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BLOCKCHAIN TECHNOLOGIES AND THEIR ROLE IN THE FORMATION OF INVESTMENT STRATEGIES

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Abstract. *In the modern business environment, the financial sector is one of the largest areas of application of blockchain technologies. Due to its decentralization and transparency, blockchain helps to reduce transaction costs, increase investor confidence and automate asset management processes. This, in turn, opens up new opportunities for the development of investment strategies based on more accurate data and faster execution of transactions. Given these research objectives, this article focuses on investment strategies using blockchain technologies in a competitive environment. For this purpose, it is necessary to identify the main problems that can be solved with the help of blockchain technologies in supply chains, to study the use of blockchain in the financial sector, to assess the impact of blockchain on the security, transparency and efficiency of financial transactions, and to analyse its impact on the formation of investment strategies. In preparing this article, the author used methods of generalization and systematization, tabular and graphical methods, and a systematic approach. Blockchain technologies significantly increase transparency, security, and efficiency in supply chains and the financial sector by reducing transaction costs and automating processes. They enable the creation of new financial products, attract investors, and improve risk management. Thanks to the decentralized ledger, all participants can view and verify transactions, which creates trust among investors. Integrating blockchain with machine learning can further improve investment strategies by automating processes and detecting anomalies.*

Keywords: *blockchain, investment, business environment, business partnership.*

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Introduction

Financial technologies are developing rapidly in the modern world, and blockchain technologies play a key role in this process. Blockchain, as a decentralized database, provides a high level of transparency, security, and efficiency of transactions. This makes it attractive to various industries, including the financial sector, where it can significantly change approaches to asset management and investment strategies.

Blockchain technology has become a revolutionary force, transforming various industries by offering decentralized, transparent, and secure solutions (Francisco & Swanson, 2018). In the field of supply chain management, its ability to increase efficiency and reduce costs is particularly noteworthy. Accurate demand forecasting is a key element of supply chain optimization that directly affects inventory management, resource allocation, and overall productivity (Modares et al., 2023).

Traditional methods of demand forecasting often fail due to fragmented data, delayed information flow, and reliance on centralized systems that are prone to inefficiency and error. These shortcomings often result in a mismatch between supply and demand, leading to problems such as over-supply or shortages, which incur significant costs (Modares et al., 2024). In addition, the lack of transparency and trust in conventional systems often forces stakeholders to make suboptimal decisions. The increasing complexity of global supply chains further exacerbates these problems, highlighting the need for investment solutions to improve the accuracy and reliability of demand forecasting (Babamiri et al., 2020; Emroozi et al., 2024).

In 2023, foreign direct investment reached its lowest level in fourteen years (excluding the pandemic year) (Fig. 1).

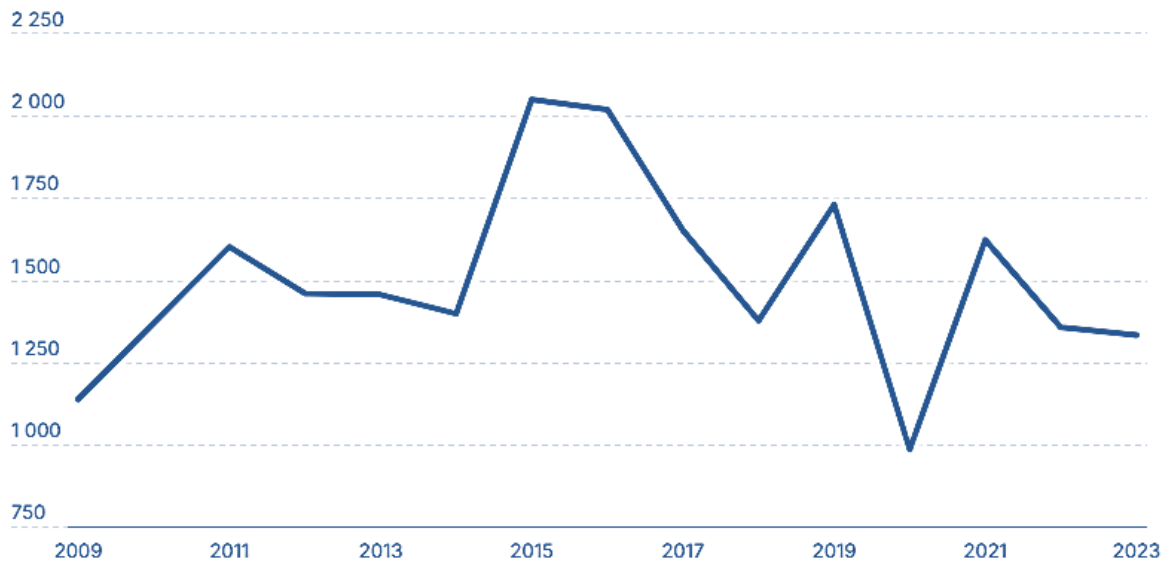


Figure 1. Global FDI inflows, billions of dollars

Source: UN Trade and Development <https://unctadstat.unctad.org/datacentre/dataviewer/US.FdiFlowsStock>

In 2023, global FDI inflows fell to \$1.33 trillion. Excluding the COVID-19 pandemic in 2020 and the financial crisis of 2009, this is the lowest value seen since 2005 in value terms and since 1996 as a share of gross domestic product (GDP). The 2023 value as a percentage of GDP, 1.3%, is less than a third of the 2000 share.

The financial sector is one of the biggest beneficiaries of blockchain technologies in the general business environment. Due to its decentralization and transparency, blockchain allows to reduce transaction costs, increase investor confidence, and automate asset management processes. This opens up new opportunities for the development of investment strategies based on more accurate data and faster execution of transactions.

Given the above research objectives, this article focuses on the blockchain investment strategy in a competitive environment. For this purpose, it is necessary to identify the main problems that are solved by blockchain technologies in supply chains, to study the application of blockchain technology in the financial sector, to assess the impact of blockchain on the security, transparency and efficiency of financial transactions, and to analyse the impact of blockchain technologies on the formation of investment strategies.

Literature Review

Blockchain technologies have the potential to significantly change the financial sector by providing new approaches to asset management and investment strategies. Studying this issue is important for understanding how blockchain can be integrated into modern financial systems and what benefits it can bring. For example, a study by He et al. (2025) examines the impact of blockchain technology on environmental investment decisions, emphasizing its potential to improve sustainable supply chains. Transparency and traceability in supply chains are widely discussed in the works of Francisco & Swanson (2018); Kamble, & Sharma, R. (2020); Tian (2016); Kshetri (2018). At the same time, Modares et al. (2023) single out the issues of implementation cost and cost-effectiveness from the entire list of problems. Some scholars study innovative financial products and services in more detail, in particular: He et al. (2025) study the impact of blockchain technologies on green investment decisions in sustainable supply chains, Javaid et al. (2022) focus on the use of blockchain technologies in financial services, Zhang et al. (2021) highlight the impact of political uncertainty on ICO markets. Such a systematization helps to understand various aspects of blockchain adoption and its impact on investment strategies, supply chain management, financial services, and other industries. However, it is necessary to investigate these issues in more depth, as this will help to understand the potential and challenges associated with the introduction of blockchain in the financial sector.

Methods

In preparing this article, a number of general scientific and analytical methods were used. In particular, the methods of generalization and systematization were used to collect and systematize existing research on blockchain technologies and their impact on the financial sector. The analysis of scientific articles, reports, and other sources to identify the main trends, challenges, and prospects for blockchain implementation allowed us to identify key aspects and problems related to the implementation of blockchain technologies in the financial sector. The systematic method was used to substantiate the impact of blockchain technologies on the financial processes of the modern business environment, as well as to identify key aspects of the use of blockchain in the formation of an enterprise's investment strategy.

Results

Since the advent of blockchain technologies in 2008, they have come a long way. Initially, blockchain was associated mainly with cryptocurrencies such as Bitcoin, but over time, its use has expanded to other areas.

At least 10 cryptocurrency-focused venture capital funds that are actively investing in crypto and blockchain startups raised more than \$100 million in new funds in 2024 (Table 1).

Table 1. Changes in crypto venture capital funds

Management	Name of the fund	Growth period	Growth volume
Paradigm	Fund III	June 2024	\$850,000,000
Uncorrelated Ventures	Crypto and Software Fund	January 2024	\$315,000,000
Bitkraft Ventures	Fund 3	April 2024	\$275,000,000
Accolade Partners	Accolade Blockchain III	November 2024	\$202,000,000
Hack VC	Fund II	February 2024	\$150,000,000
ParaFi Capital	Parafi Capital Fund	August 2024	\$120,000,000
Galaxy Digital	Galaxy Ventures Fund I LP	July 2024	\$113,000,000
Golden ventures	Fund V	February 2024	\$100,000,000
Gate Ventures, The Blockchain Center in Abu Dhabi	Falcon Gate Ventures	August 2024	\$100,000,000
Borderiess Capital	DePIN Fund III	September 2024	\$100,000,000

Source: Galaxy Research <https://www.galaxy.com/insights/research/crypto-blockchain-venture-capital-q4-2024/>

Today, blockchain is used to create smart contracts, decentralized financial platforms (DeFi), supply chain management, healthcare, and many other industries.

The blockchain sector saw a variety of investment trends in 2023, with total crypto funds raised amounting to USD 9.615 billion across 1174 fundraising rounds. This marks a shift to more frequent, albeit smaller, fundraising events compared to 2022.

In the fourth quarter of 2024, \$3.5 billion (+46% q-o-q) of venture capital was invested in cryptocurrency and blockchain startups in 416 deals (-13% q-o-q) (Fig. 2).

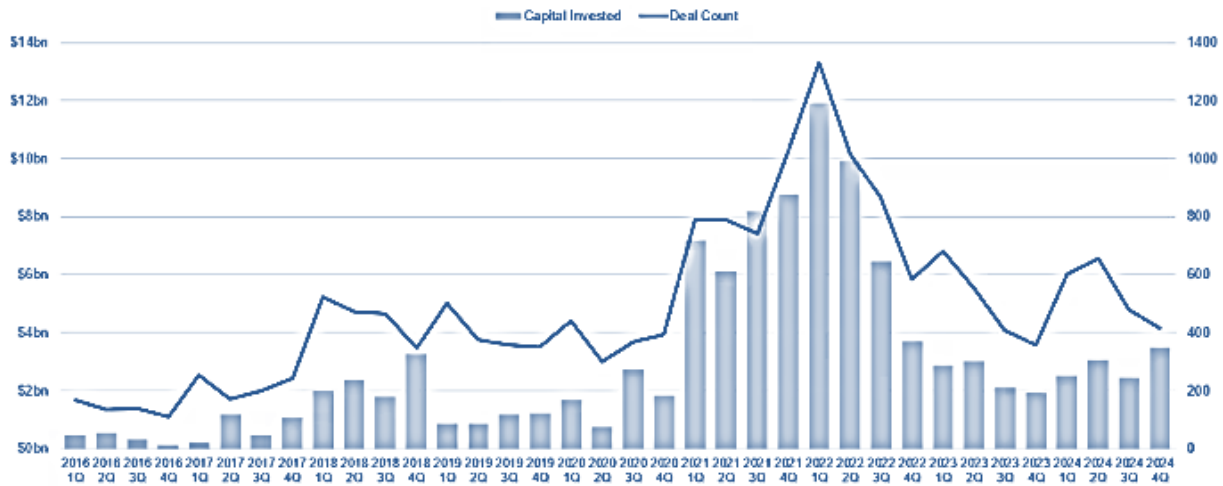


Figure 2. Investments in cryptocurrency and blockchain startups

Source: Galaxy Research <https://www.galaxy.com/insights/research/crypto-blockchain-venture-capital-q4-2024/>

Blockchain technology has the potential to revolutionize supply chain management by addressing several key challenges, such as transparency, data integrity, fraud prevention, and operational efficiency. While the applications of blockchain in supply chains are diverse, understanding the specific problems it solves and the configurations that make these solutions effective is crucial (Modares et al. 2023). To provide a clearer picture, a structured overview of blockchain applications in different aspects of the supply chain is necessary.

Table 2 provides a classification of blockchain use cases by the type of problem they solve, the blockchain configuration models used, the technologies and frameworks used, and the impact on the supply chain efficiency.

Table 2. Application of blockchain in the supply chain

Impact on supply chain efficiency	Technologies and frameworks used	Blockchain configuration model	Type of problem solved	Author
Improved inventory accuracy, real-time updates, reduced inventory and overstocking	Smart contracts, cryptographic hashing	Private blockchain	Inventory management	Tian et al. (2016)
Increased trust between stakeholders, minimized fraud risks, secure transactions	Distributed ledger, consensus mechanisms	Blockchain consortium	Preventing fraud in the blockchain	Kshetri (2018)
End-to-end visibility, improved customer trust, real-time product tracking	Blockchain researcher, Tokenization	Public blockchain	Traceability and transparency of the blockchain	Bai et al. (2024)
Better communication between parties, faster decision-making, reduced delays and costs	Smart contracts, interoperability	Hybrid blockchain (private + public)	Supply chain coordination	Durach et al. (2021)
Reduced document fraud, faster document verification, improved contract enforcement	Cryptographic signatures, digital certificates	Public blockchain	Contract documents and verification	Agi et al. (2022)

Faster settlement times, lower transaction fees, improved liquidity management	Smart contracts, payment systems,	Private blockchain	Payment and settlements	Niu et al. (2021)
Improved trust and cooperation with suppliers, simplified supplier registration	A distributed book, Identified management	Private or blockchain consortium	Supplier management	Modares et al. (2024)
Increased accuracy of demand forecasting, optimized inventory levels, reduction of excess inventory and shortages	Predictive analytics, smart contracts, data integration	Private or consortium blockchain	Demand forecasting	Bai et al. (2024)
Optimized operational planning and resource allocation, improved flexibility of production schedules	Smart contracts, decentralized planning algorithms	Private blockchain	Optimization of operational planning	Queiroz et al. (2019)
Improved Life Cycle Assessment (LCA) due to enhanced traceability and tracking of product origin and environmental impact	Tracking systems, Blockchain researcher	Public blockchain	LCA and environmental tracking	Liu et al. (2022)

This organized approach will help to highlight how blockchain can transform various areas of the supply chain, from inventory management and fraud prevention to payment systems and regulatory compliance. Table 2 shows the applications of blockchain in the supply chain.

The immutable exchange of data using blockchain technology has become an important tool in various industries to increase transparency, trust, and data accuracy. The core function of Blockchain - creating a tamper-proof and transparent ledger - allows organizations to share data without the risk of modification or tampering. This ability is crucial for improving forecasting accuracy, as all stakeholders in a business partnership have access to consistent and reliable data in real time.

In the context of blockchain, immutable data exchange ensures that information such as transaction history, inventory levels, product tracking, and shipment statuses cannot be altered once recorded. For example, in supply chains, companies can use blockchain to share critical data between suppliers, manufacturers, and retailers, ensuring that everyone is working with the same reliable set of data. This reduces forecast discrepancies and allows for more accurate demand planning (Modares et al., 2023).

Blockchain technology shows potential applications for financial services. Transaction fees, which traditional financial institutions profit from, can be reduced or eliminated with blockchain technology. Consumers have to rely on banks or third-party organizations to carry out transactions related to money transfers. The adoption of blockchain technology can avoid intermediaries such as banks, thereby eliminating fees and other costs associated with these services (Alam et al., 2021). As a result, banks may face problems with transaction volume and profitability. This allows private and public networks to communicate.

By enabling a previously unimaginable level of connectivity and programmability between goods, services, assets, and holdings, the digitization of financial instruments, which includes digital assets, smart contracts, and programmable money, extends the benefits of blockchain technology. Digitization makes it possible to determine the origin of assets and the full history of transactions in a single, shared source of truth, guaranteeing data integrity. Increased automation improves overall work efficiency. Real-time settlements, auditing, and reporting become possible, and the processing time, the potential for error and delay, and the number of steps and intermediaries required to achieve the same levels of trust as in conventional processes are reduced (Zhang et al., 2021).

The most expensive cryptocurrency is Bitcoin, which as of February 2021 exceeded the value of USD 55,000 per coin. It is often called the currency of the future. It is important to note

that Cashapp, developed by Square, received \$1.63 billion in bitcoin revenue in the third quarter of 2019, and in October 2020, Square invested \$50 million in bitcoin (Gilbert, 2025).

Among the 100 global companies that have filed patent applications, China accounts for 46% of global blockchain patent applications (Table 3). Other leading countries are the United States (24%), Japan (8%), and South Korea (7%).

Table 3. Distribution of blockchain patent applications by country

Category	Blockchain patent applications by country, %
China	46
USA	24
Japan	8
South Korea	7
Germany	5
Sweden	2
United Kingdom	2
Finland	1
Ireland	1
Antigua and Barbuda	1
Virgin Islands	1
Canada	1
Cayman Islands	1

Source: Statista <https://www.statista.com/statistics/1119427/global-blockchain-patent-applications-country-breakdown/>

In China, the leaders in blockchain and cryptocurrency are Bitmain Technologies with \$450 million, Hyperchain with \$249 million, and Jixin Blockchain with \$100 million. In the United States, the largest blockchain patent holder in 2019 was IBM with 185 active patent families, followed by Ant Financial (78), Bank of America (74), Walmart (50), and Mastercard (48). In Europe, the largest blockchain patent holder in 2019 was Ant Financial with 202 active patent families, followed by nChain (81), Siemens (34) and Visa (34).

In terms of blockchain spending, the banking industry had the highest spending in 2020 (29.7%), followed by process manufacturing (11.4%), discrete manufacturing (10.9%), professional services (6.6%), and retail (6%). The professional services industry is expected to have the fastest growth in blockchain spending with a CAGR of 54%, followed by healthcare (43.9%) and state and local government (48.2%).

Table 4. Global top areas of blockchain technology use

Category	Cases of use, %
Digital currency	33
Data access and sharing	32
Data reconciliation	31
Identity protection	31
Payments	30
Track-and-trace	27
Asset protection	27
Asset transfer	25
Certification	23
Record reconciliation	23

Source: Deloitte. https://www2.deloitte.com/content/dam/insights/us/articles/6608_2020-global-blockchain-survey/DI_CIR%202020%20global%20blockchain%20survey.pdf

The top use cases for blockchain for organizations worldwide include digital currency (33%), data access and exchange (32%), and data reconciliation (31%) (Table 4). Other popular use cases include personal data protection (31%), payments (30%), and tracking and tracing (27%).

Business leaders see blockchain as an enabling technology that will further transform their business. More than 80% believe that blockchain will allow them to integrate contactless business processes, improve business functionality, and meet financial reporting requirements. Investment banks have also reported billions of dollars in cost savings thanks to blockchain technologies.

Some 87% of senior executives around the world believe that blockchain will allow them to improve future integration into contactless business processes. On the other hand, 86% say blockchain will open up new business functions and revenue streams in their industry. At the same time, 83% of organizations say they are “very or somewhat confident” in meeting blockchain-related financial reporting requirements.

The world's largest investment banks reported 70% of potential savings in central financial reporting costs due to blockchain technologies. In addition, they reported 50% potential savings on centralized operations and 50% potential savings on business operations. In addition, the world's largest investment banks could save \$12 billion, or 38% of annual cost savings, by using blockchain technology.

Cryptocurrency stocks are attracting a lot of attention from business partners today. They offer access to the blockchain without storing volatile coins. In 2025, cryptocurrency-related stocks are the top choice for investors. These stocks combine innovation with growth potential. Many experts consider them safer than direct crypto investments (Top Crypto Stocks to Buy in 2025).

Blockchain adoption continues to grow across industries. As it grows, crypto stocks become more important. Crypto shares combine traditional investments with blockchain innovations. They are linked to companies that use the blockchain rather than the most volatile coins. This connection provides stability, making them attractive to cautious investors.

Blockchain is changing industries, from finance to healthcare. By December 2024, blockchain adoption has skyrocketed, and more and more businesses are integrating it. The blockchain market is expected to reach \$67.4 billion by 2026. This growth indicates great opportunities for companies leading the way (Top Crypto Stocks to Buy in 2025).

Around the world, financial services remain centralized and tiered. Financial data is often stored in centralized databases and must pass through several intermediaries, such as the front office, back office, and other departments. This system lacks transparency and relies solely on intermediaries and database security to protect data. Even with well-secured databases, there is a significant risk of data leakage and server hacking. Blockchain technology, based on digital currency, has the potential to be used for both domestic and international money transfers. Banks that have already invested heavily in centralized systems may be hesitant to adopt blockchain technology domestically, but they could benefit greatly from it globally. International transfers benefit from significant differences in legislation and IT systems between banks in different countries (Javaid et al., 2022).

Blockchain technology makes the record of online transactions accessible, secure and impenetrable. Similar to the Internet, blockchain is a shared record of transactions dispersed across an extensive network of users and has no central authority. It consists of several data blocks, each containing a set of transactions. The blocks are connected and protected by advanced cryptography. Major stock exchanges are looking at how Blockchain could enable near-instant settlement of shares by reducing transaction times and overhead. This increases security and transparency while automating compliance with smart contracts.

The financial services sector is increasingly using blockchain technology in various business partnership formats; this invention has revolutionized the global financial system and increased its efficiency and security. Blockchain technology is improving the global financial services sector in numerous ways. The principle of building a worldwide network using Blockchain that is both cost-effective and possibly transparent is known as "cross-border settlement" and this is the main

advantage of Blockchain. Costs are reduced while service seekers gain added value (Alao & Cuffe, 2020).

Blockchain technology is playing a transformative role in shaping investment strategies by offering increased security, transparency, and efficiency. Figure 3 summarizes the key aspects that support this claim.

Blockchain technologies play an important role in shaping investment strategies, providing new opportunities for the business environment and business partnerships. Due to its unique properties, blockchain can significantly affect various aspects of the investment process.

Blockchain technologies provide a high level of transparency through a decentralized ledger that allows all participants to view and verify transactions. This creates trust among investors and reduces the risk of fraud and error. In a business environment where trust is a key factor, blockchain can become the basis for building reliable investment strategies.

Blockchain eliminates intermediaries, which reduces transaction costs and increases transaction speed. This is especially important for cross-border trade and trade finance, where traditional methods can be slow and cumbersome. In the business environment, it means being able to respond more quickly to market changes and use resources more efficiently.

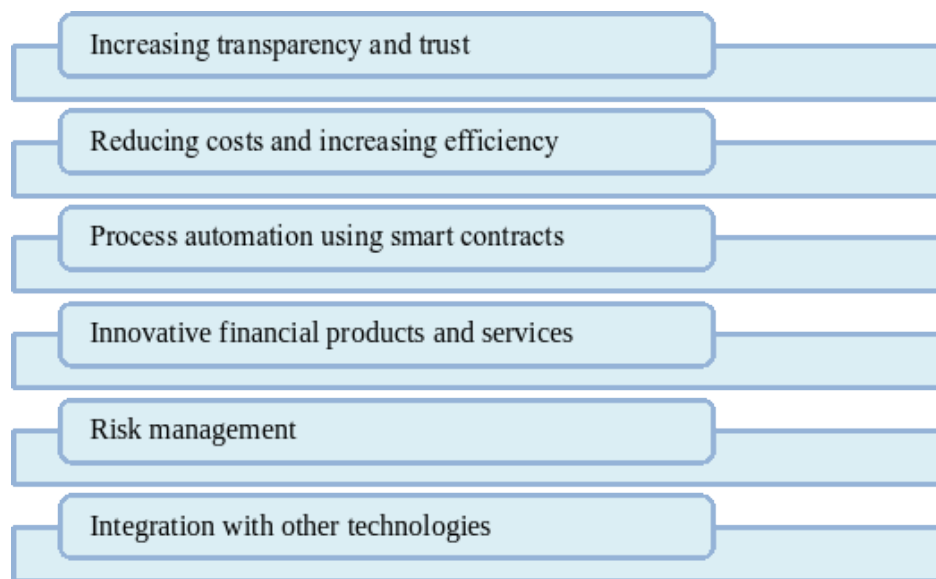


Figure 3. Key aspects of the role of blockchain technology in shaping investment strategies

Smart contracts, which are an integral part of blockchain technologies, allow automating the fulfilment of contractual terms, reducing the need for manual intervention and minimizing the risk of disputes. This increases the efficiency of business processes and allows you to focus on strategic tasks. In business partnerships, this contributes to greater reliability and predictability of interaction between partners.

Blockchain opens up new opportunities to create innovative financial products and services, such as cryptocurrencies and decentralized financial platforms (DeFi). This can attract new investors and provide more accessible and inclusive financial services. In the business environment, it promotes the development of new markets and investment opportunities.

The transparency and security features of blockchain help reduce the risks associated with the failure of loans and counterparties. By providing a clear and immutable record of transactions, blockchain increases the reliability of financial systems. This is especially important for business partnerships, where reliability and stability are key factors for successful cooperation.

The combination of blockchain with artificial intelligence and machine learning technologies can further improve investment strategies by automating processes, detecting anomalies, and improving decision-making. This creates new opportunities for the business environment and facilitates the development of innovative business partnerships.

Thus, blockchain technologies have the potential to revolutionize the financial industry by providing a secure, transparent, and efficient infrastructure for investment management. Their ability to optimize processes, reduce costs, and increase trust makes them a valuable tool for shaping modern investment strategies in the business environment and business partnerships.

Conclusion

Blockchain technologies have significant potential to transform supply chains, the financial sector, and investment strategies. In supply chains, blockchain can improve inventory accuracy, real-time updates, and reduce excess inventory through the use of smart contracts and cryptographic hashing. It increases trust between stakeholders and minimizes fraud risks through the use of a distributed ledger and consensus mechanisms. The use of blockchain ledgers and tokenization provides end-to-end visibility and improves customer trust by facilitating real-time traceability of goods.

In the financial sector, blockchain technologies provide a high level of security for financial transactions through the use of advanced cryptography that is resistant to hacking. The decentralized blockchain ledger allows all participants to view and verify transactions, which creates trust among investors and reduces the risk of fraud and errors. The blockchain enables faster and cheaper transactions by eliminating the need for intermediaries, which is particularly useful for cross-border trade and trade finance.

Blockchain technology allows for the creation of new financial products and services, such as cryptocurrencies and blockchain-based applications, which can attract new investors and provide more accessible and inclusive financial services. Blockchain's transparency and security features help reduce the risks associated with credit and counterparty failure by providing a clear and immutable record of transactions. The combination of blockchain with machine learning can further improve investment strategies by automating processes, detecting anomalies, and improving decision-making, leading to a more efficient and secure financial services business environment.

For further research, it would be advisable to focus on assessing the impact of blockchain technologies on various industries, such as healthcare, education, energy, and others. An analysis of the blockchain's potential to improve transparency, security, and efficiency in these industries will help identify opportunities and challenges for blockchain implementation in various sectors of the economy, including investment attractiveness.

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References

- Alam, S.; Shuaib, M.; Khan, W.Z.; Garg, S.; Kaddoum, G.; Hossain, M.S.; Zikria Y.B. (2021). Blockchain-based Initiatives: Current state and challenges. *Computer Networks*, Volume 198, 108395. <https://doi.org/10.1016/j.comnet.2021.108395>
- Alao O.; Cuffe P. (2020). Towards a blockchain special purpose vehicle for financing independent renewable electricity projects in sub-Saharan Africa 2020 6th IEEE International Energy Conference, ENERGYCon, IEEE, pp. 1041-1046. <https://doi.org/10.36227/techrxiv.12659909.v1>
- Babamiri, A. S.; Pishvae, M. S.; Mirzamohammadi, S. (2020). The analysis of financially sustainable management strategies of urban water distribution network under increasing block tariff structure: A system dynamics approach. *Sustainable Cities and Society*, 60, 102193. <https://doi.org/10.1016/j.scs.2020.102193>
- Emroozi, V.B.; Kazemi, M.; Pooya, A.; Doostparast, M. (2024). Dynamic modeling of human error in industrial maintenance through structural analysis and system dynamics. *Risk Analysis*, risa.17652. <https://doi.org/10.1111/risa.17652>
- Foreign direct investment: Inward and outward flows and stock, annual. UNCTADstat. Available at: <https://unctadstat.unctad.org/datacentre/dataviewer/US.FdiFlowsStock>

- Francisco, K.; Swanson, D. (2018). The supply chain has no clothes: Technology adoption of blockchain for supply chain transparency. *Logistics*, 2(1), 2. <https://doi.org/10.3390/logistics2010002>
- Galaxy Research. Available at: <https://www.galaxy.com/insights/research/crypto-blockchain-venture-capital-q4-2024/>
- Gilbert, N. (2025). 51 Critical Blockchain Statistics: 2024 Data Analysis & Market Share. URL: <https://financesonline.com/blockchain-statistics/>
- He, J.; Zhao, Y.; Zhang, B.; Chen, L.; Ma, X. (2025). The Impact of Blockchain Technology on Green Investment Decisions for a Sustainable Supply Chain with an Overconfident Manufacturer. *Sustainability*, 17(1), 284 <https://doi.org/10.3390/su17010284>
- Javaid, M. Haleem, A. Singh, R.P. et al. (2022). A review of Blockchain Technology applications for financial services. *Bench Council Transactions on Benchmarks, Standards and Evaluations*, 2, 100073. <https://doi.org/10.1016/j.tbench.2022.100073>
- Kamble, S. S.; Gunasekaran, A.; Sharma, R. (2020). Modeling the blockchain-enabled traceability in the agriculture supply chain. *International Journal of Information Management*, 52, 101967. <https://doi.org/10.1016/j.ijinfomgt.2019.05.023>
- Kshetri, N. (2018). 1 Blockchain's roles in meeting key supply chain management objectives. *International Journal of information management*, 39, 80-89. <https://doi.org/10.1016/j.ijinfomgt.2017.12.005>
- Modares, N.M.; Farimani, F. Dehghanian (2024). A new vendor-managed inventory four-tier model based on reducing environmental impacts and optimal suppliers selection under uncertainty. *Journal of Industrial and Management Optimization*, 20 (1), pp. 188-220. <https://doi.org/10.3934/jimo.2023074>
- Modares, A.; Motahari Farimani, N.; Abdari, K. (2023). Evaluating Implementation Cost of Blockchain in Organizations through System Dynamics. *Journal of Systems Thinking in Practice*, Online First. <https://doi.org/10.22067/jstinp.2023.85842.1084>
- Pawczuk, L.; Holdowsky, J.; Massey, R.; Hansen, B. (2020). Deloitte's 2020 Global Blockchain Survey: From promise to reality. Deloitte. URL: https://www2.deloitte.com/content/dam/insights/us/articles/6608_2020-global-blockchain-survey/DI_CIR%202020%20global%20blockchain%20survey.pdf
- Textor, C. (2020). Country breakdown of leading 100 companies filing blockchain invention patent applications globally in 2020. Statista. URL: <https://www.statista.com/statistics/1119427/global-blockchain-patent-applications-country-breakdown/>
- Tian, F. (2016). An agri-food supply chain traceability system for China based on RFID & blockchain technology. In 2016 13th international conference on service systems and service management (ICSSSM) (pp. 1-6). IEEE. <https://doi.org/10.1109/ICSSSM.2016.7538424>
- Top Crypto Stocks to Buy in 2025: Investment Strategies and Expert Picks. ECOS. URL: https://ecos.am/en/blog/top-crypto-stocks-to-buy-in-2025-investment-strategies-and-expert-picks/?srsltid=AfmBOopmzfyvWvbOER_e05DLn9oJz3j4-wu_odL9Zwwmvl_kNsHNyoUc
- Zhang S.; Zhang D.; Zheng J.; Aerts W. (2021). Does policy uncertainty of the blockchain dampen ICO markets? *Account. Finance*, 61 pp. 1625-1637. <https://doi.org/10.1111/acfi.12639>



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