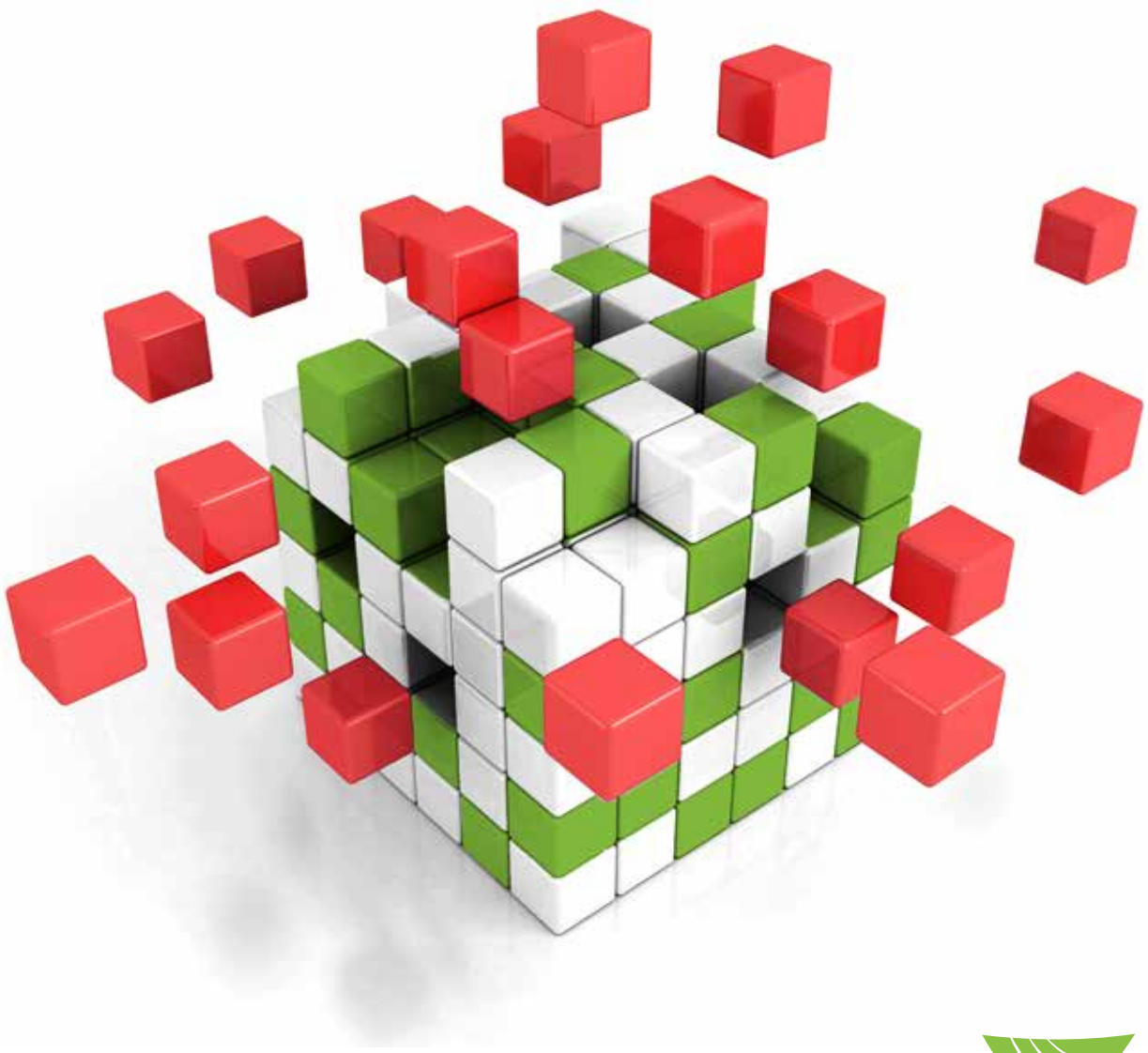
Game Changer
Transportation Spend Intelligence

Take control of your transportation spend with best-in-class analytics



VERACTION

SEE. SAVE. CONTROL.

Best-in-class analytics can be a significant difference maker for shippers and can assist in transforming transportation cost data into a strategic lever for any company.

Transportation Costs are Tough to Tame

There is little doubt that managing transportation costs in any organization is an enormous challenge. The complexity is significant due to the myriad of variables involved such as modes, carriers, lanes, and geographic regions, as well as the coordination of multiple internal stakeholders. As a cost category, transportation is one of the most significant expense items in any company, and small mistakes in managing it can have big consequences. Conversely, controlling transportation effectively can generate positive impacts to the bottom line and turn the category into a strategic cost lever for any company.

In addition to the significance of transportation as a cost category, the demands upon transportation within an organization are extreme and are constantly increasing, with no end in sight. In an era of multiplying sales channels, increasing customer demands, and global supply chains, complexity is higher than ever and makes cost management especially daunting for shippers.

While every organization aspires to manage their transportation costs with the same rigor that they apply to other critical cost components in their business, it isn't easy. Transportation costs are tough to tame.

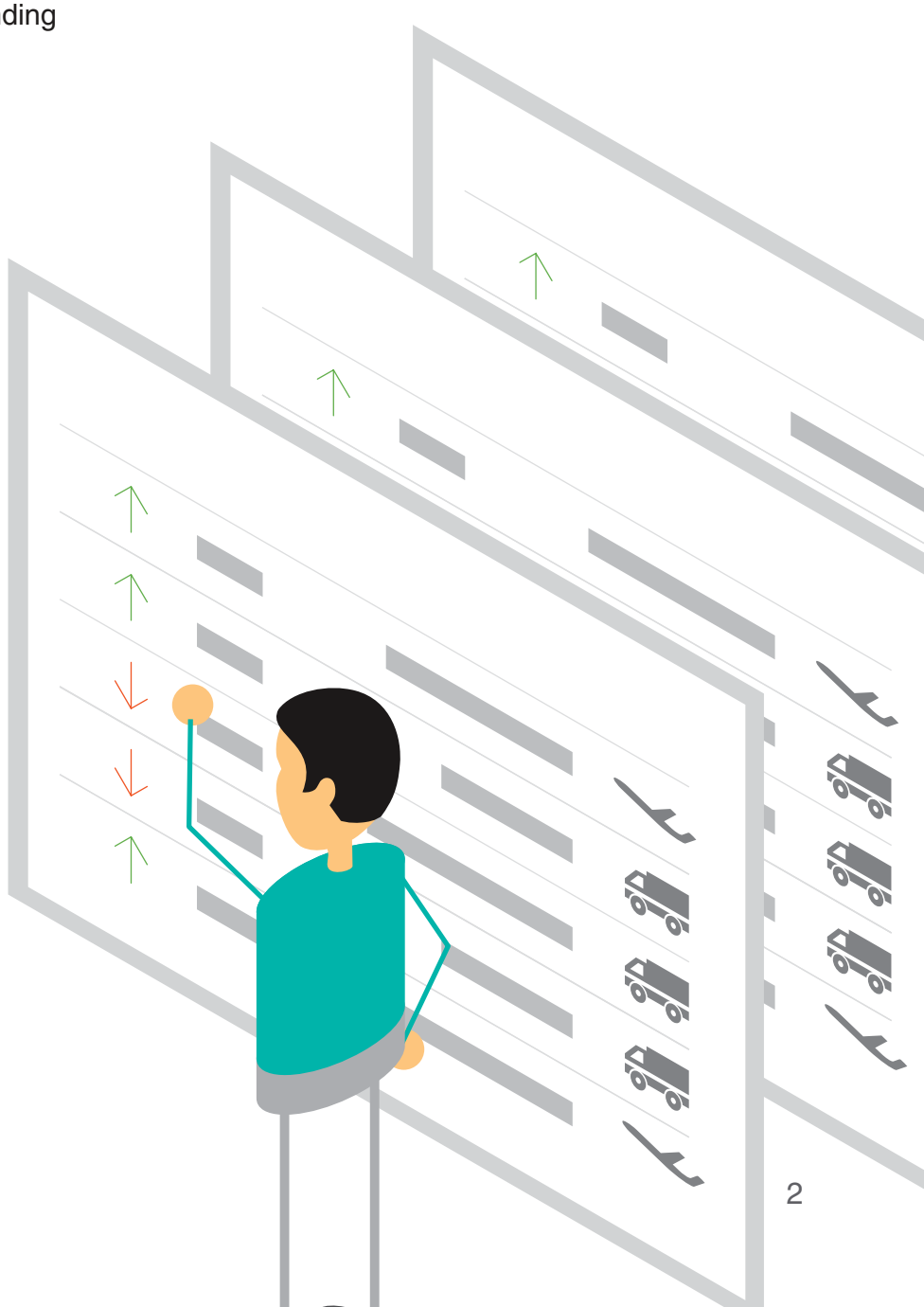
Transportation is a significant cost category – small mistakes can have big consequences.

If You Can't Measure It, You Can't Manage It

As with any continuous improvement process, the challenge associated with managing transportation costs is measurement. Keeping track of a complicated network with dozens of internal and external variables across multiple constituencies is much different than managing other spend categories. Moreover, measuring changes in such a network and understanding what impacts those changes will have on overall transportation spending can often seem more like rocket science than spend management.

Today, many shippers, regardless of size, have to contend with these measurement challenges using nothing more than reports, spreadsheets, and pivot tables. Despite leveraging freight and parcel audit data from their existing provider or from internal solutions, as well as data from other sources such as a WMS or TMS, identifying the root cause of changes or variances is difficult.

Even when a root cause is determined, new changes always seem to occur. It's a vicious cycle of looking for needles in haystacks, and when they are finally found, it's usually too late to react. As a result, transportation costs have a way of managing shippers, rather than the other way around. It's inefficient and costly, and creates risk for any business.



The Promise of Data Analytics for Transportation Spend Management

There is no doubt that the explosion of data analytics and business intelligence solutions is one of the most important developments in recent years and promises dramatic improvements for how shippers can manage and control their transportation spending. Data analytics can be extremely powerful, and have the potential to eliminate the pain involved with making sense of raw transportation data and converting it into actionable intelligence. They can significantly reduce the amount of time required to produce robust analyses and contribute to the development of new strategies. In fact, there are few areas that can benefit as fully as transportation can from robust analytic tools. But with all the promise comes much hype, and it can be difficult to distinguish between dashboards or visualizations and the real analytic capabilities required to deliver maximum cost-controlling benefits.

As an example, there are very few providers today in the freight and parcel audit space who cannot deliver at least some form of reporting or dashboard functionality.

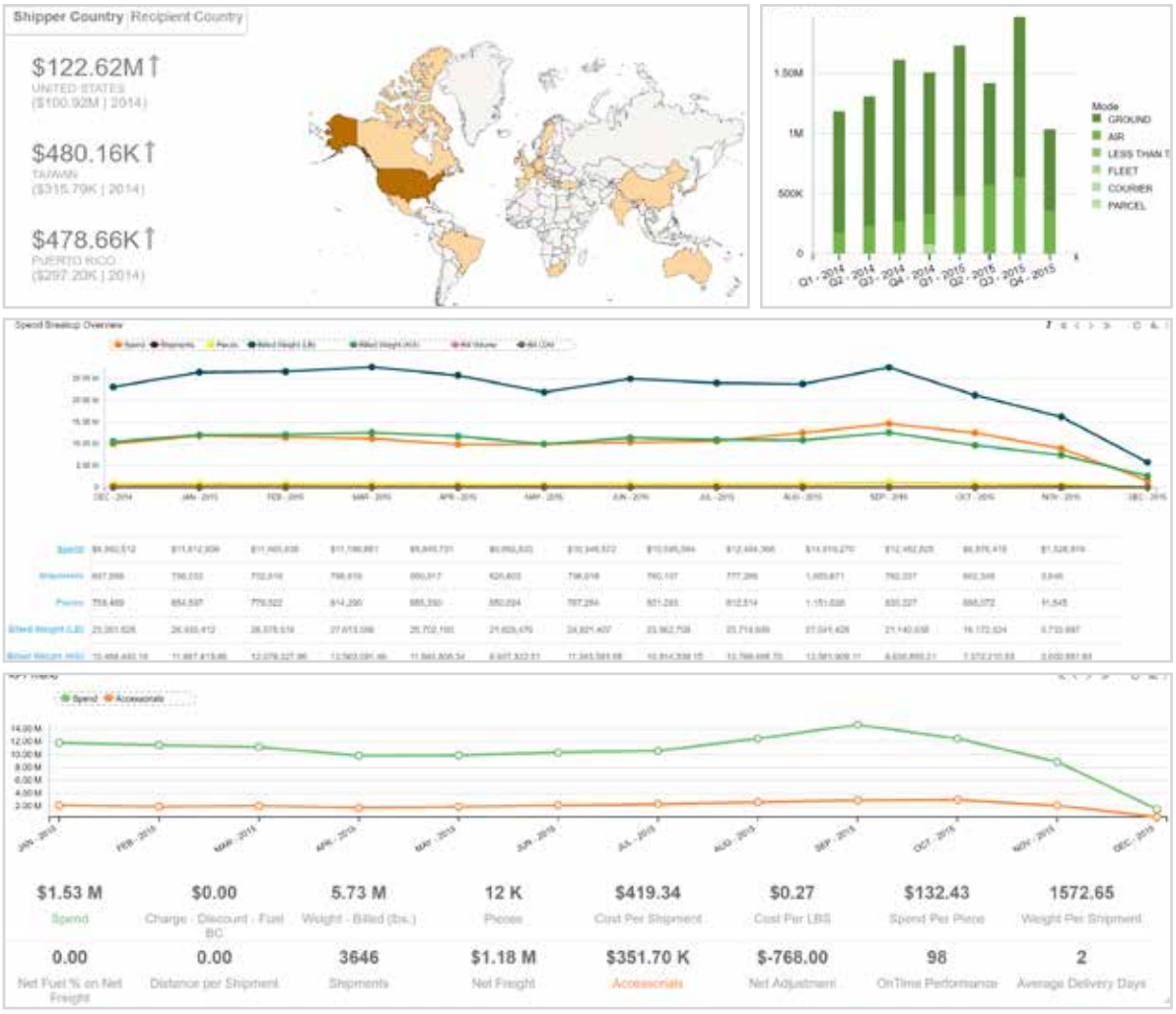
There is also no shortage of analytic solutions that are available for building out your own set of dashboards and visualizations. However, as a shipper, you should ensure that these solutions do more than just report or simply "playback" your spending activity. Can they really help you evolve your organization toward comprehensive transportation spend management and create advantages for the business? Can they actually replace spreadsheets and pivot tables or do they simply help to produce them? Can they take full advantage of your transportation cost data and help create meaningful insights that you can then leverage within your transportation strategies to improve performance?

3 Questions You Must Be Able to Answer to Control Transportation Spend

Assessing an analytics solution for transportation spend management doesn't have to be difficult. In order to determine the viability of the solution and ensure that it can help move you toward real control over your spend, there are three basic but key questions that any solution must be able to help you answer about your spend.

What Happened?

Any shipper pursuing spend management must have the ability to continuously monitor their transportation spending with visibility into all of the key cost components that comprise that spend. They must be able to answer the fundamental question of "what happened?" Having a retrospective and comprehensive view of your spending and key performance indicators (KPIs) at the mode level is crucial to developing the insights required to improve.



Example views of transportation spend data including key performance indicators (KPIs) – Veraction TSI Insights.

In some ways, answering this question should be “table stakes” for any spend management program. It should be a basic expectation of your current tool set or your current freight or parcel audit provider. However, often this expectation is not met. High level visibility by itself isn’t enough. Visibility into the various components of transportation spend, often derived from shipment detail where the true drivers of cost can be evaluated, is required and can help create meaningful organizational awareness regarding how much expense exists by mode, carrier, region, cost center, product (SKU), or a myriad of other categories. Understanding the influencers of those expenses, such as accessorial charges, freight rate, fuel, service, weight, and distance/lane, which are often included within carrier invoicing, is equally critical. Without visibility into these components, shippers are handicapped in their ability to understand the dynamics of their overall transportation spend or to identify the common denominators within that spend that drive costs.

With the capability to successfully and routinely monitor your spend and its key components, a measurable baseline can be developed which can be leveraged to determine any variations occurring over a specific time period. It can also be used for comparisons against a predefined plan such as an annual or quarterly budget plan or even against specific industry or category benchmarks that may be available.

Baselining your spend is vital in allowing you to focus on unique cost metrics (drivers and KPIs) within your spend, such as cost per shipment, cost per mile, or cost by unit weight, all of which you can begin to measure discreetly and manage for improvement.

A comprehensive view of your spending and KPIs at the mode level is crucial.

Baselining your spend is vital in allowing you to focus on unique cost metrics.

Why Did It Happen?

Knowing “what happened” is essential and establishes a baseline for measuring and controlling your transportation costs. However, a more critical question is “why did it happen?” To answer that question, you need to be able to understand precisely the changes occurring in your spending at a granular level. You need to be able to identify the exact variances occurring in your costs between established baselines and current execution, such as comparing KPIs like cost per shipment or cost per unit weight. A high level view of variance is not sufficient. An understanding of each of the variables that constitute total cost in detail is required.

Transportation spend management is all about continuous improvement – establishing a firm view of the current condition, comparing it to a target condition, and then crafting strategies and actions to bridge any gap.

Now that we know “what happened” and have a firm understanding of the current conditions, we need to be able to compare it to the target condition and ascertain what went wrong – or what went right. Once we do that, we can begin to formulate an action plan to either correct an issue or exploit potential opportunities. We need to understand “why.”

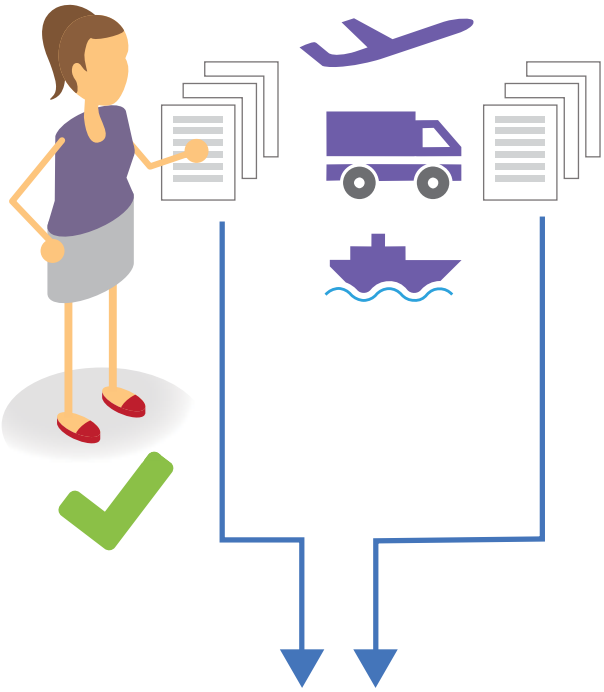
Knowing “what” happened with your costs is important. Knowing “why” it happened is critical.

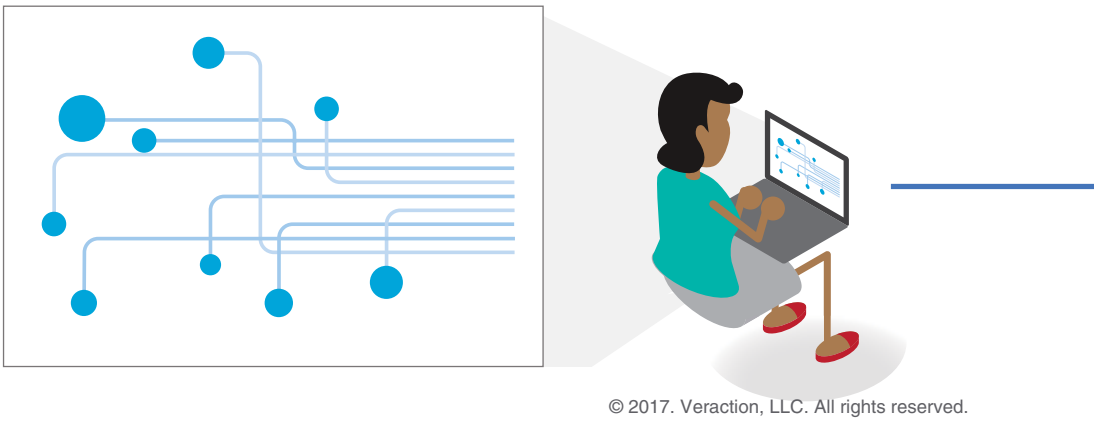
Example views of variance analysis depicting changes in spend and the influencers of those changes – Veraction TSI Variance Analysis (patent pending).

Discovering why spending increased or decreased in any given period for the program requires robust variance analysis. With transportation spend data at the shipment detail level, this can be overwhelming based on the volume of data involved. As an example, a large retailer executing millions of shipments each month as a result of rapidly expanding business to consumer markets can generate significant transaction data volume considering the multiple events, charges, and other characteristics of a typical freight movement. This volume can easily represent hundreds of millions rows of data annually in a transportation data set. Simply breaking this data up into manageable portions and dumping it into a spreadsheet to make sense of it can require days of effort by multiple analysts, and the resulting analysis could take equally long to explore fully.

A best-in-class analytics solution can accomplish this type of analysis in minutes rather than days and with mouse clicks instead of pivot tables. It allows a shipper to compare all of the possible variable combinations influencing their costs and enables precise targeting of any and all root causes for any variance across time periods or relative to annual spending plans.

Hundreds of Millions of Rows – The amount of raw transaction data a shipper's activity can produce annually.





Example views of modal variance analysis depicting changes in spend over a defined period – Veraction TSI Variance Analysis (patent pending).

The type of variance analysis required to increase control over your spending program typically requires a comparison of specific KPIs over time periods and by mode of transportation. The objective is to produce detailed intelligence on all relevant factors, by weighting their contribution to the overall change in costs for the KPI. This allows a shipper to quickly orient to the exact cost variables, or "influencers," impacting costs, and then begin to shape the activities or strategies required to mitigate changes in the future. Such a variance analysis is akin to a root cause analysis – pinpointing the exact cost component (root cause) driving either negative or positive changes.

The ability to execute this type of analysis for any mode, region, KPI, cost center, or other elements reduces the "time to improvement" cycle and enables shippers to become more agile than ever before.

In addition to detailed variance analysis, the ability to portray variance at an aggregate or program level (such as for a specific mode or region) and present a coherent top level view in the form of a cost variance index or composite score can be equally powerful. Generating constant feedback for the organization on major cost components of a transportation program and providing transportation professionals with frequent "health checks" can quickly help to determine areas of spending requiring attention. Such "scoring" can enable rapid improvement activity for the program and help adapt to changing business conditions.

Example view of aggregating total spend variance and presenting it as a Variance Index with accompanying high level analysis commentary – Veraction TSI Variance Analysis (patent pending).

What Can I Do About It?

In many ways taking control of transportation spending matches the classic DMAIC (Define, Measure, Analyze, Improve, and Control) data driven improvement cycle used in Six Sigma for optimizing or improving any business process. Effective improvement is based on the data-based actions we take and the outcomes they generate. Are we guessing or are we making decisions and taking action based on empirical evidence in order to generate positive outcomes?

In a transportation network, seemingly small changes can have large impacts and can sometimes produce unintended (and unwanted) consequences. To mitigate the risks associated with change and to validate potential benefits, scenario modeling can be a useful tool and can help answer the third key question of “what can I do about it?”

A logical extension of any comprehensive analytics solution is modeling and impact analysis as a means to test and generate proof for the different hypotheses developed during analysis. This set of capabilities can act as a virtual “advisor” regarding the changes you are contemplating within your spend and provide enhanced control. Perhaps you want to explore switching modes for a specific type of shipment or understand the savings that could be generated by switching carriers or negotiating a reduced price.

The ability to model these changes across your existing activity and gain a preliminary view into their impact is invaluable and can help to focus your efforts on those actions with the highest levels of payback.

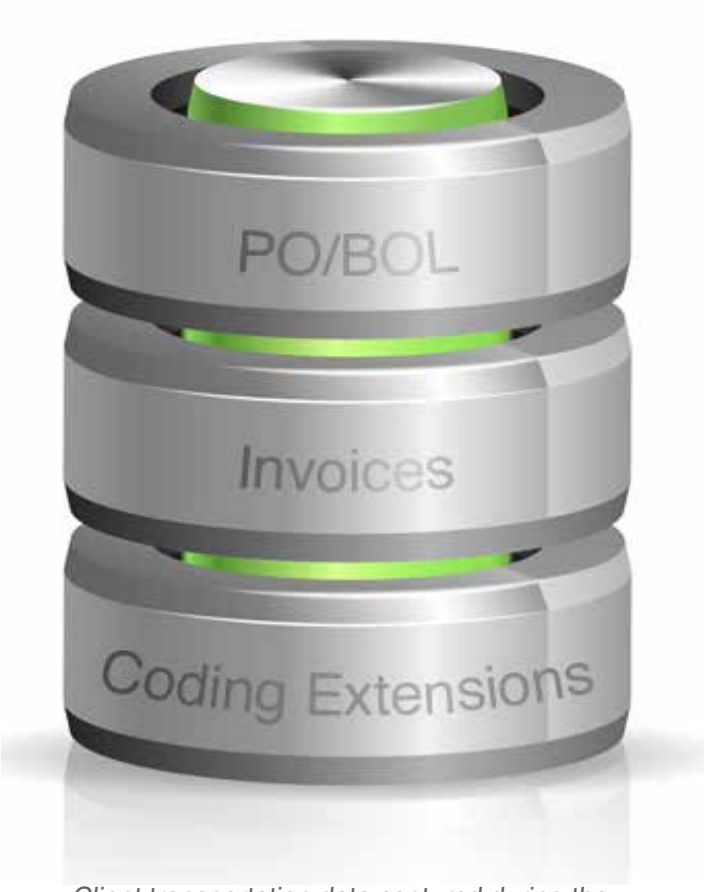
An example of the type of scenario modeling which often occurs manually during the planning phase of any contract sourcing activity is the impact analysis of specific rate changes and the modeling of optimal carrier routing or execution plans.

Modeling routing constraints, balancing service against price considerations, and understanding the carrier mix for a proposed rate are all important aspects of a best-in-class contract optimization initiative. Given today’s complex contractual agreements, combined with changing networks, lane densities, or final mile demands, this type of scenario modeling is critical to securing a desired outcome.

Effective improvement is based on the data-based actions we take and the outcomes they generate.

The Secret Sauce – Clean, Normalized, and Enhanced Transportation Data

While strong technology plays a significant role in answering the three key questions of "what happened?", "why did it happen?" and "what can I do about it?" the critical ingredient to any robust transportation spend analytics solution is an abundance of centralized, clean, and enhanced data.



Client transportation data captured during the freight and parcel audit process from carriers, LSPs as well as customer source systems. This level of data provides "what happened?" type analysis.

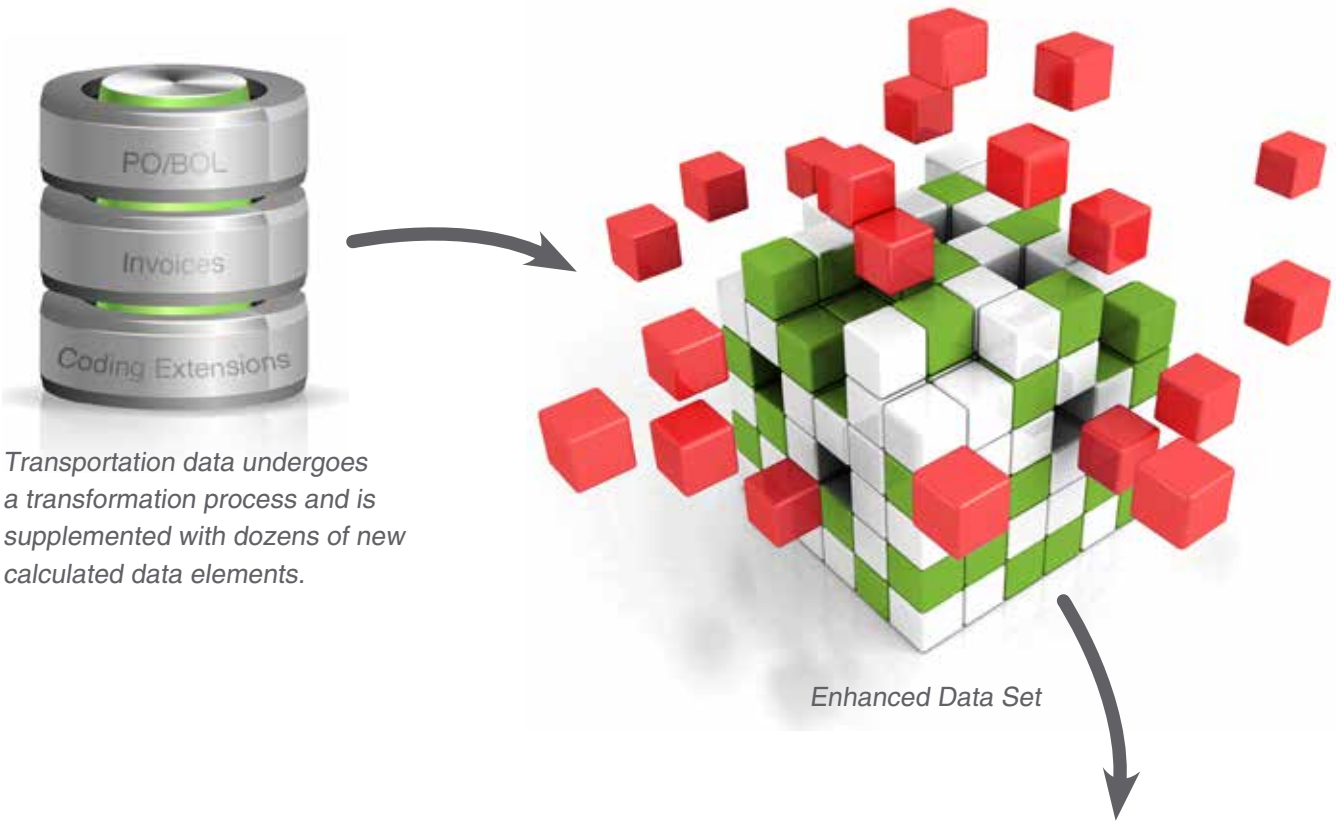
Taking full control of your transportation spend requires having access to all transportation data – all modes, all carriers, all regions, all details. To accomplish this, companies can either build out their own transportation data warehouse to collect and maintain their data from all parts of the enterprise, or they can rely on a provider to do this for them.

Perhaps the most widely-used source for transportation data is freight and parcel audit providers who already make a significant contribution to spend management in the way of compliance, allocating costs, and financial settlement with carriers. A byproduct of this freight audit and pay activity is shipment-level transportation data. Freight audit providers can play a pivotal role in ensuring that carrier shipment data (invoices, bills of lading, etc.) are captured and normalized, as well as enriched with critical data elements from the shippers themselves, such as general ledger account codes, SKU information, and other data only available from a source application.

At the end of the freight audit process, final payment information supplements the data and provides the shipper with a rich repository of detailed transportation data which can be used to answer much of the "what happened?" question.

Freight Audit Data Isn't Enough

Similar to data analytic solutions, not all freight and parcel audit providers are created equal, and the quality and quantity of data collected during the process can vary greatly among providers based on their data governance processes. Critical to generating a quality data source through the freight audit process is a comprehensive data schema; one that accounts for all aspects of the transactional data and organizes it in a standardized way. The ability to clean and normalize data during the audit process is equally critical – removing mutations such as address variations and mapping data elements to invoice information such as cost centers, SKU information, etc. Without this level of data management and governance, spend analytics will suffer and analyses at any level will be impractical.

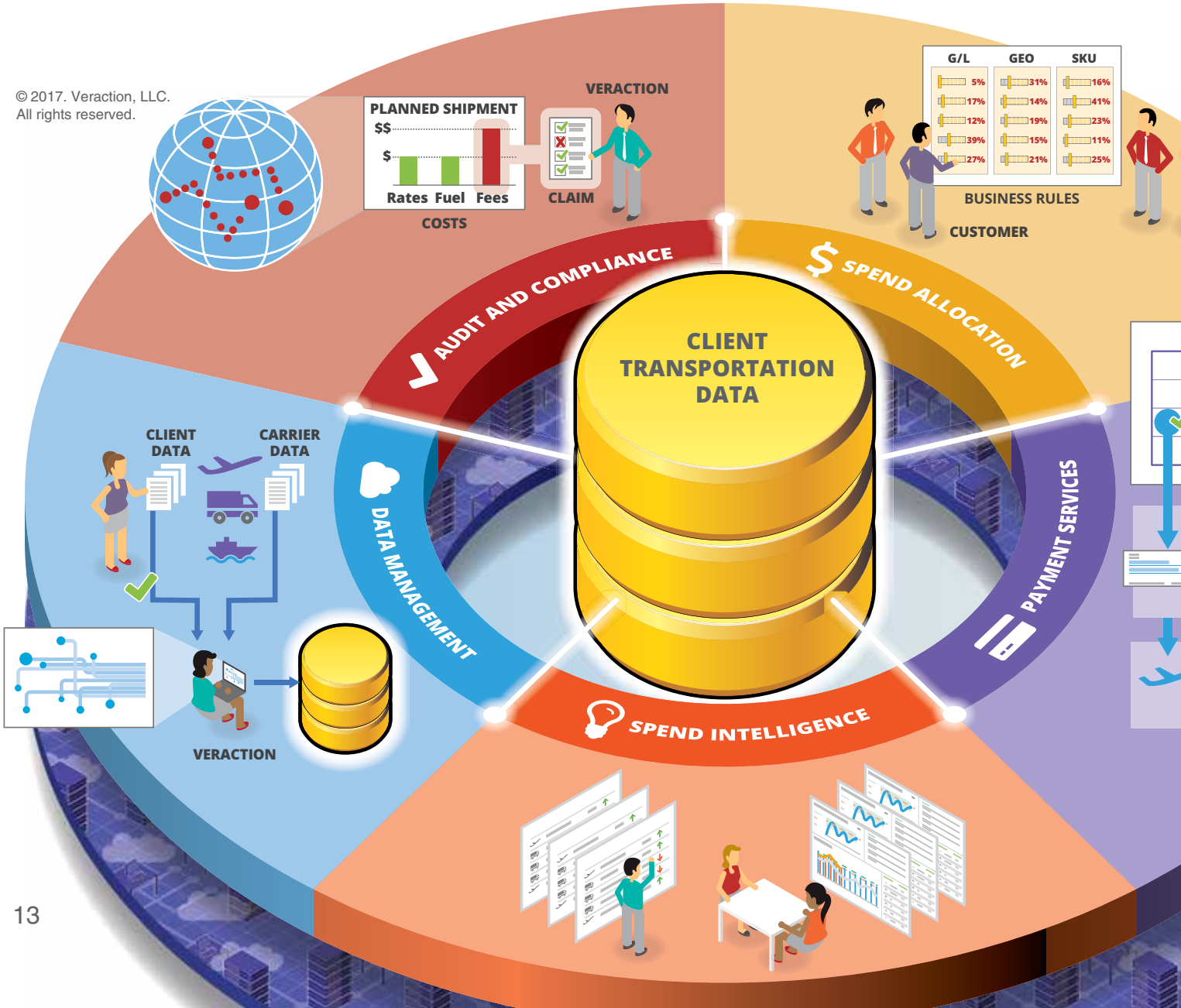


Transportation data undergoes a transformation process and is supplemented with dozens of new calculated data elements.

Only an enhanced data set, leveraging specific algorithms and routinely refreshed with new data produced by the freight audit process can produce detailed variance analysis.

Detailed variance analysis simply cannot be accomplished without some level of data transformation, normalization and enhancement to the base data set. To produce robust variance analyses (why did it happen?"), the base data must be augmented with dozens of calculated data elements used by dozens of algorithms to precisely compute and break down the costs by key spend components including key performance indicators (KPIs). Without this transformation, the base data set is incapable of providing measurements with any accuracy regarding the weighted impact and influence of key variables or presenting any kind of aggregated view.

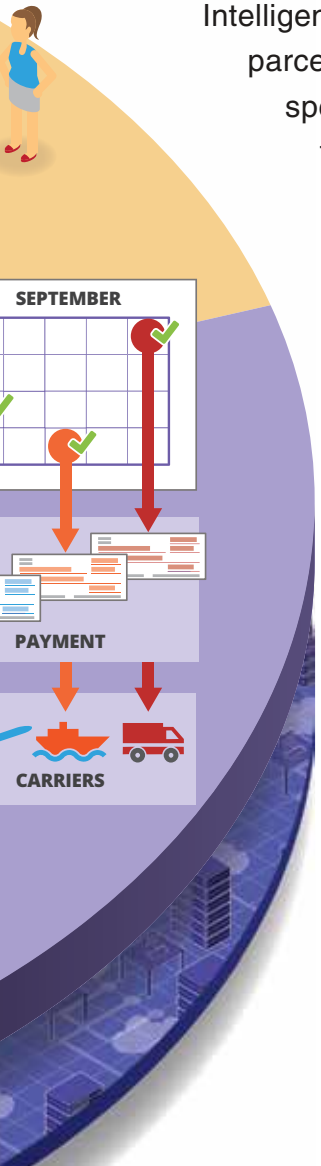
Once a new "super set" of data is created through transformation to generate the required analysis, it must then be kept in sync and refreshed with new data created by the freight and parcel audit process. The bottom line is that base data is critical, but ensuring it is cleansed, normalized and then subsequently enhanced through a robust transformation process is the key ingredient in any spend analysis.



Spend Intelligence as Part of an Overall Closed-Loop Transportation Spend Management Program

Effective management of transportation costs is a function of a number of critical components working together to create a closed-loop process that can deliver visibility, savings, and control to shippers and generate continuous improvement opportunities. Additionally, in order to be truly effective, the transportation spend management process needs to account for all modes and all geographic regions – it needs to manage the entire transportation spend category. Spend intelligence through data analytics is a significant component of the process but relies on a steady stream of rich data typically generated from the audit and payment cycle. Analytics alone can't overcome the spend management challenge.

At Veraction, our Total TSM® solution is purpose-built as a closed-loop spend management solution for transportation; combining and leveraging a best-in-class set of data management and audit capabilities with a rich set of spend intelligence solutions or Transportation Spend Intelligence (TSI). In our view, Total TSM represents the next generation of freight and parcel audit, and we intend to drive the industry toward comprehensive transportation spend management to finally deliver the capabilities shippers require to control their transportation costs more effectively.



The combination of Total TSM and TSI create a technology enabled process that can answer the three critical questions of "what happened?", "why did it happen?" and "what can I do about it?" while providing an overall program to optimize and calibrate your spending with precision.

Spend analytics must be part of a broader closed loop spend management process to be most effective

Veraction Transportation Spend Management Solutions

Veraction is driving the evolution of freight audit and payment solutions toward comprehensive transportation spend management. With a suite of solutions consisting of best-in-class audit and payment capabilities and patent-pending spend analytic solutions, Veraction is helping shippers of all sizes take control of their spend.

Veraction Total TSM®

Transportation Spend Management + Transportation Spend Intelligence – Insights

Combining best-in-class freight audit and payment capabilities with a world-class spend intelligence solution, Total TSM delivers visibility, savings, and control over your most significant and complex spend category—transportation. Whether you're looking for efficiencies at a high level or need to dive deep to make a difference in specific areas, Total TSM is designed to help you deliver the outcomes you need.

Veraction TSM

Transportation Spend Intelligence – Variance Analysis

Variance Analysis delivers visibility into the changes taking place within your transportation spending and the cost drivers or influencers that generate those changes. Leveraging your freight audit data and enhancing it through a proprietary transformation process, the solution provides a cost feedback mechanism allowing for rapid improvements.

Patent Pending

Transportation Spend Intelligence – Advisor

Advisor delivers powerful scenario modeling and impact analysis, allowing you to understand the outcomes resulting from planned changes to your program before committing to them.

2017 Release

About Veraction

Veraction is the leader in Transportation Spend Management solutions. Veraction combines industry-leading cloud-based applications with best-in-class services to help companies realize savings, visibility, and control of their transportation spend across all transportation modes. With a global footprint and a range of solutions spanning freight and parcel audit, bill payment, financial allocation services, spend analytics, visibility, and expert consulting, Veraction enables companies to manage their critical and significant transportation spend more effectively. Veraction is headquartered in Memphis, TN with US offices in Austin, TX and Saint Simons Island, GA, as well as global offices in Amsterdam, Manila, and Shenzhen.

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