AI, BLOCKCHAIN, MACHINE LEARNING:

Is Your Data Ready?

TransportationInsight®

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And are you asking the right stupid questions to make sure it is?

Prepare your supply chain data for artificial intelligence, blockchain, machine learning and emerging technology applications.

Data is the new oil – it is becoming more essential than ever before. Technological leaps like blockchain, artificial intelligence and machine learning run on data. They're already beginning to transform supply chain operations across many sectors.

Is your supply chain organization prepared to adopt these emerging technologies and generate the operational improvements to deliver the anticipated ROI?

As we're seeing, digital technology in supply chain enables end-to-end decision-making, visibility into supply-demand information across the network and supports the operational level response in plants, DCs and retail stores.

Many organizations have challenges based on legacy processes and systems, possibly decades old, which could significantly hinder the implementation of new data-driven technologies. In fact, industry experts estimate that 35 to 40 percent of all data in supply chain systems is faulty.

Many organizations operate today with data that is stored in silos, incompatibly formatted, difficult to access and hard to analyze in a comprehensive fashion. To overcome these barriers, it can be productive to engage a third party to find out why things are the way they are, and what can be done about it.

Sometimes it takes an outsider to ask the obvious questions about processes that employees no longer question. For example, why do you use 106-inch-high pallets? Why do you handle inbound products four times instead of two? Why do you use so many manual inputs and bypass your technology? Why did you want to place your new assembly line far from your customer base? Was it a decision based on space? The usual answer is, we've always done it that way.

One of the main benefits of sharing data with a third party is an objective perspective that can cut through the culture and the "We've always done it that way" syndrome.

Data collection, validation, management and analysis are fundamental to advancing digital supply chain optimization strategies. Even for organizations with internal capabilities, an independent partner with broad industry expertise, technology-enabled tools and an unbiased lens provides actionable support.

After a few decades of digital transformation, many organizations still struggle with fundamental data quality management challenges. Do you have the right information at the right time to make an informed decision? If not, why not? Sometimes it takes drilling down into the obvious questions to arrive at smart answers.

What's a stupid question?

Stupid questions aren't actually stupid.

They're the kind of thing an outsider asks after taking a 30-minute tour of your facilities. They uncover the things that staff and vendors have become accustomed to, like a workaround for broken processes or out-of-date technology. It might be as simple as printing out a form, filling it out, and faxing it to another location. Why not make a fillable form or send the information in an email?

why?

The smartest question is, why? Why do we do it that way? Why can't we change it? Why are we afraid to change it? It often takes asking "Why?" at least five times to get to the root of the problem.

5 QUESTIONS TO ASK TO MAKE THE BEST USE OF YOUR DATA

Organizations hoping to tap the benefits of emerging technology face these difficult questions.

1. WHY SHARE YOUR DATA?
Sharing data with third parties and vendors will be necessary for implementation of blockchain and artificial intelligence assisted decision-making. Most organizations won't have the capabilities to support these activities internally. Shared data will flow to vendors for analysis and use in the applications. While due diligence is required, any organization that won't share data is effectively opting out of the mainstream supply chain.

2. WHEN IS THE RIGHT TIME TO SHARE YOUR DATA?
Ideally, the best time to share data is when it's part of a comprehensive, proactive strategy. If you wait until there's an operational failure or your financial results are lagging, it may be too late. But before your organization embarks on a new technology initiative, it's essential to make sure your data stream is ready in terms of completeness and accuracy. It's always a good time to share targeted, relevant data with trusted partners.

3. ARE YOU MEASURING THE RIGHT THINGS?
While traditional KPIs are still important, it's essential to understand which data is most valuable to drive decision-making. An experienced Enterprise Logistics Provider will help you home in on the key business drivers and identify those aspects that can be a lower priority.

4. DO YOU KNOW WHAT YOUR DATA IS TELLING YOU?
For shippers, reports like a least-cost carrier report drive further analysis. There may be many valid reasons why the lowest-cost carrier wasn't used. Perhaps you're focused on meeting service level agreements. Or the lowest-cost carrier couldn't meet specialized parameters of the load. Legacy strategies focused on cost reduction and resource optimization must give way to a culture focused on creativity, resilience and problem-solving. Asking the "why?" questions will move beyond surface-level analysis to uncover hidden opportunities to optimize your processes. Using optimization software and simulation tools can reveal options that drive structural changes to ensure the lowest landed cost to the customer.

5. CAN YOU TRUST WHO IS READING YOUR DATA?
Once you have clean data, its value to your organization increases exponentially. The information will drive tactical and strategic decisions that will support predictive analytics and demand forecasting to drive operational efficiencies. Importantly, this information also fuels additional efficiencies through prescriptive analytics to automate decision-making by evaluating the best solution in complex environments. You need a partner to trust to interpret your valuable data. And that partner must take data security seriously, placing utmost priority on compliance with federal and state guidelines and regulations. An Enterprise Logistics Provider with deep analytical experience can help you identify and focus on the actionable information that you already capture on a regular basis. Partners who proactively engage in attestations such as SSAE 18 (SOC 1 and SOC 2) validate that proper controls are utilized to protect client information and maintain regulatory compliance.

FIVE BEST PRACTICES FOR INDEPENDENT SUPPORT

To position your enterprise for the next generation of technological advancement, we have identified some best practices to help you succeed.

Regular data management activity with broad awareness of marketplace competitiveness.

Data management is not a "set it and forget it" activity. A culture of continuous learning will be the key. Your enterprise must continually evaluate the integrity of your data collection and management programs not only against your internal requirements but also in light of external developments. Are there gaps or inconsistencies in your data? Will it be available in the formats necessary to support adoption of relevant technology?

For example, inventory optimization relies on a body of robust, accurate data. Without it, the results will be skewed and potentially damaging to your supply chain. Why is your enterprise not able to ensure your data is accurate and up to date?

Leveraging capital-intensive technology tools for data visualization, data analysis and mapping.

Rather than investing in technology tools directly, a trusted Enterprise Logistics Provider with deep technological expertise can support data management and analysis capabilities as a value-add in the partnership. As a solutions provider, the Enterprise Logistics Provider can stay up to date on the latest developments and evolution, reducing the need for ongoing investments in IT infrastructure.

For consumer businesses, social listening and smart home device voice ordering systems have the potential to influence demand forecasting through a new flood of data.

B2B enterprises can take advantage of sensor-enabled equipment driving replenishment orders and self-provisioning with a data flow that allows for a very high level of personalization.

You must have the ability to manage, analyze and present these new data sources for actionable business intelligence. Look for an Enterprise Logistics Provider with the capabilities to support your adoption of the emerging technology.

Collecting and validating data from disparate systems and reflecting a variety of metrics.

Complete and validated data will be the lifeblood of any new technology. Artificial intelligence will only be as smart as the underlying data. Fundamental systems such as the Item Master, Customer Master and Vendor Master must be comprehensively reviewed and corrected. In many cases, you'll find generic zip codes or item dimensions, or item weights that don't include pallets. When many actions are still performed manually, these discrepancies can be managed. But when there are thousands of automated transactions each day, the data must be correct to have any hope of realizing the intended benefits of artificial intelligence.

Cross-checking among different data sources is vital. Shipment data in the ERP must match the data in the TMS and then be reflected in the actual freight bill. Data from all touchpoints should align.

Capturing all the data elements that are available is vital as well. Even though you might not need it immediately, artificial intelligence will be able to get smarter faster with historic data to crunch. Once the data is lost, there's no going back to recreate it.

Visibility from summary-level to item-level to manage consumer expectations.

Customers have come to expect near-real-time visibility into the location and estimated delivery times for both B2B and B2C shipments. Also you must have visibility down to SKU-level data to inform your decision-making and manage customer expectations.

It is vital to understand interrelationships down to the SKU level. If you rationalize one SKU you need to understand the implications for other SKUs. For example, if you drop a slow-selling consumer item, then any accessories or spare parts should be identified for rationalization as well. If you change the sourcing for stores or particular products, you must understand the implications for the new configuration. Otherwise, you could incur higher costs or longer lead times.

Even if your supply chain has data flows across multiple tiers to produce a statistical forecast, that is only the beginning of the demand forecasting process today. Market intelligence and economic data can shape the demand curves even further. Tools are becoming available to utilize unstructured, qualitative data, such as what is available from social media to redefine demand expectations.

Consider your supply chain strategic planning. If your customer data or item data is not accurate, your enterprise could place a distribution center in the wrong location or acquire a facility that is not the right size. With many companies remapping their footprints to move distribution locations closer to the customer, it is a very real concern. Why don't you have inventory and shipment visibility down to the item level?

Independent, unbiased analysis of data.

It's important for senior leadership to have an objective view of the data landscape, both internal and external to the organization. A trusted third party will provide that perspective.

During World War II, British Prime Minister Winston Churchill created the Special Operations Executive, an independent intelligence organization to provide him with unbiased input and recommendations. Churchill feared any recommendations from the Royal Navy or British Army would naturally be skewed toward their specialties. The same thing is true for many enterprises. The IT Department will typically make technology-based recommendations, while the Operations group will focus on their specialties. Talent is another key component - the IT team must transition to trusted advisors focused on business solutions rather than operate with a technology help-desk mentality.

A trusted Enterprise Logistics Provider with deep technology and operational experience can provide that objective view of the data and make recommendations without regard to internal silos. With a holistic, department-agnostic view, senior leaders can have confidence in the foundations of their decisions.

There are many factors to consider in ensuring your data is ready to support the next level of technology. Creating a comprehensive plan to clean and structure existing data and capture as much data as possible going forward will deliver benefits across the enterprise. As the digitization of the supply chain continues, those who aren't able to ask the right questions could be left behind.

Emerging technologies are rapidly transforming the future of supply chain. Business, as we know it today, is changing. But we can't get there without genuinely reexamining how we collect, manage and analyze information that we collect from our operations, customers and suppliers. Leaders who understand what they need to change within their organizations to optimize these new technologies will emerge as survivors and leaders.

For more information on how a trusted partner can help you prepare your data for the next generation of technology visit TransportationInsight.com.

About Transportation Insight, LLC

Transportation Insight is a multi-modal, lead logistics provider that partners with manufacturers, retailers and distributors to achieve significant cost savings, reduce cycle times and improve customer satisfaction rates through customized supply chain solutions. Transportation Insight offers a Co-managed Logistics® form of 3PL, carrier sourcing, freight bill audit and payment services, state-of-the-art transportation management system (TMS) applications, parcel technology platform (audit, engineering, advanced analytics) and business intelligence. The Enterprise Logistics division of the Transportation Insight Holdings, LLC, (TI Holdco) portfolio, Transportation Insight operates alongside transactional freight brokerage Nolan Transportation Group (NTG) to help client shippers engineer efficient supply chain networks. Combined, the $3.2 billion TI Holdco organization serves 7,000 clients with logistics management services that include domestic transportation (TL, LTL, Parcel), e-commerce solutions, supply chain analytics, international transportation, warehouse sourcing, LEAN consulting and supply chain sourcing of indirect materials including secondary packaging. Headquartered in Hickory, NC, Transportation Insight has secondary operating centers and client support offices across North America.

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