The Big Data eBook: Why Supply Chain Leaders Are Using Big Data Analytics
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(cerasis)
INTRODUCTION
Supply chain industry leaders have access to more information today than ever before in history. Thanks to data gathering programs, supply chain software, and data entry applications, this represents a mountain of data, which has the potential to provide ground-breaking insight into how to improve business-model efficiency. As a result, business leaders can reap a significant return on investment by thoroughly analyzing this data. Unfortunately, some may not understand what supply chain big data truly is, how it is useful, and why they need to take advantage of it as soon as possible.

What Is Supply Chain Big Data?

Supply Chain big data is the ultimate compilation of data gathered in the course of business. This includes risk analysis, detailed reports of how a supply chain functions, and even lead generation. Big data is collected from a variety of sources, such as internet websites, transportation management systems, individual-employee data entry, and more.

How Does Big Data Improve a Supply Chain?

Big data is nothing more than a conglomeration of facts, figures, and processes in raw form. However, this data needs to be carefully sorted and analyzed to find its true value. Supply chain leaders understand supply chain big data can greatly improve business efficiency, which translates into four primary forms of improvement.

Join us in this all new e-book and discover the increasing use of Big Data in the supply chain, logistics, and transportation industries. At the end of the day, it’s all about a strategy that is adopted and shared by the entire organization.
Chapter One

What is Big Data?
What's Big Data in Supply Chain & Logistics? Why Should I Be Looking at This Tech Trend?

Data reflect all the small, seemingly insignificant details of the modern world. From a review of your personal bank account spending habits to larger, more advanced processing capabilities, data evolve and expand with each passing day. If you were to look at how closely people interact with their digital selves, you would not be mistaken for comparing humanity to a combination of digital and organic matter.

This is not a discussion of fantasy either. It is real, and the volume of data being produced every 48 hours rivals that of all data and information gathered over thousands of years of human history, explains Bernard Marr. Big data has become synonymous with better business, improving efficiency in the supply chain, continually improving and innovation. But first, you need to understand a few things about its basics.

When Did Big Data Become a Game-Changer?

Big data is not a new concept. In reality, it reflects the common use of data information for marketing purposes. A simple comparison of big data can be seen by thinking about the factors that go into setting up a child's lemonade stand.

Location, time and cost are the primary influences on how many customers will visit the stand. Now, imagine how collecting information on each of these different possibilities could influence future sales.
For example, does location A offer more benefits than location B. In this example, location A is located outside of shopping center with few restaurants. Location B is located inside of the food court in the same shopping center.

Passersby will be likely to stop in either instance, but knowing what is driving these potential consumers can help the lemonade operator make a profit. For instance, the bitter flavoring of lemonade may be better paired with sweet treats. As a result, sales may be hypothetically higher near a bakery or other confectionery. Over a few hours, the same lemonade stand is moved by parents to different locations in the shopping center. Sales change with each movement, and at the end of the day, the parents and child know the best and worst locations to set up for the next day.

In other words, they have actually used data analysis to realize what does and does not improve profit margins. This is exactly the point behind big data.

Why Is Everyone Interested in Big Data?

Big data is almost incredibly affordable. Unlike the computer systems of the mid-19th century, modern data processing is actually more economical than calculating information on paper. In addition, the cost of storing data digitally is cheaper than storing physical copies of information, especially when considering climate control, security and accessibility. Yet big data can exist in several forms, unstructured or multi-structured data, reports Lisa Arthur of Forbes magazine..

These varying forms play a major role in what and who create and use big data.

What and Who Create and Use Big Data?

Data collection units are used by practically everyone in business. The amount of information collected by a single cash register can exceed the farthest imaginations of past civilizations. Unfortunately, this data source lacks value if left unattended and unstructured. As a result, big data may need to be isolated to specific events to ensure data collection does not reflect extraneous factors.

For example, an analysis of fuel efficiency may require information on road conditions, tire pressure and octane ratings. However, competitor reporting may not necessarily impact these factors. In essence, the data collection points and analyses must be useful in determining the end result, which implies a direct need for ongoing isolation and analysis of specific data structures as they relate to one another.
Fortunately, today’s computer systems can complete these analyses faster than any human possibly could. Consequently, businesses can take advantage of big data without having the financial resources readily available, especially considering the amount and volume of big data processing options via the cloud.

**Where Is Big Data Impacting Business?**

Big data is an omnipotent, omnipresent topic in successful business models of modernity. Every enterprise needs to fully understand big data in order to maintain even a modest competitive advantage. Unfortunately, businesses that forgo this course will not be able to maintain efficiency at levels necessary to produce the cheapest and most effective products or services. Additionally, big data is going to start causing problems for many businesses very soon.

The technology is there, but the pressures on all industries involved in the digital space are growing. According to IBM, the number of available data scientists needed to create the next generation of big data processing equipment and innovation is simply too small, which is shown in the following graphic:

**Number of Data Scientists Needed.**

While this may not seem like a problem, it means the limitations of today’s systems will become more pronounced and evident. Therefore, all businesses must work together to promote big data as a future industry in itself through initiatives in educational institutions and beyond. Ultimately, the current and future generations depend upon the biggest players in big data, such as supply chain and transportation leaders, to further this cause in ensuring the survival and growth of big data for next revolution of business in the logistics industry and beyond.
Chapter Two

How Do Supply Chain & Transportation Leaders Get Started in Collecting and Using Big Data?
What Is the Impact of Big Data on the Supply Chain & Transportation Industries?

Big data will be a defining force in the future of logistics, but the benefits of big data are already being felt. Before thinking about future possibilities, you need to understand how it is currently being leveraged, According to Katrin Zeiler, supply chain entities will be able to lower overall operating costs, create and test newer business models, develop and maintain a higher standard in customer service and attain unsurpassed efficiency. This graphic shows the true scope of impact of big data in the industry.
Obviously, there is a lot going on. But nearly all of these processes revolve around a few common factors, reports DHL Customer Solutions & Innovation, and you need to understand what they mean for the supply chain and transportation industries. Essentially, in order to make big data help transportation and freight companies improve, all departments must be on board and share in the gathering and analysis of big data. If the full organization is involved the following can happen:

1. **Real Time Route Optimization**: delivery routes are dynamically calculated based on delivery sequence, traffic conditions, and recipient status
2. **Crowd-Based pickup and delivery**: a large crowd of occasionally available carriers pick up or deliver shipments along routes they would take anyway
3. **Strategic Network Planning**: Long-term demand forecasts for transport capacity are generated in order to support strategic investments into the network
4. **Operational Capacity Planning**: short and mid term capacity planning allows optimal utilization and scaling manpower and resources
5. **Customer Loyalty Management**: Public customer information is mapped against business parameters in order to predict churn and initiate countermeasures
6. **Service Improvement and Product Innovation**: A comprehensive view on customer requirements and service quality is used to enhance the product portfolio
7. **Risk Evaluation and Resilience Planning**: by tracking and predicting events that lead to supply chain disruptions, the resilience level of transport services is increased
8. **Marketing Intelligence for SME**: Supply chain monitoring data is used to create market intelligence reports for small and mid-sized companies
9. **Financial Demand and Supply Chain Analytics**: a micro-economic view is created on global supply chain data that helps financial institutions improve their rating and investment decisions
10. **Address Verification**: Fleet personnel verifies recipient address verification service provided to retailers and marketing agencies
11. **Environmental Intelligence**: Sensors Attached to delivery vehicles produce fine-meshed statistics on pollution, traffic density, noise, parking spot utilization, etc.
**Big data in logistics impact.**

Obviously, there is a lot going on. But nearly all of these processes revolve around a few common factors, reports DHL Customer Solutions & Innovation, and you need to understand what they mean for the supply chain and transportation industries.

**Better Shipping Options.**

Take a moment to study the following graphic:
Big Data Impact on Picking Appropriate Routes

It demonstrates how complex selecting the appropriate route for a given shipment can be. Shippers must review different modes, ranging from rail to truck, and they must go further by finding the most economic way to get the right product to the consumer at the right time, at the appropriate rate, which may be $0 in many cases, and without any additional issues. Unfortunately, the sheer volume of shippers and carriers working together in the modern world is beyond what any person can possibly expect to review in any given time.

Meanwhile, Amazon is continuing to offer shipping that is free, and this fact is destroying shipping models around the country. However, big data can give small to enterprise-scale shippers the ability to review how likely a given route will yield the best result for the organization. In reality, the actual shipping cost of Amazon's products is more than $0, but it is made up for by the profits attained when selling large volumes of products. In other words, selecting the best way to consolidate, mix and transport products can help attain a goal of $0 shipping in the eyes of consumers.

Reduced Operational Costs.

This goes back to lower operational costs too. While shipping routes may play a major role in overall efficiency, big data can impact overall operations, including warehousing, production and procurement of supplies. Essentially, not having enough of one supply can result in an unforeseen demand on a company, which drives up the overall value of each item. However, the accessibility of different products online means consumers will be more inclined to simply shop elsewhere, resulting in a loss for the company. This is turning traditional concepts of supply and demand upside-down, enticing more organizations and supply chain entities to utilize big data wherever possible.

Fewer Errors in Delivery, Pickup or Transportation.

Errors in the shipping process, including errors in delivery or pickup can result in necessary expenses to the company. While these expenses may seem minimal, imagine how they would evolve if an error occurred once per day on each route. That is not something impossible to imagine, but its cost could easily surpass overall shipping intake for a single day. Furthermore, consumers may demand replacements or refunds, and the public image of the company could be tarnished permanently.
Predictive Operations.

Having the ability to foresee the future would be the ultimate power in business, but it is simply impossible. However, the next best thing is knowing what trends are occurring and adjusting output and operations to mesh well with these trends. This is predictive operations or predictive analytics. It allows an organization to make reasonable, data-based decisions on how to adjust operations on a day-to-day basis. Previously, shippers and supply chain entities were forced to rely on historic data to create these predictions. Yet newer advances in technology, including big data, are being used to provide real-time insight into the expectations and needs of the industry. As a result, forecasts can be modified instantly, allowing for better allocation of resources and optimization across the supply chain.

Final Thoughts.

If you think about these benefits, you will notice they stem from three distinct areas affected by big data, which are identified in this graphic.

Key Impacts of Big Data in Logistics

Big data can impact the supply chain and transportation industries and go further by defining new options and paths to pursue. Rather than isolating a company to known variables and possibilities, big data is on the brink of making the impossible, possible. Yet, the most significant improvements are likely to revolve around customer service as all of the benefits of big data coalesce into a single, pleasant and mutually-beneficial relationship with customers. When you really think about your operation, you are all customer service representatives.

You might work behind the scenes, but every action of every employee and person involved in the supply chain is working to make customers happy, and if you can use big data to enhance all operations, your customers will show loyalty and continue purchasing items from your company. Essentially, big data is the greatest resource available to modern supply chain entities, and as a result, big data can be further used to improve business-to-business and business-to-consumer relationships.

[Logo: cerasis]
Chapter Three

What is the Impact if Big Data on the Supply Chain & Transportation Industries
How Do Supply Chain & Transportation Leaders Get Started in Collecting & Using Big Data?

The amount of information and improvement possible through big data can be overwhelming. Unfortunately, this may lead some supply chain managers or executives to simply avoid the topic until a more cohesive understanding of its possibilities can be made. Meanwhile, stakeholders do not get to reap the rewards of this new tech trend, and the overall enterprise suffers without realizing it. Yet the majority of companies have not defined a big data strategy, and others are barely starting to notice.

![Has Your Company Defined a Big Data Strategy?](image)

**Figure 3: Big Data as a strategic objective in European companies; Statistics from BARC study (N = 273); Source: Big Data Survey Europe, BARC, February 2013, p.17**
**Survey of Defined Strategy Presence**

As a result, the simplest way of defining a big data strategy must begin with understanding how it will evolve and affect the company.

**How to Start Collecting Big Data.**

1. **Gather Stakeholders, and Explain the Potential ROI of Big Data.**

   Stakeholders need to be aware of what options are available for boosting the bottom line in any company. As explained by the Boston Consulting Group, supply chain leaders should gather all stakeholders from an organization. In addition, stakeholders should reflect the diversity in an organization. In other words, stakeholders across all organizational silos must be involved. This is where the explanation of big data begins.

2. **Identify Areas to Use Big Data.**

   Big data can easily be implemented across any sector or process in a given business. However, its initial implementation should follow the logical flow of goods and operations within an enterprise.

   For example, supply procurement, manufacturing processes and warehousing information should be the first considerations. Alternatively, managers may want to implement big data in areas that would not necessarily require much change management, such as the actual transportation of goods and products after leaving the facility. This can be easily completed for companies opting to work with a third-party logistics provider (3PL) that offers a solution combining traditional enterprise resource planning (ERP) with a transportation management system (TMS) and big data insights.

Big data is not simply waiting on information to fall into your hands. It needs to have defined collection points, and depending on the size of your enterprise, you may want to consider using automated data capture points to further amplify manual data entry. This can include, as explained by Russell Reynolds Associates, using the following technologies:

- Radio-frequency identification.
- Bluetooth-connected sensors.
- Hand-held scanners.
- Automated notifications via TMS or other connected platforms when an error occurs can also help to reduce inconsistencies or errors throughout the course of work. However, automated data collection points must not replace manual entry entirely. In other words, an organization implementing big data should be open to the ideas of audits, such as those conducted by Cerasis, to ensure all appropriate processes are cataloged or credited as needed. Ultimately, even the best technologies can still make mistakes. albeit more rare for technology to be in error than an actual person.
4. Wait a Minimal Amount of Time for Feedback.

Today's big data systems are capable of providing nearly real-time data insight into an enterprise's operation. However, initial implementation will require a little bit of time to collect and analyze information. As a result, you will need to prepare stakeholders and workers appropriately. This may include providing additional training on new platforms or other used resources, emphasizing the importance of using newer technologies in place of traditional standards and ensuring all employees embrace these changes. Unfortunately, technology has a tendency to be associated with lost jobs and fewer opportunities for skilled workers. However, you can change the tone of the conversation by emphasizing that some normal waiting time will be needed between implementation and realizing the potential of big data and automated systems.

5. Follow Recommendations Appropriately.

After recommendations have been made through the use of big data, including recommendations made during bidding processes by 3PLs or other value-added service providers, otherwise known as 4PLs, everyone in your operation must be willing to follow recommendations as described. This can vary widely, but the important thing to remember is that not following such recommendations will increase the likelihood of failure and further losses to jobs or the company. Essentially, it is in the best interest of all parties involved to adhere and adjust to recommendations or needs identified through the use of big data analytics.

6. Continually Monitor the Performance.

Initial findings from big data lack value when not used repeatedly and continually to improve an organization's value. In other words, big data should reflect an ongoing process of data collection, analysis and action to produce better results than the original starting point. This creates a means of continually monitoring the performance and benefits of big data across an enterprise. Through the use of big data and business intelligence tools, such as the aforementioned TMS, managers and workers can help to determine proper ways of enhancing workflows or operations without necessarily waiting on feedback from others. Essentially, this will reduce the overall costs by creating a way for all staff members to engage in self-management and improvement throughout the course of work.
Change can be hard, but failure to change will be detrimental. By following these six steps, you can maximize the success of implementing big data solutions in your enterprise. Ultimately, your primary competitors are already ahead of you, and others will follow soon. Why wouldn't you take advantage of today and start working on developing your strategy now?
Chapter Four

How Can Leaders Use Big Data As A Tool To Continuously Improve?
Supply chain leaders are enthralled with the idea using, but they tend to cell to understand how to properly disseminate big data in their organization. True, they may understand how to roll out big data in a single warehouse, or they may have heard their competitors used branded systems for implementing this new technology. However, the basic problem remains.

Supply chain leaders must be ready to implement big data and leverage it to improve their companies without any delay or inhibition. This may sound impossible and frightening, but they must only understand how big always goes back to these two, simple principles of measurement, review and action.

Ask Traditional Questions, and Let Big Data Provide Answers.

The most common complaint of newer companies using big data analytics capabilities tend to revolve around traditional questions of business strategy. Consider the following elements explains John Richardson of Inbound Logistics, that impact business strategy.
Increasing order efficiency.

Demand forecasts.

Quantity of each product.

Inventory location and management.

Raw material suppliers and logistics.

Transportation modes used in procurement and shipping.

Distribution of goods prior to purchase.

Demand fluctuations.

Each of these elements more traditionally handle by outsourcing analysis of processes to supply chain consultant. This is actually where the concept of third-party Logistics providers involved. However, rapid growth and diversification of products are making shippers, manufacturers, and suppliers rethink their business strategy. In other words, consumers can get practically anything they want at a moment’s notice, and more consumers are expressing willingness to wait for a product a few days if free shipping is a possibility. So, this need to adapt operations reflects the common concerns of traditional customers and supply chain entities. However, there is a distinction.

Previously, these entities only needed to focus on their local demographic for ensuring continued stability. But the rise of the internet has given consumers and everyone else the ability to access any product from any seller and from any place on the globe. This is a traditional business strategy, and it is essential that the modern supply chain be willing to use big data all operations to create a more positive result than consumers, stakeholders or government organization ever needed before.
Performance Measurement and Management.

As explained in a previous blog post, continuous improvement in an organization can be achieved through the use of performance measurement tools via big data. Essentially, this reflects the skills and actual working capacity of employees. Since employees represent one of the largest expenses an organization may face.

Having the best staff members available can mean the difference between success or failure in a company. Furthermore, big data can help employees understand what they do and do not need to do in order to improve their performance scores. This will also help to prevent oversight from managers and keep all employees on track to complete their responsibilities as assigned.

Performance measurement does not have to be limited to the performance of employees either. It can be expanded to identify poorly performing machines, or it can be used to isolate in efficiencies in collaboration with suppliers or vendors. Ultimately, performance measurement is a metaphor for tracking any metric in the course of the supply train, but it's key to being effective is found in transferring the insights gleaned from big data into actionable results.
For example the operational efficiency of a given loading is directly related to how quickly Pickers are able to fulfill orders and move them onto the dock. Obviously trucks can only be loaded so fast what is the number of pickers is not appropriate for the current workload or what is the route taken through a factory is adding an extra 20 minutes to pick to the duties of each worker?

These questions identify the most insignificant of details can truly be driving forces of inefficiency in the supply chain. But the possibilities for continuously improving. Changes in the design or layout of the warehouse or alterations to the truck schedule may require the cooking duties of a certain worker to change at a moment's notice. Essentially, the worker must be able to access continuous data measurements on all factors affecting his or her responsibilities comment by accessing the system.

Continuous Improvement is a complex notion. It is based on hundreds, if not hundreds of thousands, of individual decisions based on data gathered from various collection points and analyzed in real time. All of this reflects a very large volume of data comment it can be digested and broken down into usable bits, much like the biological processes of the stomach making it essential to surviving the coming season.
Chapter Five

What Does the Future Hold for Big Data Applications at my Company in the Next 5 Years?
What Does the Future Hold for Big Data Applications at My Company in the Next 5 Years?

Big data is already impacting supply chain entities around the globe, but some of its most interesting possibilities may have yet to be realized. Since the digital universe will expand to more than 40 trillion gigabytes by 2020, reports Jim Taylor of Inbound Logistics, future possibilities through big data may not even be fathomable.

![Graph showing exponential data growth between 2009 and 2020.](image_url)

*Figure 1: Exponential data growth between 2010 and 2020; Source: IDC’s Digital Universe Study, sponsored by EMC, December 2012*
Growth of Data in Coming Years

However, the current progression of big data does give rise to some very tangible benefits to your company within the next five years.

Access to More Raw Materials.

The ability to access more raw materials is a defining factor in future production, and according to Mark van Rijmenam, big data will likely have an impact on the ability to extract more oil deposits. While this may appear disconnected, more fossil fuels actually will lead to reduced fuel costs and better overall profit margins in your company. Obviously, it does not negate the need to work toward green initiatives and reduce your overall carbon footprint.

Greater Value of Services or Products.

Predictive analytics capabilities within big data will help more organization improve production without increasing operating costs. In a sense, the value placed on services or Goods will rise, making purchasing or utilizing such services more cost effective to consumers. this impact will be felt across all industries, but it may be most notable in supply-chain entities that are directly involved in the health industry.

For example, a pharmaceutical company may use big data to identify more efficient way of manufacturing life-saving medications. As a result, the end cost to hospitals, doctors, prescribers or patient will be lower. This is essentially allowed better health and functionality of all people in need of medications.

Now, imagine how this same example could be applied to different Industries served by the supply chain and transportation industry. This application also includes the use of big data for enhancing the efficiency of routes and overall operations to produce greater value of services.
Better Transparency and Visibility.

Transparency and visibility or concerns of supply chain entities. Government organization AR continually reviewing a company's carbon footprint for violations of existing environmental standards. Unfortunately, a violation may result in significant penalties or punishments against the respective organization. As a result, better transparency and visibility achieved through big data may reduce risk involved in the supply chain.

Consumers are also demanding better visibility into the day-to-day operations of companies they engage way. While this may be seen on social media and across mainstream media, the present known to consumers will always be shrouded in darkness. Supply chain partners and transportation providers must go beyond a reasonable expectation to provide more information to consumers, stakeholders, governments or any other interested party, provided it is not a competitor.

Innovation in Next Level of Services or Goods.

Innovation is one of the key areas big data can help organizations over the next five years. Computer processing capabilities to identify severe inefficiencies or problems in manufacturing, storing, shipping or repairing processes in the manufacturing and logistics industry. However, Innovation must also be led by human involvement, and companies must be willing to accept that computer simulation they provide better results than traditional thoughts on innovation.

Better Sales and Operations Planning.

A company is only as good as its salespersons. if a company wants to truly expand operations and Achieve maximum optimization of resources, it must be able to produce higher new customer Acquisitions and better customer retention ratios. Ultimately, a company must be willing to embrace any and all possibilities for managing and tracking the performance of cells person across the Enterprise.
This ability is already in use through various customer relationship management (CRM) platform, but it is becoming involved as it is integrated with systems most used in the supply chain and Logistics Industries.

For example, a transportation management system (TMS) may combine the big data analytics capabilities of a CRM tool with factors independent to that respective company's operation.

**Real-Time Decisions, Not Reactive Decisions.**

Decisions made in the course of business tend to reflect issues presented to see company. This may include problems encountered during the manufacturing, storing or transportation of goods. Unfortunately, these decisions have always been reactive comment reacting to a stimulus that cause them to material line. However, big data alone and organization to Define likelihood of occurrence and given problems and propose workable, cost-effective solution before an incident occurs. Consequently a company can predict and react to it issue in a proactive, non-threatening manner.

The future of big data applications could go beyond your wildest dreams, but it will certainly prove to be an exciting to be involved in manufacturing and the supply chain. Fortunately, you get to be present for the possibilities if you start embracing, implementing, utilizing and preparing for transition a big data-based methodology in your company's operations today.
CONCLUSION
Big Data In The Supply Chain Doesn’t Have to Be Scary. Get on board!

Thank you for reading this comprehensive e-book on Big Data in the Supply Chain.

Big data is new and “ginormous” and scary – very, very scary. No, wait. Big data is just another name for the same old data marketers & financial analysts have always used, and it’s not all that big, and it’s something we should be embracing, not fearing. No, hold on. That’s not it, either. What I meant to say is that big data is as powerful as a tsunami, but it’s a deluge that can be controlled . . . in a positive way, to provide business insights and value. Yes, that’s right, isn’t it?

Over the past few years, I have heard big data defined in many, many different ways, and so, I’m not surprised there’s so much confusion surrounding the term. Because of all the misunderstanding and misperceptions, I have to ask:

CFOs and managers, you talk about “big data” in the C-suite, do you know if everyone’s on the same page? And even closer to home, are you certain there’s consensus within your organization?

You won’t get far untangling your big data hairball if, for example, half of your company is forgetting to include traditional data in the calculus or if some don’t think social network interactions “really” matter. So, please, take a minute to get back to basics and do a simple self-check.

Ask yourself, your team, the C-suite:

How do we define big data?
While we fully expect your company to add its own individual tweaks here or there, here’s the one-sentence definition of big data I like to use to get the conversation started:

Big data is a collection of data from traditional and digital sources inside and outside your company that represents a source for ongoing discovery and analysis.

Some people like to constrain big data to digital inputs like web behavior and social network interactions; however the CMOs and CIOs I talk with agree that we can’t exclude traditional data derived from product transaction information, financial records and interaction channels, such as the call center and point-of-sale. All of that is big data, too, even though it may be dwarfed by the volume of digital data that’s now growing at an exponential rate.

In defining big data, it’s also important to understand the mix of unstructured and multi-structured data that comprises the volume of information.

Unstructured data comes from information that is not organized or easily interpreted by traditional databases or data models, and typically, it’s text-heavy. Multi-structured data refers to a variety of data formats and types and can be derived from interactions between people and machines, such as web applications or social networks. A great example is web log data, which includes a combination of text and visual images along with structured data like form or transactional information. As digital disruption transforms communication and interaction channels—and as marketers & customer service managers enhance the customer experience across devices, web properties, face-to-face interactions and other interactive platforms—multi-structured data will continue to evolve.

Industry leaders like the global analyst firm Gartner use phrases like “volume” (the amount of data), “velocity” (the speed of information generated and flowing into the enterprise) and “variety” (the kind of data available) to begin to frame the big data discussion. Others have focused on additional V’s, such as big data’s “veracity” and “value.” One thing is clear: Every enterprise needs to fully understand big data – what it is to them, what is does for them, what it means to them –and the potential of data-driven decisions, starting today. Don’t wait. Waiting will only delay the inevitable and make it even more difficult to unravel the confusion.

Once you start tackling big data, you’ll learn what you don’t know, and you’ll be inspired to take steps to resolve any problems. Best of all, you can use the insights you gather at each step along the way to start improving your customer engagement strategies; now, let’s talk a bit more about the use of big data.
About Cerasis

Cerasis, a transportation management company founded in 1997, has always believed in the use of technology to improve process to not only reduce cost but to stay strategic, competitive, and have the ability to use data from technology to continually improve. In fact, one of our core values is just that: continuous improvement of our people process and technology.

We built our Cerasis Rater TMS in 1998, launching it as web-based before Google was even a business. Our (now Army, as our Development Manager, Jerel Byrd calls them) development team are always continually improving the Cerasis TMS, as we know it is vital to have a system that is not only innovative, but sound, secure, and enables those in transportation to do their job all while doing it cost effectively.

Are you using a TMS to help manage your transportation department as a shipper? What are you seeing in the space?

In addition to our transportation management system (TMS), the Cerasis Rater, when you are a Cerasis shipper, you gain access to the following managed services:

• Transportation Accounting to include: Invoice auditing, one weekly invoice no matter how many shipments, and freight payment services
• Comprehensive end to end freight claims management: if your freight is damaged or lost, we will handle the freight claim on your behalf
• Carrier Relations: We will negotiate rates on your behalf and you get better rates thanks to our buying power
• Inbound Freight Management
• Reverse Logistics
• Robust Analytics and Reports
• Small Package/Parcel Auditing
• Small Package/Parcel Contract Negotiation
• Warehousing
• International
• & More!

Want to learn more? Visit http://cerasis.com
Get a Demo of our TMS or Inquire About Our Services