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HOW BLOCKCHAIN TECHNOLOGY COULD IMPROVE THE SUPPLY CHAIN INDUSTRY

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Morai Logistics Inc. is a 3rd party logistics provider with an operating agency agreement representing Mode Transportation. We are a powerhouse logistics team based in the Greater Toronto Area and do business throughout North America, including Mexico. Our team is dedicated to our terrific clients and we strive to take the chaos out of your supply chain. We are always on the lookout to do exceptional work with remarkable people and companies!

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RESEARCH SHOWS BLOCKCHAIN TECHNOLOGY COULD IMPROVE THE SUPPLY CHAIN INDUSTRY

As consumer demands for efficiency and immediacy continue to rise, the supply chain industry is seeking out innovative technologies to meet these growing demands.

Canada Business Network provides recommendations to optimize the supply chain management processes of any business size. They advise companies to:

INVEST IN TECHNOLOGY THAT WILL QUICKLY TRANSFER YOUR REQUIREMENTS TO SUPPLIERS AND IMPROVE YOUR TIME TO MARKET

The development of improved measures is usually in response to current setbacks or issues within existing supply chain management systems. Research on the challenges facing supply chain and logistics revealed that transparency and visibility are at the top.

The Financial Times defines supply chain transparency as:

> # THE EXTENT TO WHICH INFORMATION ABOUT THE COMPANIES, SUPPLIERS AND SOURCING LOCATIONS IS READILY AVAILABLE TO END-USERS AND OTHER COMPANIES IN THE SUPPLY CHAIN

With the origin of products becoming of interest to consumers, the ability for supply chains to guarantee visibility is an important component to their management systems.

In this e-book, the emergence of online currencies and ledgers will be explored, with specific attention to Blockchain. This beneficial platform is making headlines as a potential benefit for the logistics and supply chain industry.
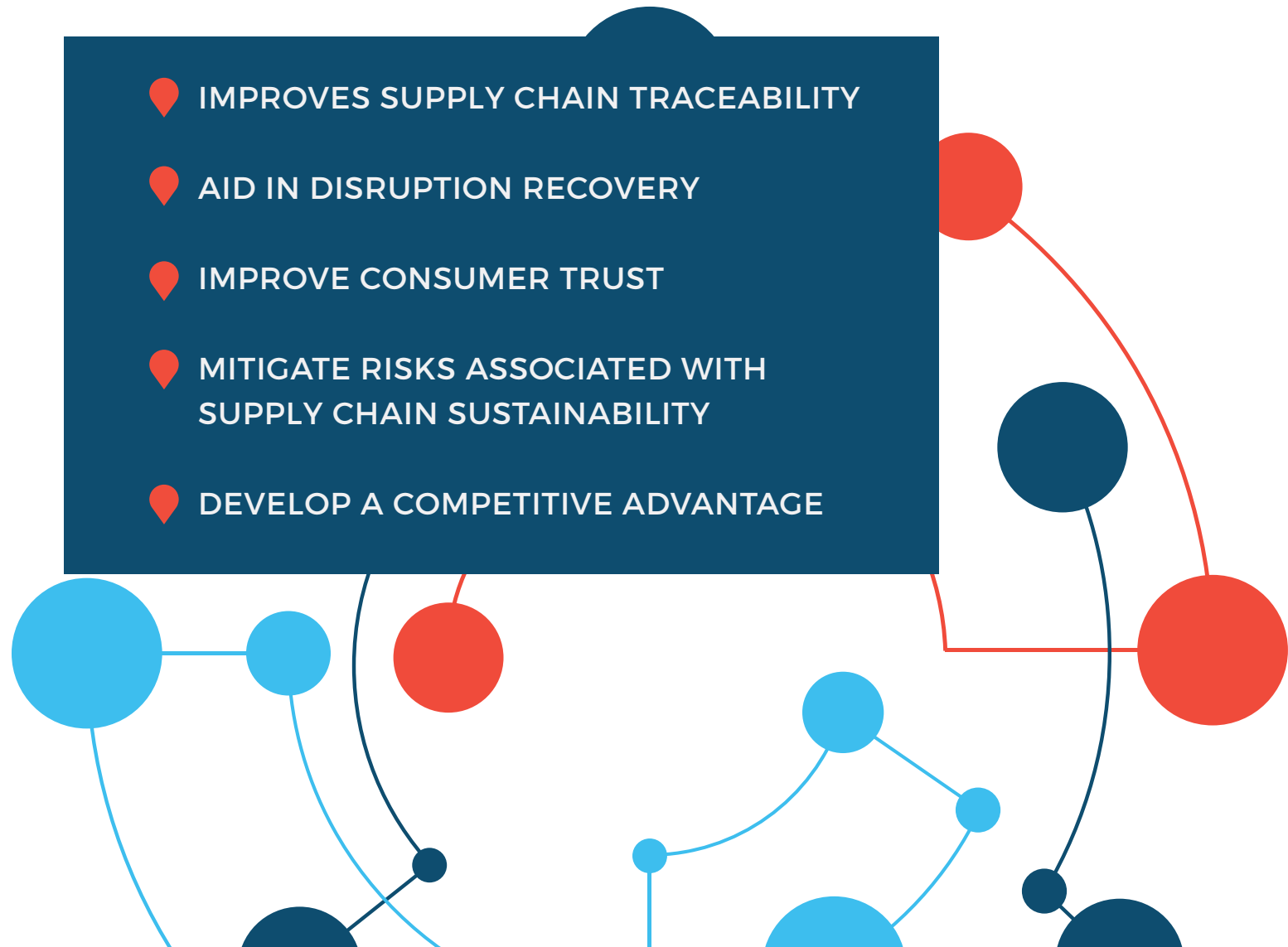
TRANSPARENCY

There is a growing need to improve the transparency and visibility in supply chain management. **Research** on transparency best practices indicates that negative brand perception may occur if a company cannot provide information to the consumer about their products. This specifically relates to how products are made, where they come from and how they're shipped.
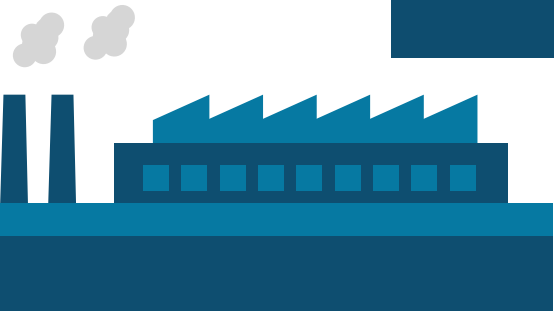
Providing transparency to customers helps a brand gain credibility within their markets, especially when corporate social responsibility is a top priority. SupplyChain247 outlines the following outcomes of transparency in the supply chain industry:

IMPROVES SUPPLY CHAIN TRACEABILITY

AID IN DISRUPTION RECOVERY

IMPROVE CONSUMER TRUST

MITIGATE RISKS ASSOCIATED WITH SUPPLY CHAIN SUSTAINABILITY

DEVELOP A COMPETITIVE ADVANTAGE

The implementation of technology has been shown to improve supply chain visibility. According to **Supply Chain Management Review**, statistics show that technology:

- CUTS TRANSPORTATION COSTS BY 63%

- IMPROVES BUSINESS PROCESSES BY 32%

- IMPROVES CUSTOMER SERVICE BY 31%

- INCREASES SUPPLY CHAIN VISIBILITY BY 22%

BLOCKCHAIN

With their slogan "The World is Now Open for Business", Blockchain is making headlines as a revolutionary platform that makes financial processes easy and instant. Industries of the world continue to study its usage and benefits. Their website provides an exceptional explanation as to how this software was created and its purpose.

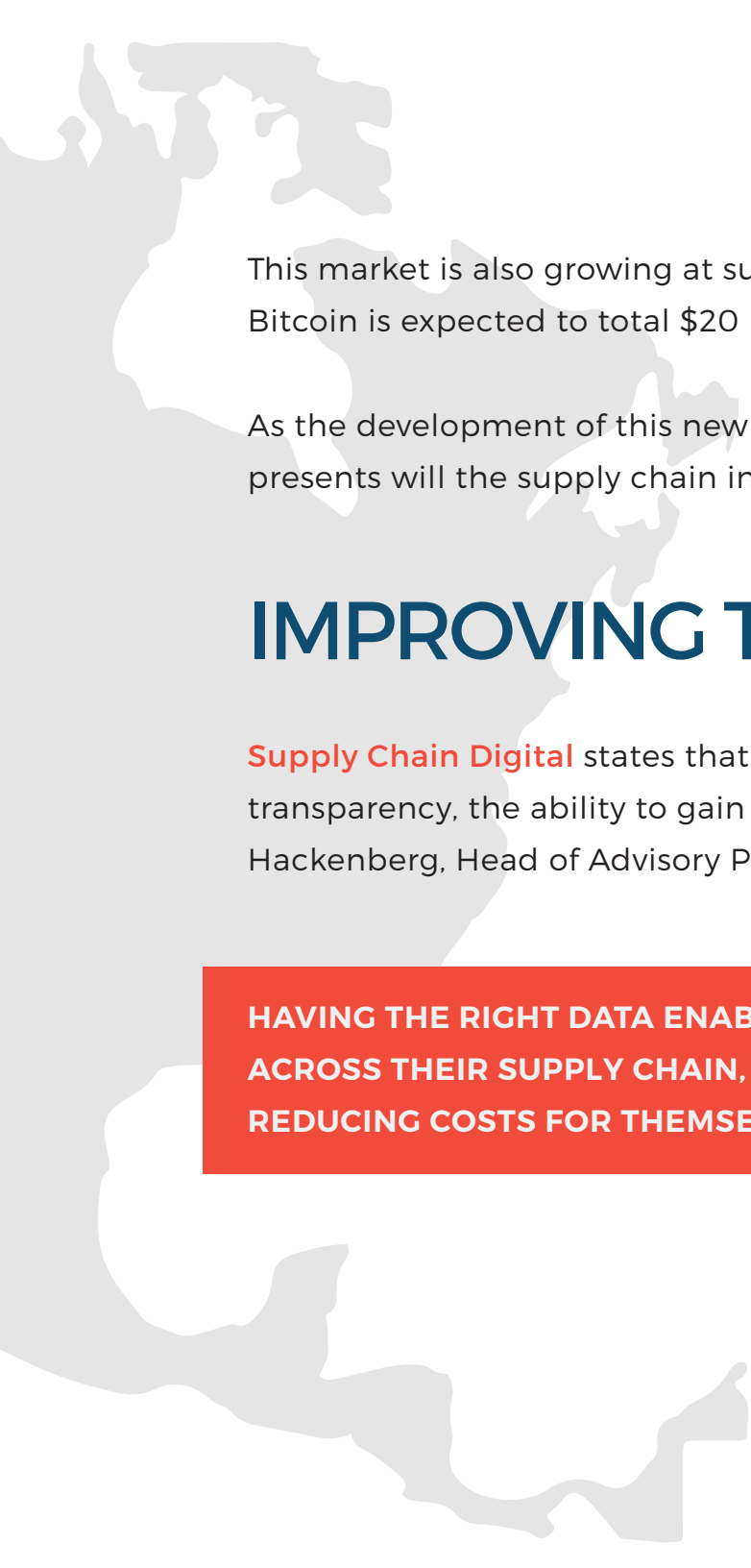> " A BLOCKCHAIN IS A TYPE OF DISTRIBUTED LEDGER, COMPRISED OF UNCHANGEABLE, DIGITALLY RECORDED DATA IN PACKAGES CALLED BLOCKS. EACH BLOCK IS THEN 'CHAINED' TO THE NEXT BLOCK, USING A CRYPTOGRAPHIC SIGNATURE. THIS ALLOWS BLOCK CHAINS TO BE USED LIKE A LEDGER, WHICH CAN BE SHARED AND ACCESSED BY ANYONE WITH THE APPROPRIATE PERMISSIONS. "

This platform is reported to reach $7.74 billion by 2024. While many industries have adopted this technology, it's commonly known as the technology behind an emerging cryptocurrency known as Bitcoin.

This market is also growing at such an unprecedented rate that by the same time, Bitcoin is expected to total $20 billion.

As the development of this new technology continues to progress, the benefits it presents will the supply chain industry is attracting many companies.

IMPROVING THE SUPPLY CHAIN

Supply Chain Digital states that for companies to address the issue of transparency, the ability to gain insight from large sets of data is key. Jonquil Hackenberg, Head of Advisory Practice, Infosys Consulting says:

HAVING THE RIGHT DATA ENABLES ORGANISATIONS TO MAXIMISE EFFICIENCY ACROSS THEIR SUPPLY CHAIN, BOOSTING PROFITS, SPEEDING DELIVERY, AND REDUCING COSTS FOR THEMSELVES AND THEIR CUSTOMERS

According to **Investopedia**, blockchain, also known as a distributed ledger technology (DLT), can benefit companies in three significant ways:

📍 LESS MATERIALS MEANS CHEAPER MAINTENANCE, IN ADDITION TO REDUCTION IN EMPLOYMENT COST.

📍 LESS ERRORS OR 'REPETITIVE CONFIRMATION STEPS'.

📍 LESS DELAY IN TRANSACTIONS

In addition, **Business Insider** also indicates that blockchain will help supply chains specifically with the dynamic intricacies of transporting and tracking goods.

Once a transaction is logged, all relevant information about the supply chain will be available in the ledger. This level of transparency will improve efficiency as information will be accessible to both suppliers and end users.

BLOCKCHAIN TODAY

The prevalence of blockchain is becoming consistent in the world of supply chain and logistics. On November 14th, 2017, Freight Waves announced that supply chain technology, Transfix, partnered with the Blockchain in Trucking Alliance (BITA). Their merger is a reflection of a strategic initiative that goes beyond meeting cost-effective demands.

"As the supply chain industry continues to get digitized, innovations such as blockchain can offer security for shippers, carriers, 3PL's and others," says Jonathan Salama, CTO and co-founder of Transfix.

According to BITA, their intention is to become the 'lead blockchain voice' by collaborating with the industry and promoting this technology.

Supply Chain Digital states that Marin Transport International (MTI) also believes blockchain will have significant results. As a result of a pilot program, they found that blockchain helps 'link the various actors in the supply chain'. They also found that cyberattacks are less likely to occur in a blockchain-enabled supply chain.
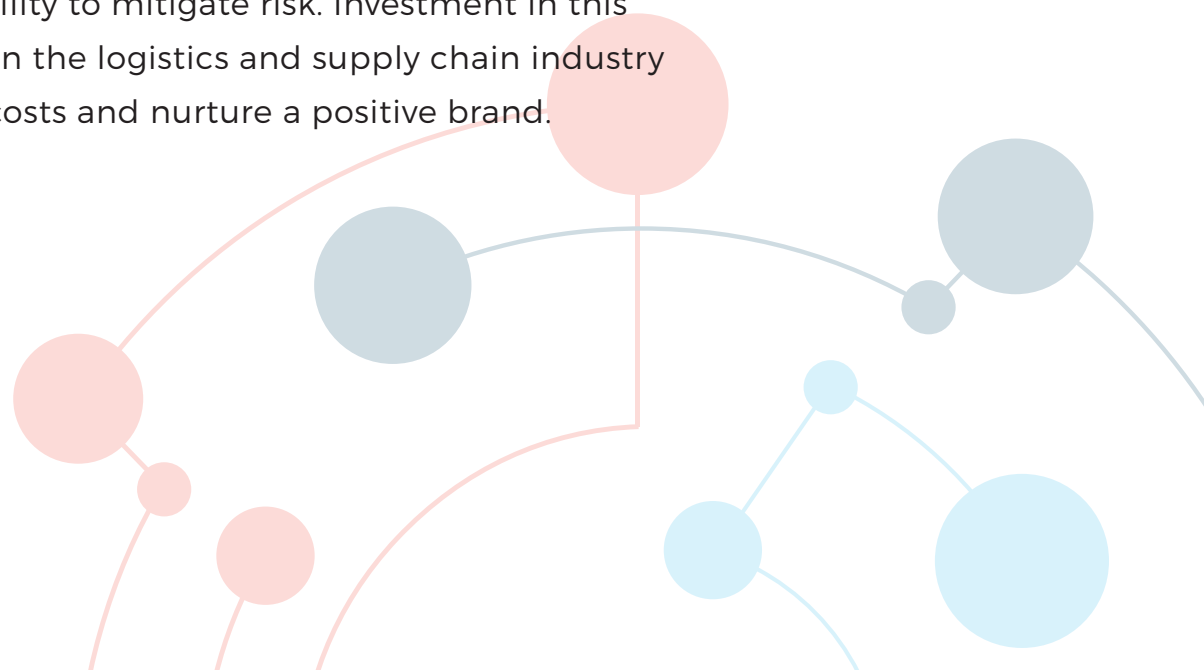
ANY TYPE OF SUPPLY CHAIN BUSINESS, BE IT MARINE-, AIR-, OR LAND-BASED, CAN TAKE ADVANTAGE OF SUCH A SYSTEM - THE COST SAVINGS THAT WE ENVISAGE ARE AS HIGH AS 90%, AS A RESULT OF SUBSTANTIALLY STREAMLINED PROCESSES.

- Jody Cleworth, CEO of Marine Transport International.

Based on these industry applications, blockchain proves to be a possible solution to the transparency issue facing current supply chain management programs.

By creating a secure system that includes all moving parts in a supply chain transaction, companies will have the ability to mitigate risk. Investment in this technology could help companies within the logistics and supply chain industry improve customer satisfaction, reduce costs and nurture a positive brand.

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