WHY TRUST MATTERS IN SUPPLY CHAINS

By Justin Goldston

Wilson Center

SUPPLY CHAIN INITIATIVE
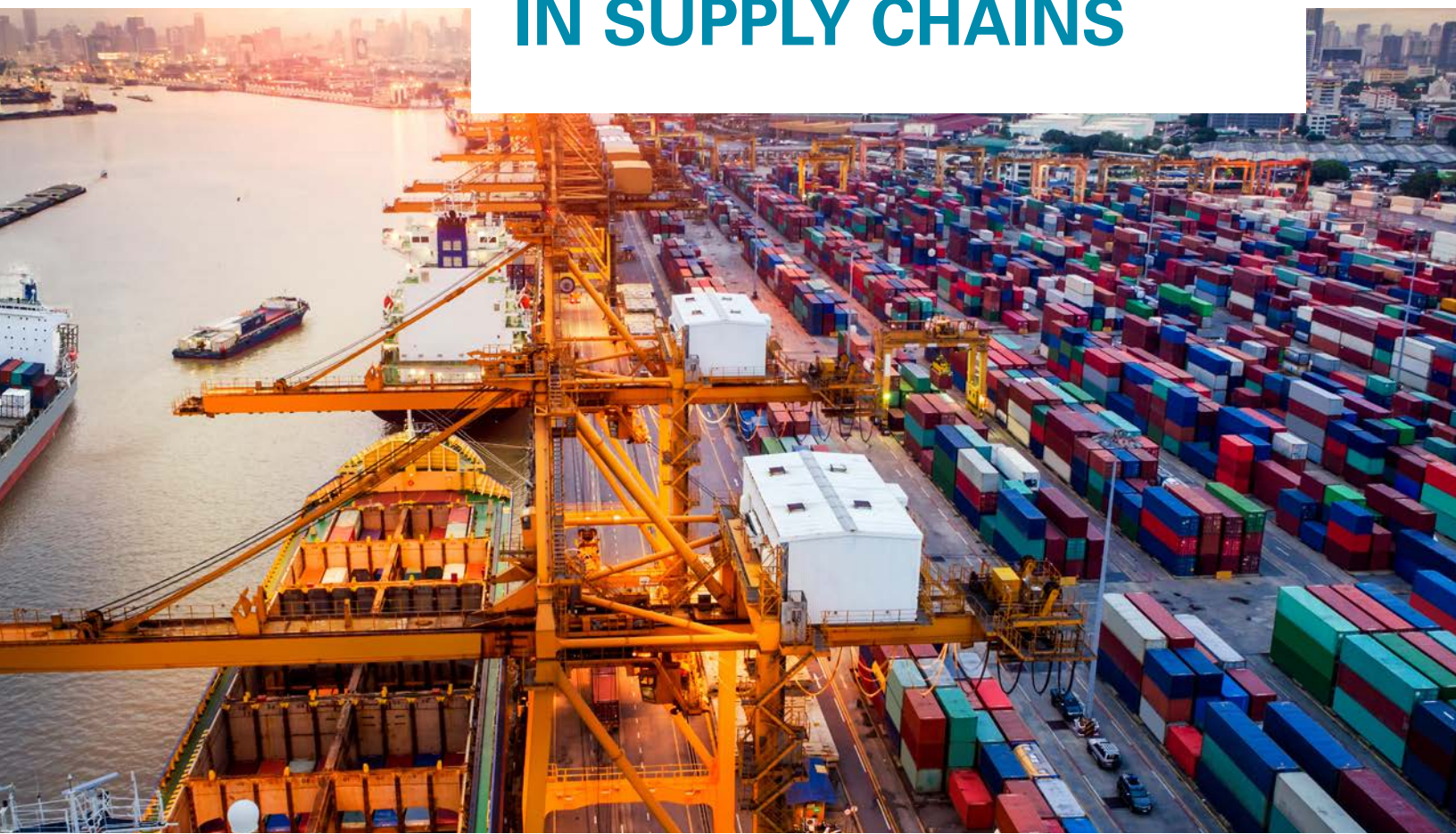
The Current State of Global Supply Chain Management

Recent disruption to global supply chains due to pandemics, interstate conflicts, logistical shortcomings and labor disputes have hit both businesses and governments hard, forcing policy-makers and corporate executives to focus on the need for resilience and security. As companies have become increasingly reliant on suppliers worldwide to provide the goods and services they need to operate in a globalized economy, this reliance has complexified supply chains, making them more challenging to manage and increasingly vulnerable to disruptions. One of the biggest challenges in managing supply chains is ensuring trustworthiness, particularly because of the increasingly interconnected and interdependent relationship in the globalized economy. From raw materials to end-use products, when one company in a supply chain breaks its promises or fails to deliver on its commitments, it can have a ripple effect that impacts the other companies throughout the network.

Why Trust Matters

Trust is essential for the smooth functioning of supply chains. Businesses need to trust that their suppliers will provide quality products and services, while investors must trust that businesses responsibly manage their supply chains. Governments need to trust that businesses comply with regulations and adhere to best practices, and that essential supply chains are consistent with global geopolitical imperatives. Investors are increasingly concerned with the environmental, social and governance (ESG) standards along the supply chain. Transparency is a foundational element of trust in supply chains but can be challenging to promote as businesses may be reluctant to share information with their suppliers for fear of losing their competitive advantage and governments may be skeptical of businesses' commitment to compliance and best practices.

Trust in supply chains, therefore, is comprised of several elements:

- Trust in security and timeliness of supply (protection against disruptions)

- Trust in the production process (ESG concerns)

- Trust in the national security and geopolitical implications of supply chains

One way to mitigate trust challenges is to diversify business partners throughout the supply chain. This means sourcing goods from multiple suppliers or countries instead of relying on a single source. Diversifying one's supply chain can help reduce the risk of disruptions and can also provide a buffer against price fluctuations. While there are caveats to this approach, as we experienced with the Covid-19 pandemic, spreading and sharing supply chain risk will be important to resilience as we move into a post-pandemic world.

For corporations and organizations dealing with suppliers and customers in developing countries, where there is a greater risk of corruption, the element of trust becomes increasingly important to avoid financial

exploitation. For example, if a company suspects that its supplier is overcharging them or engaging in other unethical practices, it may stop doing business with that supplier.

The third reason is that businesses need to be able to trust that their business partners will not disrupt the supply chain. If a supplier stops shipping products or goes out of business, it can cause severe disruptions for the other companies in the supply chain. This can lead to lost profits and even layoffs. On the customer side, if the two entities come to an agreement that data will be shared among both parties, information such as point-of-sale data should be sent in a timely fashion in order to achieve effective and efficient supply chain optimization.

> **Diversifying one's supply chain can help reduce the risk of disruptions…**

While the reasons mentioned above are not all-encompassing across all businesses, industries, or geographical regions, the examples previously mentioned help us to begin the thought process of how trust is important to any given supply chain network.

Trust Challenges in the United States

There are multiple trust challenges in America's supply chains. These include geopolitical factors, environmental concerns, human rights issues, and labor practices. All of these can have a major impact on the reliability and security of our supply chains. For example, the current geopolitical situation is creating a lot of uncertainty and speculation among American businesses with continued sanctions imposed by United States on Russia over the Ukraine invasion. While this is the most recent example, many global geopolitical concerns impact many American companies in a variety of industries. The most enduring of these is great power competition with China, and the increasing focus on decoupling, reshoring, near-shoring and ally-shoring.

Environmental concerns are another major issue for businesses. With the increasing prevalence of natural disasters making it more difficult for companies to ensure the reliability of their supply chains, sustainability and circularity have been topics of discussion for many leading organizations. As the Biden-Harris Administration looks to bring more green, sustainable jobs - namely within the manufacturing sector - to the United States with the Build Back Better Act, this could be the first step of many in addressing global environmental concerns and climate change. Investors' concerns over the "greening" of the value chain are also highly prevalent, with an increasingly detailed focus on the energy and environmental implications of the production process and value chain.

Finally, labor practices are also a major issue in the supply chain industry. There have been several high-profile cases of workers being mistreated in US supply chains, including reports of forced labor in the seafood industry and child labor in the cocoa industry. In addition, workers in the some industries (such as textiles and mining) often work long hours for low wages, which can lead to poor working conditions and even human rights abuses. These cases have led to increased scrutiny of labor practices in supply chains and have raised concerns about the safety of goods that are produced using these practices.

These trust challenges can have a major impact on American businesses and our economy, and businesses must consider them when developing and reviewing their supply chain networks. Companies must carefully consider all the scenarios in sourcing products within the United States and abroad to mitigate risk. They need to clearly understand these risks and find ways to minimize or eliminate them to ensure that their supply chains are efficient, compliant, and sustainable.

Security Concerns Throughout Supply Chain Networks

Another component of trust among business partners is ensuring supply chain data is secure. One of the most important things to keep in mind when it comes to supply chain security is that it is a shared

> *In recent years, there have been a number of high-profile cases involving security breaches in supply chains.*

responsibility. In recent years, there have been a number of high-profile cases involving security breaches in supply chains. These breaches have resulted in the loss or theft of sensitive data or information, and it is important for companies to be aware of the potential security risks associated with their supply chains.

All parties in the supply chain need to be aware of the potential risks and take steps to protect against them. When it comes to protecting a company against security breaches, there are a few key steps that can be taken:

- Perform a risk assessment of the supply chain in order to identify any potential weak points that could be exploited by attackers.

- Put security controls in place to protect the supply chain. This may include measures such as encrypting data in transit, implementing access control measures, and securing physical assets.

- Develop and implement a security policy for the supply chain. This policy should address the risks identified in the risk assessment and outline the security controls that have been put in place to mitigate those risks.

- Employees must be adequately trained on supply chain security. This will help ensure that everyone understands the importance of security and knows how to identify and report potential risks.

- Periodic reviews of the supply chain security posture are needed to ensure that controls are effective. Companies must be prepared to respond quickly and effectively to any security incidents that may occur.

Taking these steps can help protect supply chains against security breaches. However, it is important to remember that no security measure is 100% effective. As such, companies should always be prepared to deal with the fallout from a breach if one does occur.

Environmental, Health and Safety Issues in Global Supply Chains

In March of 2022, the Securities and Exchange Commission (SEC) proposed rules to enhance and standardize climate-related disclosures for investors. As this addresses the standardization for reporting the environmental topics discussed among organizations for decades, some feel there is still a gap in addressing the social component of Environmental, Social and Governance (ESG) standards. Health and safety risks can have a significant impact on businesses, both in terms of the potential for accidents or incidents, and in terms of the costs associated with managing these risks. It is therefore essential that companies have effective systems and processes in place to identify and manage these risks.

There are a number of ways in which companies can address health and safety risks in their supply chains:

1. Assessing and managing risks. Companies should identify the potential health and safety risks associated with their supply chains and put in place systems and processes to manage these risks. This may involve carrying out audits of suppliers or setting up procedures for dealing with incidents or accidents.

2. Ensuring compliance with regulations. Companies should ensure that their suppliers comply with all relevant health and safety regulations. This may involve checking that suppliers have appropriate licenses and permits, and that they are following safe working practices.

3. Communicating with stakeholders. Companies should keep their stakeholders informed of any health and safety risks associated with their supply chains. This will help to ensure that everyone is aware of the potential risks and can take steps to mitigate them.

It is important that companies take these issues into account when managing their supply chains. They should ensure that their suppliers are operating in a safe and responsible manner, and that any risks are identified and managed effectively. Whether news could be released internally or externally, trust could potentially be lost in an instant if concerns regarding employee welfare were to be released about an organization.

Tools to Address Supply Chain Issues

In an effort to address the issues previously mentioned, leaders of organizations are rethinking their supply chain strategies. As ESG factors continue to become increasingly important to consumers, regulators, and investors, the supply chain practice provides the foundation for organizations to achieve their ESG initiatives. Given that increased transparency and accountability will be critical components of demonstrating strategic initiatives, technology will be one of the primary tools to address some of these requirements.

While a number of global organizations provide ESG reports, The Center for Audit Quality (CAQ) issued a report noting that, although 95% of S&P 500 companies in the United States made their detailed ESG information publicly available, only 6 percent received assurance on the data from public company audit firms. Yes, we can assume that this data is trustworthy, ethical, and accurate, but why can't we require ESG reporting with the same level of compliance as financial reporting? Some would say it is just as important.

…blockchain technology could provide an auditable, transparent, tamper-proof record of transactions

If investors, consumers, and regulators require proof that organizations are operating ethical, trustworthy supply chains, blockchain technology could provide an auditable, transparent, tamper-proof record of transactions - or an ESG audit trail - that all stakeholders can access. Blockchain is a distributed database that allows for secure, transparent recording of transactions that can be used for increasing trust and transparency in supply chains. This makes blockchain an ideal solution for tracking goods and ensuring that all participants in the supply chain are aligned with the latest information. This video provides a number of use cases for blockchain within the supply chain industry.

In addition to blockchain, other tools and platforms are emerging to help companies identify and assess risk in their supply chains. Artificial intelligence (AI) can be used to analyze data and identify patterns that could help to improve the efficiency of supply chains. For example, AI is currently being used in demand sensing - an approach that leverages AI, machine learning (ML), and real-time data to reduce forecast errors based on the current realities of the supply chain and to predict demand for certain products and adjust an organization's production schedule accordingly.

Artificial intelligence (AI) can be used to analyze data and identify patterns that could help to improve the efficiency of supply chains.

5G is another technology that will play a role in increasing trust and transparency across supply chain networks. 5G is the next generation of mobile networks and it offers faster speeds, lower latency, and higher bandwidth than previous generations of mobile networks. This makes 5G well-suited for applications that require real-time communication as various devices will be interconnected into what can be viewed as the age of advanced manufacturing and Integrated Intelligent Automation.

In addition to the technologies mentioned above, researchers have also discussed how edge computing and quantum computing may significantly impact the supply chain practice. In their study, Dolgui, Koh, and Sarkis identified how efficiency, governance, ethics, in addition to trust could aid in addressing supply chain challenges. However, it is also important to note that based on the research presented, it was found that the supply chain industry is relatively conservative and proceeds with caution when it comes to new technologies that require a considerable upfront investment, irrespective of the promises of efficiency and cost savings.

Although there are varying views regarding the inclusion of emerging technologies in supply chain practice, all of these technologies have the potential to offer solutions to the trust and transparency issues that can plague global supply chains. If effectively implemented, these technologies could aid leaders in day-to-day and

strategic decision-making, and provide the ability to verify the authenticity of goods and track their movement throughout supply chain networks. This can help improve the reliability of supply chains and increase confidence that products are being produced in ethical, sustainable ways.

Takeaways

Supply chains are complex and dynamic systems that involve the coordination of business networks. As a result, leaders of organizations must perform upstream and downstream knowledge-sharing, and foster clear, concise communication among their business partners. This approach not only enables alignment throughout the organization's network, but it also increases the trust between centralized leadership and the decentralized nodes of the network.

Within the leadership research practice where scholars will review practitioner's approaches in successfully running organizations, Scandura and Pellegrini conducted a study on leader-member exchange (LMX) within organizations and found that LMX involves high levels of interpersonal trust. This approach is transferrable across an organization's supply chain network as well. If leaders implement LMX internally and externally, trust will increase due to a strong and effective bond among employees and business partners, discouraging the traditional hierarchical relationship, leading to mutual growth and stability.

> **The sharing of information, data, and business strategies could be optimized with technology, which distributes power across supply chain networks.**

Given that members of supply chain networks experience power imbalances, trust can be increased through power sharing. Power sharing between leaders of organizations can bring key outcomes throughout a supply chain network, such as higher member satisfaction and commitment. The sharing of information, data, and business strategies could be optimized with technology, which distributes power across supply chain networks.

In closing, there is no magic bullet to creating effective and efficient supply chain networks, but to understand the appropriate approach, it all comes down to education. By understanding an organization's business transformation maturity when it comes to organizational change, business partner relationships, or technology, collaboration is critical among all stakeholders. Each company's supply chain network is different. However, by reviewing the topics described in this article and in identifying how they are aligned with any given supply chain network, trust and resilience will be improved at the same time as geopolitical, ethical and competitiveness concerns are addressed.

About The Author

Justin Goldston has led and assisted in the development of Supply Chain Management, Sustainability, and Business Analytics programs and courses at Georgetown University, Texas A&M University, the University of Southern California. He serves on Advisory Boards at various higher education institutions, at the International Supply Chain Education Alliance, as well as on the Sensing subcommittee at the Association of Supply Chain Management. Goldston is also the author of multiple peer-reviewed journal articles on supply chain management, sustainability, and innovative technologies, and is a five-time TEDx speaker where he discussed emerging technologies such as blockchain and Artificial Intelligence.