

FIN 6150 Module 2

By

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- **Introduction**

The importance of decentralization in all industries cannot be overemphasized because it ensures accountability, transparency, efficiency, and security (Amazon, 2023).

There are six different types of decentralization, which are: Business, physical, transactional, political, architectural, logical, and political (Team, 2022). The main purposes of blockchain technology is to remove third party interaction and decentralize business processes.

- **Case Study 1 - Blockchain Technology to Improve Aerospace Supply Chains**

The research focuses on use cases in the aerospace industry

The case study explores the importance of blockchain in the aerospace industry. It examines the importance of the blockchain for driving efficiency in the elaborate supply chain world, ensuring accuracy, security, and removing waste, and compares it to the traditional system of operation, i.e decentralization.

How Blockchain is used

- Blockchain is used in various forms in the aerospace industry, such as but not limited to a decentralised ledger system, smart contracts, and peer to peer transactions
- Business decentralization is used in this case study
- Peer to peer transactions is the transactions being used in this case study, which do not require the involvement of a central authority.

- **Case Study 2 - Blockchain Technology to secure renewable energy use**

The research focuses on use cases in the renewable energy industry

The case study explores the importance of blockchain in the renewable energy industry. It examines the importance of the blockchain for driving transparency and accountability in the elaborate renewable energy world by ensuring that energy consumed is well accounted for, publish gas emission inventory, sign smart contracts and enforce user authenticity and system transparency.

Blockchain is used in various forms in the renewable energy industry to ensure energy consumption is well accounted for, publish gas emission inventories, sign smart contracts, and enforce user authenticity and system transparency.

Transactional decentralization is used in this case study

Renewable energy credit (REC) is the transaction being used in this case study, which do not require the involvement of a central authority.

- **Case Study 3 - Blockchain Technology to solve health care security problem**

The research focuses on use cases in the health care industry

The case study explores the importance of blockchain in the healthcare industry. It examines the importance of the blockchain for real time clearing and settlement of data. It encourages cross border payments, and regulatory compliance, save cost on data breaches, information technology, operations, support functions, personnel, counterfeiting and insurance fraud

Blockchain is used in various forms in the health care industry to facilitate real time clearing and settlement of data, receive cross border payments, support functions, personnel, counterfeiting, and protect against insurance fraud.

Political decentralization is used in this case study

Electronic medical record system is the transaction being used in this case study, which do not require the involvement of a central authority.

- **Conclusion**

Case study 1 uses peer to peer transactions, which is a business decentralization model

Case study 2 uses Renewable energy credits (REC) which is a transactional decentralization model

Case study 3 uses Electronics Medical Records Systems which is a political decentralization model

Despite the different transaction types and decentralization model, none of these case studies involve a central authority i.e the model systems are decentralized, which helps them achieve efficiency, accountability, security and transparency.

## References

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