The Impact of Society 5.0 on Supply Chain Management: Opportunities and Challenges

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Abstract

With the use of cutting-edge technologies like AI, blockchain, IoT, and robotics, a new vision for society called Society 5.0 promises to merge the digital and physical worlds. By enabling real-time visibility and control over every component of the supply chain, this new paradigm has the ability to completely alter how supply chain management is done. Increased effectiveness, productivity, and sustainability are just a few benefits that come with using Society 5.0 in supply chain management. However, it also presents substantial difficulties such data privacy, cybersecurity, and ethical issues. This study investigates how Society 5.0 influences supply chain management, showing both the advantages and disadvantages of this new paradigm. It also offers advice on how businesses should get ready to benefit from Society 5.0 while minimizing its possible hazards.

Keywords: *supply chain management, Society 5.0, blockchain, Artificial Intelligence, Cyber Threats*

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1. Introduction

Supply chain management (SCM), which includes all processes that transform raw materials into finished items, can be defined as the management of the transportation of goods and services. To enhance client profitability and obtain a competitive edge in the market, a company's supply-side process is proactively simplified (Mușetescu, 2012). SCM, which includes the entire process of converting raw materials into completed goods, is the central management of the flow of goods and services. By streamlining their supply chains, businesses can reduce costs and deliver products to customers more quickly. Companies gain from SCM because it shields them against interruptions, pricey recalls, and legal action. The five most crucial components of SCM are planning, acquiring raw materials, production, distribution, and returns (Felea & Albăstroiu, 2013).

According to experts in the industry, the effective application of technology capabilities increases reconfigurability through decentralized decision-making and brings a high level of control over the information and its quality. The development of technology makes it possible to identify risks and eliminate them through proactive decision-making, which enhances supply chain efficiency and company

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continuity. Society 5.0 generate an intelligent supply chain that is better, faster, more precise, and dependable and can think critically and adapt (Loon et al., 2018).

The development of the phrase "Society 5.0" conceptually is the result of technological advancements and the digitization of supply chains and production procedures. Society 5.0 is "a human-centric society that promotes economic development with a focus on minimizing societal problems through a system that comprises an integrated cyberspace and physical space." It is a byproduct of global sociological, economic, and industrial development that is ongoing. Real-time communication between different supply chain nodes is made possible by the technical and digital improvements in supply chains and related operations. Autonomous decision-making is made possible by Society 5.0 at many points in the supply chain to reduce risks, seize opportunities, and boost output.

Suppliers want to build and run the most effective and economical supply chain they can. The supply chain includes everything from production to product creation, as well as the information systems needed to manage these processes. SCM is frequently used to consolidate or connect product manufacturing, shipping, and distribution. By streamlining their supply chains, businesses can reduce costs and deliver goods to customers more quickly. Internal sales, distribution, manufacturing, and inventory maintained by firm suppliers are all strictly regulated. SCM has developed on the premise that the majority of products on the market originated from several businesses that collaborated to build the supply chain (Potočan, et al., 2021). Although supply chains have been around for a while, the majority of firms have only recently realized how important they are to their operations. The potential and difficulties that Society 5.0 encounters in SCM were discussed in this study.

Even for tiny businesses, managing a supply chain may be challenging. Supply chain management is a form of management because a solid service flow delivers the right goods at the right time for an appropriate cost for the client. By documenting every step that must be taken, blockchain makes it simple to route compliance activities, demonstrating its undeniable status as an incorruptible ledger.

The inaccuracy in records, fraud and corruption, billing difficulties, and this intended to analyze the entire chain need to be checked simultaneously by objective third parties. The selection of the product's source and construction, as well as hyper segmentation, are the main forces behind the transformation of the conventional supply chain. Factors are causing sizable IT companies to begin a mixture of influence to the entire supply chain with a high automation approach in a hybrid structure. Blockchain technology has emerged as the dominant phenomenon in the financial world since the creation of Bitcoin. All transactions in Blockchain are transparent to all users and can be tracked in the ledger. It has no failure and is not alterable or reversible at any time during the transactions. One benefit of the Blockchain ledger is its automatic updating functionality. The same strategy used to supply chain management will undoubtedly produce excellent outcomes (Dutta, et al., 2020).

2. Literature review

Society 5.0 is a relatively new issue on the spectrum, but it has been covered in a lot of periodicals and academic studies. I will therefore review the published literature on relevant issues like Industry 4.0 and supply chain 5.0 to better present the idea of Society 5.0 in supply chain and logistics. The authors give the following definition of Industry 4.0's models or paradigms (Carayannis & Jancelewicz, 2022):

- "Intelligent product, with the ability to save data related to operation and standards."
- "Intelligent Machine," a system that prioritizes self-organizing behavior over conventional approaches.
- "Augmented Operator," which allows for adaptable process components thanks to automation knowledge.

The Internet of Service (IOS) describes the availability of software creation tools online, the Cyber-Physical System (CPS), a computer system controlled by algorithms, and the Internet of Things (IoT), which refers to the idea of physical objects connected to the Internet via sensors and exchanging data with other connected objects.

Industry 4.0, however, is not without its share of difficulties, chief among them the need to compete with other businesses in terms of quality, timeliness of delivery, and efficiency while also controlling the significant costs associated with putting such technologies into use. Behind Industry 4.0 is also the requirement to adopt many complicated systems, including Cyber-Physical systems, and integrate them with the current processes, as well as the requirement for highly qualified technical staff to oversee the implementation.

In terms of Society 5.0, it can be said that it is an evolution of technology that puts a strong emphasis on people and seeks to enhance their quality of life. Parallel intelligence, which is seen as the final level of mechanization and electrification, is a well-known technological idea in Society 5.0. Parallel intelligence is described as the connection between virtual and actual reality. Smart societies improve all facets of life rather than just the industrial sector, as in Industry 4.0, by connecting values through the Cyber-Physical system and intelligent societies, like the IoT. It illustrates how issues like aging and natural catastrophes can be solved by integrating society with technology (Szyrocka, et al., 2022).

Today, both humans and robots may contribute to the supply chain and logistics. Supply chain 4.0 employs robots as well as cutting-edge technology, including the Internet of Things, cloud computing, additive manufacturing, and blockchain. The supply chain can operate more efficiently because of the efficient integration of all the technologies described. The primary goal of utilizing this type of technology is to develop a Cyber-Physical System that encompasses all logistics processes.

Society 5.0 phrase was initially brought forward by the Japanese government in January 2016. Beyond the industrial and economic spheres, Society 5.0 foresees extensive usage of current industry technologies. The current supply chain must

advance, and supply chain 5.0 requires increased cooperation between humans and robots to realize Society 5.0 ideals. The major goal of using robots is to concentrate more on the roles and tasks that are difficult and harmful for people.

Fintech will be taken into consideration as a significant financial sector development in Society 5.0. The sharing economy and technological advancements can be seen as driving forces behind fintech. The three major goals of fintech are to create a new, low-cost financial structure, raise the standard of service in the financial industry, and create a wide-ranging, secure financial environment. The good news is that financial start-ups can change the financial sector with innovations and personalized and tailored services thanks to the significant infrastructural development over the past ten years, as well as developing smartphone technology and rising investments in big data.

Currently, Fintech has moved past the hyper stage and established itself as a significant force in the financial industry. The aforementioned advantages set fintech apart from conventional financial organizations. Fintech also gives emerging financial sector businesses a competitive edge. Many financial institutions began to take the Fintech start-ups seriously, and they started using new tactics and plans to compete with them.

The human component has a strong beneficial influence and effect on fintech, according to numerous studies. This implies that the employees of financial organizations must be dependable and competent. These employees will show off their knowledge of scientific computing while offering services that are specific to the wants and demands of their customers. The findings of this study imply that the use of Fintech in SMEs does not appear to be supported by the current legal and governmental frameworks. To attain Society 5.0, these elements must be upgraded.

In earlier works, academics sought to define the term "Society 5.0" broadly. In this study, I want to define the term "Society 5.0" specifically. I will also describe how Society 5.0 affects the supply chain. The primary advantages and disadvantages of incorporating Society 5.0 into SCM procedures are also discussed. In previous papers, technical terms related to Society 5.0, such as IOS, as well as the difficulties of applying concepts akin to Industry 4.0 in diverse industries, were also covered in great detail. Additionally, prior studies looked at how Fintech (financial technology) affected small- and medium-sized businesses as well as how it related to Society 5.0 (Fornasiero & Zangiacomi, 2021).

3. Results and discussion

3.1 Creating a resilient supply chain using a Society 5.0 approach

Society 5.0 has a significant overlap between real space and cyberspace. In today's information culture, individuals employed cyberspace cloud services (databases) over the Internet to look up, retrieve, and analyze data. As opposed to the traditional internet, the Society 5.0 Internet gathers enormous volumes of data from sensors in actual space. These enormous volumes of data are analyzed by artificial

intelligence (AI), and the outcomes are presented to people in various ways in real-world settings. So far, members of the information society have accessed and collected data via the Internet. In Society 5.0, everything is connected online, including people, objects, and systems. The best AI discoveries that are beyond human comprehension are then brought into the real world. This approach has significance for the sector and society in hitherto unimaginable ways.

Machine-to-machine connectivity, robotics integration, constant communication, cutting-edge drive technologies, and real-time tracking and tracing were prioritized in many studies. As a result, the resilient capability of the supply chain will be enabled by the effective implementation of Society 5.0. Industrial development enhances supply chain member trust through collaborative planning and decision-making, network visibility, and other factors that result in sustainability. The planning, execution, and control capabilities of each supply chain node are improved by this paradigm (Sindhwani, et al., 2022).

By successfully implementing resilient strategies, minimizing or eliminating barriers, and creating intelligent systems for production, distribution, and control, it can be said that the implementation of the Society 5.0 concept will enable the resilient capability of the supply chains. Given the capabilities of the Society 5.0 technologies, they can be roughly categorized into the following seven technologies, which are covered in the next section (Frederico, 2021):

Cloud Computing

By combining soft resources, it provides a flexible internal infrastructure alternative for real-time data management decision-making and successfully implements the Internet of Things (IoT). It was suggested that the business may use it to quickly make decisions, minimizing losses from potential disruptions. Big data analytics (BDA) facilitates real-time connectivity and traceability in the supply chain. To create a more effective supply, demand, and transportation strategy, it enables the speedy gathering, analysis, and interpretation of the data linked to risk, disruption, performance, etc.

Internet of Things

It is described as a group of physical systems connected by a network of digital platforms that enable them to communicate with one another beyond organizational boundaries and have improved human-machine interaction and communication. Because of the development of protocols for diverse devices and the accuracy of forecasts, data analytics enhances the supply chain's data capabilities. Radio frequency identifiers (RFID), microphones, wireless sensors, a global positioning system (GPS), barcodes, and other technologies are among the IoT's components, tools, or technologies. These enable close connectivity and data collection among the numerous systems participating in the supply chain. It enables the supply chain process to be tracked, and the information gathered in this way can be used as input parameters for artificial intelligence and cyber-physical systems.

Big Data Analytics

It is the process that combines data (structured or unstructured) from many sources to extract the knowledge that may be used to make decisions. It aids in managing the interaction between customers and suppliers, inventory management, consumer behavior knowledge, and product traceability. Through simulation methods, it also enables the development of digital supply chain twins and the risk prediction, planning, adoption, and effective execution of disruptive strategies. This results in the identification and evaluation of the opportunities and risk-reduction techniques that are accessible.

Artificial Intelligence

It is a broad technological idea that permits the development of processes and adaptive decision-making based on historical data. It combines machine learning, mathematical and agent-based modeling, and a network-based strategy to support autonomous decision-making in challenging situations and novel or uncharted business environments.

Cyber-Physical Systems

The physical infrastructure is integrated into the system that can manage and communicate the activities and information connected to the supply chain via the technical element of management. It allows processes to be automated while enhancing monitoring and control. Robots and autonomous vehicles are essential components of cyber-physical systems that not only carry out human tasks but also reduce the possibility of human error. As an illustration, an automated system was employed during COVID-19 to find and transport the testing samples.

Additive Manufacturing

It is the inverse of the conventional machining process, in which material is removed from the solid block rather than added to the product in layers. The most practical use of additive manufacturing, which permits the fabrication of parts, components, modules, etc., is 3D printing. Additionally, it reduces material waste and enhances the manufacturing systems' responsiveness.

Blockchain

It is a technological advancement that decentralizes supply chain systems and creates open, encrypted peer-to-peer networks; it was first applied in financial engineering. The information ledger that creates, stores, and allows access to information in the form of digital blocks are joined by the members of this supply chain. Enhancing visibility, communication, and coordination, improves confidence among participants in the supply chain. It keeps track of all transactions, verifies them, and determines risks, vulnerabilities, and available mitigating tactics (Bălășoiu, 2022).

Augmented Reality, Virtual Reality, and Mixed Reality (MR)

Real-time interaction between the physical and virtual systems is made possible, and three-dimensional visuals are displayed. It boosts flexibility, increases control over the process, and fosters speedy learning. For instance, the usage of augmented reality (AR) headsets in the food and beverage SC gives supply chain managers access to all the information regarding the manufacturing process and the location of processing plants. Other augmented reality examples include video training and smart glasses. Similar to this, Society 5.0 incorporates the idea of virtual reality (VR), which uses simulation technology to simulate the sensation of being in a real place.

3.2 Benefits of adopting Society 5.0

Society 5.0 can be seen as a human-driven technological evolution that prioritizes economic growth and addresses social concerns like aging by leveraging IoT and iOS technologies. Supply chains are groups of networks and activities that include businesses and individuals to provide a good or service. Although these two ideas don't initially appear to be connected or interconnected, Society 5.0 can aid in supply chain coordination and information exchange, among other things. The many prospects of Society 5.0 in the supply chain spectrum will be revealed in the following few paragraphs.

Coordination

Whether it is the current inventory level, the location of the shipment on the road, or the location of the shipment in the warehouse, data, and information are essential components of the coordination in supply chains. IoT refers to linking several data points and is a technology that is part of Society 5.0. It is commonly utilized in supply chains to deliver streams of real-time data for better decision-making and quick responses to changing events. RFIDs, which track location in real-time and alert management of deviations in the direction in advance; storage condition sensors, which alert us to changes in environmental factors like temperature and humidity; or location tags, which reduce the time spent looking for specific items, are a few examples of IoT applications.

Labor saving

The automounts supply chain is a new idea in the industry; it combines standards, connectivity, and intelligence, and it can process orders, find the location of the item, and deliver the unit. All in all, this is an idea that reduces the amount of human input required for it to work properly. This idea has a significant impact on the human factor because it can lessen the workload for manual labor, save time by eliminating monotonous, non-value-adding tasks, reduce overhead, increase agility with free-flowing information that helps the supply chain team deal with quick changes, and also reduce errors that are inevitably caused by people in processes and tasks.

Social contributions

Supply chains involve a variety of transportation methods, including cargo planes, big trucks, and container ships, all of which consume a lot of fossil fuel and emit harmful greenhouse gases and emissions that trap heat in the atmosphere and contribute to environmental catastrophes like global warming. Society 5.0 encourages the adoption of next-generation vehicles like electric cars and ships powered by liquified natural gas, which may emit 45%–50% less fuel than coal and 30% less CO2 than oil, to fight such long-lasting negative consequences (Tavares et al., 2022).

3.3 The challenges of adopting Society 5.0

Although Society 5.0 is a relatively new thermology, numerous publications and research papers have been written about it in the past ten years. Terms like "Society 5.0" call for massive process re-engineering, corporate changes, and even a shift in people's lifestyles from the government, businesses, and locals. Building a long-term plan (during the next 15 to 20 years) is necessary for the government and corporate sector to implement the Society 5.0 language. Any county wishing to incorporate terms from Society 5.0 has several potential obstacles. Among others, but not exclusively:

Cyber Threats

Nevertheless, during the past ten years, cyber security has advanced. Parallel increases in cyber risks were observed, particularly over the past two years (during the COVID-19 epidemic). According to the concept of "society 5.0," we must utilize technology more frequently and integrate it into every aspect of our physical and social lives. The risk to our personal and collective safety will consequently rise. Furthermore, hackable autonomous vehicles, AI-run public transportation systems, drone fleets, smart grids, and connected medical gadgets would have a severe impact on public safety.

The USA, UK, France, South Korea, China, and Japan have experienced the most cyber threats and attacks. Nearly half of the cyberattacks targeted government-run services, including transportation and healthcare networks. Applying the entirety of Society 5.0 theory today will endanger national stability and public safety (Kimura, 2020). Fortunately, the majority of nations began to invest in and pay attention to computer and cyber security.

Infrastructure

Integration with the national infrastructure is necessary for the context of Society 5.0. High-speed broadband connections and universal mobility are key to Society 5.0. These technologies ask the local authority to redesign the network infrastructure. Additionally, to implement Society 5.0, many nations must upgrade their infrastructure with new networks, facilities, and rules. The Society 5.0 phrase

could be achieved throughout this century because of all of these types of investments and ideas.

Finally, the Society 5.0 terminology faces some additional difficulties, including material constraints, security issues, technical difficulties, and even practical difficulties. Large-scale projects like Society 5.0 necessitate both a long-term and short-term plan, in addition to human competencies and long-term investments from both the public and corporate sectors.

3.4 The usefulness of blockchain in supply chain management

A blockchain-enabled supply chain can assist participants in recording price, date, location, quality, certification, and other relevant details, allowing for more ethical supply chain management. The availability of this data within the blockchain can improve visibility and compliance over outsourced contract manufacturing, increase the traceability of the material supply chain, decrease losses from the gray market and counterfeit goods, and potentially strengthen an organization's position as a pioneer in responsible manufacturing (Manzoor, et al., 2022).

The importance of blockchain in the modern supply chain

Blockchain is implemented through the use of internet-based technology. It is well known for its capacity to create immutable, encrypted ledgers to verify, distribute, and record transactions. Blockchain enables digital cryptocurrencies like Bitcoin to run independently of a central bank and to support transactions. To create and share the ledger or record of each Bitcoin transaction, this technology enables thousands of computers to be connected to networks around the globe. Due to encrypted transactions and ledgers, blockchain technology offers greater security than the banking approach. With this technology, we may instantly transmit money from one account to another without having to wait for the time-consuming clearing process or pay any fees. Here, the transactions are connected to form "blocks" that are "immutable" and chronologically ordered.

The value of blockchain in current supply chains

Nowadays, the majority of supply chains do not use blockchain technology. However, blockchain technology has inspired several people to start pilot initiatives, including:

- Walmart tested a system that tracks pork in China and analyzes it in the US to confirm the transactions and preserve the accuracy and efficiency of the record.
- By focusing on cross-border and cross-party transactions, Maersk and IBM leverage blockchain technology to increase process efficiency.
- BHP examined a blockchain system to replace spreadsheets for tracking samples both internally and externally from a range of sources.
- Provenance, a UK startup, used $800,000 to adopt blockchain technology to trace food. The Southeast Asian tuna supply network served as its pilot.

In actuality, supply chains today have good data that can be communicated at real-time rates. The three areas where blockchain technology brings value are:

- It replaces labor-intensive manual operations that are slow and rely on paper in lower supply tiers, even if the current supply chain is capable of handling huge and complicated datasets. It is especially prevalent in the shipping sector.
- Traceability is improving as a result of increased consumer and regulatory demand for information provenance. By enhancing traceability, high-cost quality issues, recalls, and losses brought on by products sold on the black market can be reduced. By streamlining complex supply-based offers, value-creation opportunities can be provided.
- The benefit of lowering supply chain IT transaction costs is more speculative. Bitcoin validates each block by paying users, and if users want to propose a new block, they must include a fee in their request. Due to its potentially staggering scale, this expense may be unaffordable. Data storage, a crucial part of Blockchain's distributed-ledger architecture, will see a considerable increase in demand. Additionally, keeping more copies of a dataset won't be feasible in a supply chain setting, especially with permission-less blockchains (Difrancesco, et al., 2022).

3.4.1 Defining traits of blockchain

The blockchain makes it possible to effectively audit supply chain data, which can streamline administrative procedures and lower expenses.

Decentralized ledger

A distributed ledger is another name for a digital blockchain. Instead of keeping the data values traditionally, they use individualized computers to share, synchronize, and record transactions in their respective ledgers. Blockchain organizes data into blocks that are then collectively added in a mode referred to as appending. They serve as the foundation for peer-to-peer "value" transfer and link recording where a centrally coordinated body is not required. The term "value" refers to any past asset valuations or personal information.

Cryptography

A cryptography-related blockchain ledger that serves as a security key. Each transaction is recorded on the blockchain using encrypted data. Using the public and private keys that have been issued to them, every user can have access to their data and safely buy and trade cryptocurrency. A blockchain is a growing collection of documents, or blocks, that are linked from one to the next via encryption. Each block contains a timestamp, a cryptographic hash of the previous block, and the transaction data value.

Consensus

Consensus is an algorithm that makes decentralized databases more like centralized record-keeping. The existence of just one single valid copy of the shared record among all nodes is automatically verified. All parties must concur for a transaction to be valid, and they cannot make alterations or create new blocks without consensus. This indicates that all parties are aware of the modification and concur that every transaction in the chain is legitimate. Blockchain technology can be used to achieve consensus for a variety of transactions, including payment, warehouse management, delivery, and transportation, in the context of supply chain management for Society 5.0 (Bălășoiu, 2021).

Smart contracts

Using blockchain technology and smart contracts, a software program is utilized to carry out a digital agreement. Blockchain smart contracts and the supply chain can be linked to stopping fraudulent schemes. Programming is used to automatically trigger events related to basic supplies, such as payment and serial number mismatch. With the aid of blockchain technology and smart contracts, the conditions of a contract can be expressed, verified, and carried out. Blockchain enables a contract's agreements and transactions to be carried out independently of a legal framework or outside enforcement (Viriyasitavat & Hoonsopon, 2019).

3.4.2 Why is blockchain being used in supply chain management?

Traceability

In addition to tracking product origin and supply chain methods simultaneously, blockchain-based traceability can identify fraudulent transactions, which can streamline the current paper-based procedure. It may support condition control systems, reduce risk, and increase supply chain visibility, which are its three main benefits. Suppliers can respond quickly to any controversy by maintaining a record of the full production and distribution history. Supply chain management has actively advanced traceability. It is extensively used to lessen past problems, lessen damages, improve management obstacles, and verify quality management. However, it is essential to monitor laws and regulations that change over time and to ensure the data from manufacturing through the disposal of all components, which number in the tens of thousands. On the other hand, globalization is expanding, and in recent years, emphasis has been placed on delivery speed and cost rivalry. As a result, the significance of traceability continues to increase.

Transparency

Transparency is a major feature of the blockchain. Joining the network and viewing and following its results is beneficial. Users have the option to browse historical cryptocurrency transactions thanks to Blockchain's transparency. The supply chain can benefit from numerous forms of transparency and precision tracking thanks to blockchain. Organizations can digitize physical assets to track them from manufacture to delivery or end-user use, and they can also build a

decentralized fixed record of each contract. Companies must be aware of the upstream activities taking place in the supply chain and must share this information both internally and internationally. One reason why procedures have become more crucial is that more consumers are demanding them. Transparency in the supply chain enables suppliers to quickly obtain and process the data they want and then pass these time savings through to their customers. By choosing to be an available partner, suppliers can stand out, particularly in the competition, to qualify existing businesses and possibly even attract new clients.

Supply chain finances

Supply chain finance refers to technologically based solutions that improve business strategies for buyers and sellers working together in sales transactions while also aiming for reduced financing costs. Recently, blockchain technology and supply chain finance solutions have attracted a lot of attention. When these two are joined, the efficiency of processing invoices may be increased, and numerous secure and transparent transactions can be conducted. When the buyer has a better credit rating than the seller and can therefore obtain financing from other lenders or banks at a lower cost, supply chain finance works well. This benefit enables buyers to negotiate better terms with the seller, which facilitates longer payment terms. The vendor can unload its products more quickly to receive prompt payment from the intermediary finance entity. Reverse factoring, or supply chain finance, as it is sometimes referred to, improves cooperation between buyers and sellers (Zhou, et al., 2022).

4. Conclusion

It is clear from the discussion above that a supply chain's performance greatly depends on its capacity to deal with vulnerabilities and interruptions. Furthermore, various intrinsic and economic activities connected to the supply chain make it difficult to deploy resilient capabilities successfully. Furthermore, the Society 5.0 idea is widely used to support sustainable growth and increased efficiency.

Blockchain enables us to lessen the problems that the supply chain faces, and it considerably facilitates payments and supply chain participant transparency for Society 5.0. A large number of stakeholders and components make up the supply chain, which is a complicated system. This study demonstrates how to achieve supply chain finance, traceability, and transparency. Additionally, important blockchain features can reduce the need for expensive storage and delays. It can improve processes and automate transactions. Blockchain-based supply chain challenges and advantages for Society 5.0 enable us to better comprehend the subject matter. Many companies have made progress toward the implementation of a supply chain that is supported by blockchain, and some of the outcomes have been reliable.

Everyone's quality of life will significantly improve with the advent of Society 5.0. Large improvements, as is well known, necessitate big adjustments and a lot of work from local businesses, governments, and multinational corporations.

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