blockchain. This fractional

ownership concept unlocks new opportunities for startups to digitize and trade assets, providing liquidity and increasing accessibility to investment opportunities. Research findings emphasize the importance of understanding and navigating the regulatory landscape surrounding blockchain technology and digital transactions. Startups in Zug must ensure compliance with relevant regulations and work closely with regulatory bodies to address any concerns related to data privacy, consumer protection, and financial regulations. Collaboration among startups, industry experts, and academia in Zug's thriving blockchain ecosystem plays a crucial role in unlocking the potential of blockchain technology in securing digital transactions. Research findings suggest that startups benefit from knowledge sharing, collective problem-solving, and collaboration with established players in the industry to drive innovation and adoption. While blockchain technology offers significant advantages, research highlights the importance of addressing scalability challenges. As transaction volumes increase, startups need to consider the scalability of their chosen blockchain platform to ensure that it can handle the growing demands and maintain performance without compromising security.

## 4.0 Conclusion

In conclusion, the potential of blockchain technology in securing digital transactions for startups in Zug, Switzerland is immense. The region's status as "Crypto Valley" provides a favorable ecosystem for blockchain innovation, attracting numerous startups and fostering collaboration and knowledge sharing. Blockchain technology brings enhanced security, immutability, and transparency to digital transactions. By leveraging the decentralized nature of blockchain, startups can significantly reduce the risk of fraud, data manipulation, and unauthorized access. The cryptographic algorithms used in blockchain ensure strong encryption, further strengthening the security of digital transactions. The integration of smart contracts enables startups to automate transaction processes, eliminating the need for intermediaries and reducing costs. These self-executing contracts can be tailored to meet specific requirements, providing efficiency and transparency in executing digital transactions. Zug's startups can leverage the transparency and accountability offered by blockchain to enhance trust among stakeholders. The ability to verify and audit transactions on the blockchain promotes transparency, instilling confidence in customers, partners, and investors.

Furthermore, blockchain technology opens up new avenues for startups in Zug to explore innovative business models. It facilitates the tokenization of assets, enabling fractional ownership and new fundraising mechanisms such as Initial Coin Offerings (ICOs) or Security Token Offerings (STOs). This democratizes access to investment opportunities and enhances liquidity. As startups in Zug continue to adopt blockchain technology for securing digital transactions, they become part of a global ecosystem that embraces decentralized and trustless systems. Collaboration with other blockchain startups and participation in blockchain consortia can further enhance the security and efficiency of digital transactions. It is crucial for startups to navigate the regulatory landscape surrounding blockchain technology. In Zug, the Swiss government has shown a supportive stance toward blockchain innovation, providing a conducive environment for startups to explore and implement blockchain solutions. Therefore, blockchain technology has the potential to revolutionize the way startups in Zug secure their digital transactions. With its enhanced security, immutability, transparency, and innovative features like smart contracts, blockchain can foster trust, efficiency, and new business opportunities for startups, solidifying Zug's position as a leading hub for blockchain innovation.

## 5.0 Recommendations

The study recommended that startups in Zug should prioritize educating their teams about blockchain technology and its potential applications in securing digital transactions. This will enable them to fully understand the benefits and capabilities of blockchain and make informed decisions regarding its implementation. Startups can benefit from collaborating with other blockchain startups and industry experts in Zug. By sharing knowledge, experiences, and best practices, startups can accelerate their learning curve and collectively drive innovation in securing digital transactions using blockchain technology. It is essential for startups to stay updated on the regulatory landscape surrounding blockchain technology and digital transactions. They should ensure compliance with relevant regulations and engage with regulatory bodies to provide input and feedback, fostering a regulatory framework that supports blockchain innovation while addressing concerns related to security, privacy, and consumer protection. Blockchain technology is rapidly evolving, and startups in Zug should stay abreast of the latest advancements and emerging trends in the field. Continuous innovation and adaptation will enable startups to leverage new features and protocols that enhance the security and efficiency of digital transactions.

Furthermore, startups can begin by developing proof of concepts to assess the feasibility and potential impact of blockchain technology in securing their digital transactions. By testing the technology on a smaller scale, startups can identify challenges, refine their approaches, and gain insights into the practical implementation of blockchain. Collaborating with established players in the industry, such as financial institutions or technology companies, can provide startups with access to resources, expertise, and a broader customer base. Strategic partnerships can accelerate the adoption of blockchain technology in securing digital transactions and open up new business opportunities for startups. Startups should carefully evaluate the scalability of blockchain solutions to ensure they can handle increasing transaction volumes as the business grows. They can explore different blockchain platforms, such as Ethereum or Hyperledger, and assess their scalability features to choose the most suitable option for their specific needs. While the security and transparency offered by blockchain are crucial, startups should also prioritize providing a seamless user experience. The integration of blockchain technology should not introduce complexities or hinder the usability of their products or services. User-centric design and intuitive interfaces should be considered to ensure a positive experience for customers engaging in digital transactions.

## REFERENCES


Carson, B., Romanelli, G., Walsh, P., & Zhumaev, A. (2018). Blockchain beyond the hype: What is the strategic business value. McKinsey & Company, 1, 1-13.

Casey, M., Crane, J., Gensler, G., Johnson, S., & Narula, N. (2018). The impact of blockchain technology on finance: A catalyst for change.

Chod, J., Trichakis, N., Tsoukalas, G., Aspegren, H., & Weber, M. (2020). On the financing benefits of supply chain transparency and blockchain adoption. Management science, 66(10), 4378-4396. https://doi.org/10.1287/mnsc.2019.3434

Harish, A. R., Liu, X. L., Li, M., Zhong, R. Y., & Huang, G. Q. (2023). Blockchain-enabled digital assets tokenization for cyber-physical traceability in E-commerce logistics financing. Computers in Industry, 150, 103956. https://doi.org/10.1016/j.compind.2023.103956

Holotescu, C. (2018). Understanding blockchain technology and how to get involved. The 14thInternational Scientific Conferencee Learning and Software for Education Bucharest, April, 19, 20.

Kher, R., Terjesen, S., & Liu, C. (2021). Blockchain, Bitcoin, and ICOs: a review and research agenda. Small Business Economics, 56, 1699-1720. https://doi.org/10.1007/s11187-019-00286-y

Knezevic, D. (2018). Impact of blockchain technology platform in changing the financial sector and other industries. *Montenegrin Journal of Economics, 14(1), 109-120.* https://doi.org/10.14254/1800-5845/2018.14-1.8

Köse, B. Ö. (2020). Towards a better understanding of blockchain based government and public services. In IV. International Applied Social Sciences Congress (C-IASOS20). İzmir Kavram Meslek Yüksekokulu.

Majeed, U., Khan, L. U., Yaqoob, I., Kazmi, S. A., Salah, K., & Hong, C. S. (2021). Blockchain for IoT-based smart cities: Recent advances, requirements, and future challenges. *Journal of Network and Computer Applications, 181, 103007.* https://doi.org/10.1016/j.jnca.2021.103007

Omar, I. A., Jayaraman, R., Salah, K., Yaqoob, I., & Ellahham, S. (2021). Applications of blockchain technology in clinical trials: review and open challenges. *Arabian Journal for Science and Engineering, 46, 3001-3015.* https://doi.org/10.1007/s13369-020-04989-3

Osmani, M., El-Haddadeh, R., Hindi, N., Janssen, M., & Weerakkody, V. (2021). Blockchain for next generation services in banking and finance: cost, benefit, risk and opportunity analysis. *Journal of Enterprise Information Management, 34(3), 884-899.* https://doi.org/10.1108/JEIM-02-2020-0044

Otia, J. E., & Bracci, E. (2022). Digital transformation and the public sector auditing: The SAI's perspective. Financial Accountability & Management, 38(2), 252-280. https://doi.org/10.1111/faam.12317

Pimentel, E., Boulianne, E., Eskandari, S., & Clark, J. (2021). Systemizing the challenges of auditing blockchain-based assets. *Journal of Information Systems, 35(2), 61-75.* https://doi.org/10.2308/ISYS-19-007

Rejeb, A., Rejeb, K., Simske, S., & Treiblmaier, H. (2021). Blockchain technologies in logistics and supply chain management: A bibliometric review. Logistics, 5(4), 72. https://doi.org/10.3390/logistics5040072

Sazandrishvili, G. (2020). Asset tokenization in plain English. *Journal of Corporate Accounting & Finance, 31(2), 68-73.* https://doi.org/10.1002/jcaf.22432

Sensoy, A., Silva, T. C., Corbet, S., & Tabak, B. M. (2021). High-frequency return and volatility spillovers among cryptocurrencies. Applied Economics, 53(37), 4310-4328. https://doi.org/10.1080/00036846.2021.1899119

Treiblmaier, H., & Sillaber, C. (2021). The impact of blockchain on e-commerce: A framework for salient research topics. Electronic Commerce Research and Applications, 48, 101054. https://doi.org/10.1016/j.elerap.2021.101054

Tripoli, M., & Schmidhuber, J. (2018). Emerging Opportunities for the Application of Blockchain in the Agri-food Industry.

Weking, J., Mandalenakis, M., Hein, A., Hermes, S., Böhm, M., & Krcmar, H. (2020). The impact of blockchain technology on business models–a taxonomy and archetypal patterns. Electronic Markets, 30, 285-305. https://doi.org/10.1007/s12525-019-00386-3

Xie, J., Tang, H., Huang, T., Yu, F. R., Xie, R., Liu, J., & Liu, Y. (2019). A survey of blockchain technology applied to smart cities: Research issues and challenges. IEEE communications surveys & tutorials, 21(3), 2794-2830. https://doi.org/10.1109/COMST.2019.2899617