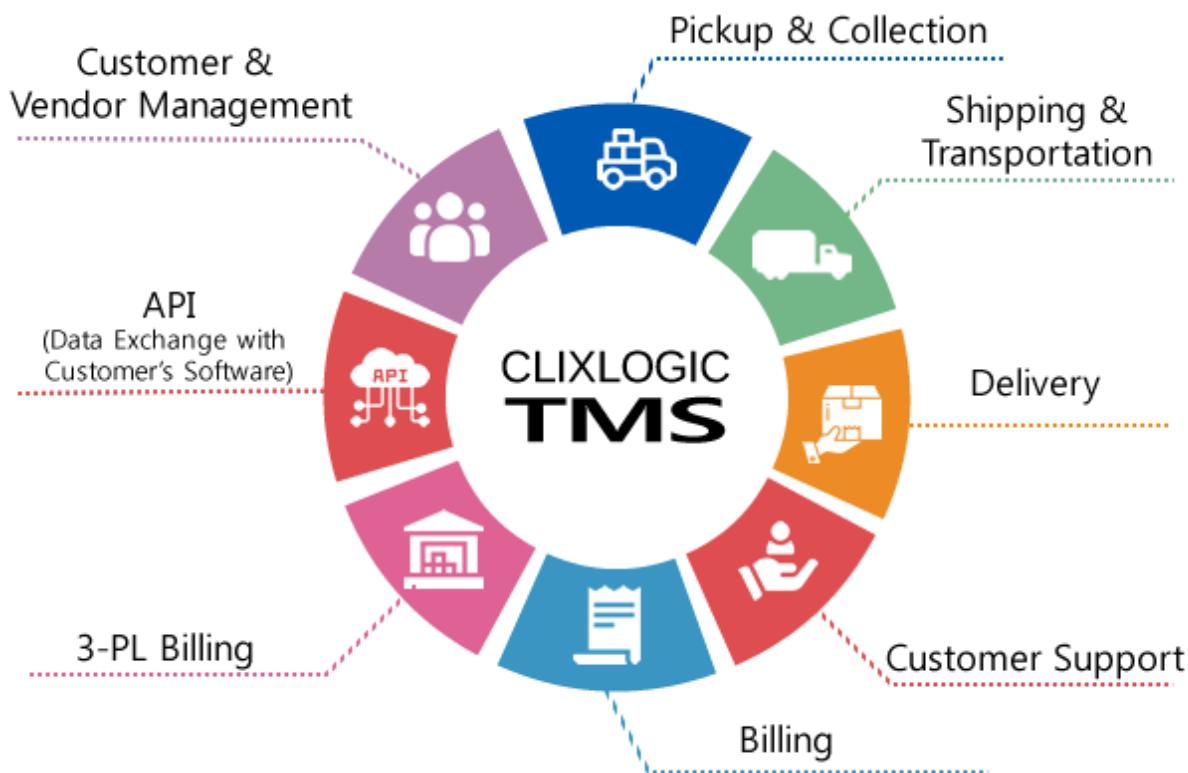


TMS Software: A Comprehensive Guide

A company's ability to use technology effectively and efficiently has become an increasingly important aspect of its success. As companies realize the importance of supply chain excellence, increased investment in technology has benefited logistics and supply chain management. Technology is becoming more advanced and essential for efficiency, cost and service, as well as building a competitive advantage.



TMS ADDRESSES THE FOLLOWING KEY ISSUES:

- Fast Freight Capacity Finding
- Reduce Freight Transportation Costs
- Resolve Increasing Regulations
- A software that is easy to understand by users
- Transparency in Logistics & Supply Chain Activities

[Transportation management software](#) (TMS), which is a key component of most companies' operations, can help them shift their company's strategic to tactical perspective.

Implementing transportation management software has made a significant impact on the industry. It has changed how freight is transported from one point to another. Additionally, it has pushed logistics and supply chain as a way of gaining a competitive edge in the market.

Shippers in the US were left scrambling for trucking capacity to transport their freight. This was after the 2018 and 2020 freight market capacity shortages. Companies are now preparing for the future by getting rid of outdated freight systems and spreadsheets that their [logistics](#) teams have developed internally. This transition will see a rapid increase in TMS adoption, and growth, between now and 2025.

The surprising low adoption rates of TMS technology, according to a Gartner study, is a major factor in the phenomenal growth.

- 50% Adoption of TMS by Companies with Freight Spends Above \$100 Million
- 25 % Adoption of TMS by Companies between \$25 Million and \$100 Million
- Companies with less than \$25 million in freight spend - About 10% adoption of TMS

Combining these numbers would show that only 35% to 40% logistics teams use a TMS for their business. There is still plenty of room for shippers to make significant improvements in their supply chains. You don't want to be one the laggards, as the numbers show.

TMS is not an independent piece of software that [freight](#) departments manage. Instead, it connects to other systems and databases to reduce friction and streamline product conversion from raw goods being shipped from vendors to final salable products delivered to the customer. TMS transparency throughout the supply chain is an important part of reducing friction. This only enhances customer experience.

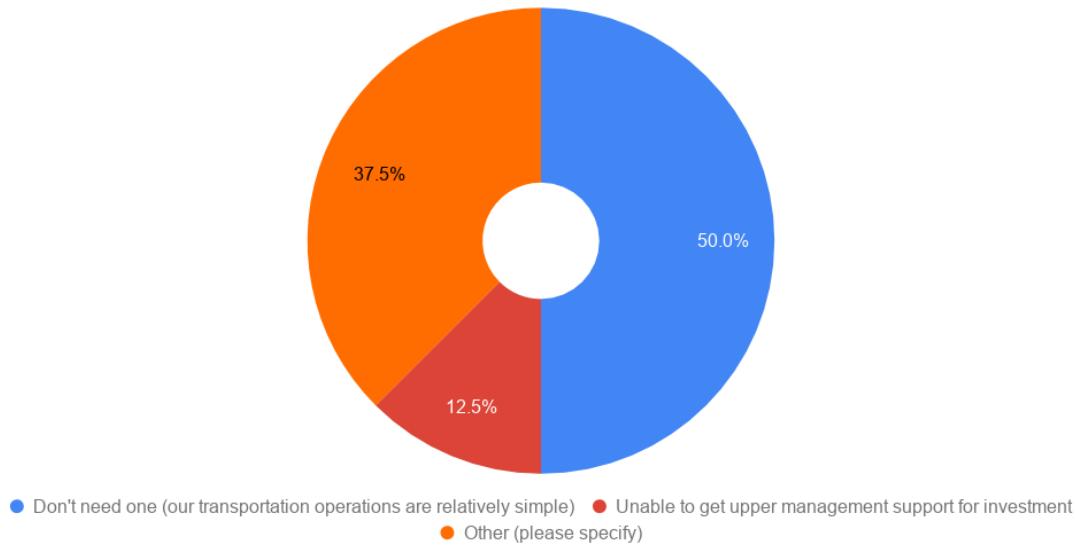
The top TMS systems can improve the customer experience by connecting to industry databases. This allows them to connect to ever-expanding databases that contain billions of dollars in freight spend per lane.

Both are vital and cannot be underrated. The ability to tap into market databases can help finance and logistics teams optimize the company's performance on the cost and capacity equation. The next freight request for quote (RFQ), which is not based on the cost of the same freight lane, will no longer be an equation to determine the budget or a flat rate reduction but rather a solution to the problem.

A managed [transport](#) service third-party logistics company (3PL) has been used by some companies to reduce their software investment and accelerate their climb up the TMS curve. These companies use game-changing software to leverage multiple shippers and improve service on a single platform.

If a company is not interested in outsourced managed transport services, they can purchase and implement a top-tier cloud-based TMS. Small and large businesses can choose to use the SaaS cloud-based TMS as a low-cost option that offers high-quality transportation services. They can pay only for what they use, and tap into industry best practice that is being continuously updated by the hundreds of thousands of users who log in to these systems every day.

What is the primary reason your company doesn't use a TMS?



Even with all the benefits a TMS has, companies can still make mistakes or have trouble with a TMS implementation.

Choosing the right [TMS system](#) for the shipper is the most important step in any TMS decision. Shippers shouldn't underestimate the importance of a TMS implementation. They don't want to have to go through another TMS upgrade or change every 3 to 5 year. A TMS that is "right-fit" should last a lifetime.

Many companies have difficulty choosing the right TMS software provider. It can be frustrating and overwhelming. This is why it is important to create a requirements document that weighs all the functional aspects of the company's needs. This will ensure that there is no confusion, and that the decision-making process is objective.

When you are going through the selection of a TMS, we recommend that these things be taken into consideration:

- General Functionality
- Rating and Contracts
- Strategic and tactical planning
- Operational Planning & Execution
- Optimization Engine
- Dedicated Fleet Optimization without Asset Requirements
- Reporting Visibility
- Web portals
- Settlement
- Analytics

A trusted partner is a great idea for TMS implementation. If you don't have a trusted partner, details could slip through and expose weaknesses in the system. As with any business-critical update or change, it is crucial to have someone to look over things and monitor your progress.

You will need to provide your team with the right resources and a tested training program. This will ensure that you are ready for success. Management will be questioned about their decision if they don't invest the necessary time and resources to properly test and train the staff. Human capital is essential to support the TMS throughout its lifecycle.

Even though there are potential pitfalls to a TMS, your company's ability to rely on Excel or other outdated systems can put it at risk. This could limit its ability to drive a competitive advantage in a marketplace where supply chain leaders are crushing it every day.

The risks can be easily overcome with the right tools and a partner. With this background information, we invite you to continue your TMS journey by reading more about transportation management software and how to successfully incorporate [logistics technology](#) into your company.

Key Functions of TMS

Planning

- Optimization
 - Routes, carriers, loads, orders
- Analytics and reporting
- Performance management

Freight Management

- Carrier rates
- Contract management
- Order management
- Multimodal transportation

Execution

- Booking
- Tracking
- Real-time visibility
- Communication

Administration

- Billing
- Payment
- Settlement
- Auditing



TMS - THE KEY BENEFITS

TMS solutions offer more than freight cost savings. They allow companies to streamline the flow of goods throughout their [supply chains](#).

We will be discussing the essential features of TMS software platforms to drive maximum savings and ROI in a company's supply chains. But before we get into the details, here is a brief overview of the cost savings and ROI components of a transportation management platform:

- **Planning & Optimization**
 - Savings of 3% to 12%
 - Analyzing shipment, rates and constraints
- **Execution and Advanced Visibility**
 - Savings of 2% to 5%
 - Workflows and automated execution tasks
 - Rate / Capacity/ Routing Guide/ Carrier Performance Management
- **Settlement**
 - Save 2% to 5%
 - Freight audit, self-billing and pay
- **Procurement**
 - Savings of 3%-10%
 - Secure / Maintainable Durable Rates / Capacities
 - Reduce Broker Dependencies

Transportation management systems offer many benefits and functionality. Let's take a closer look at what a TMS can do to improve a company's supply chain strategy and logistics.

FOCUS ON INDUSTRY BEST PRACTICES

TMS software is growing exponentially because companies are quickly integrating TMS software into their business. Companies are shifting away from Microsoft Access, Excel and other less efficient and cost-effective methods of moving freight.

Gone are the days of spreadsheets, emails and phone calls. Shipping is too complex. Both internal and external stakeholders expect more. TMS software platforms have grown in scope over the last decade to keep up with changing shipping processes. TMSs today are more than just [freight management](#) platforms. They are fully connected systems that allow for product movement and are accessible to all involved.

TMS industry best practices dictate that companies integrate the software with all systems. This allows them to provide crucial information to customers, starting at the time the goods are purchased and ending at the moment the customer takes delivery.

Once the TMS is in place, it will monitor, report, and capture data to help you analyze your strategy and tactics for improved performance in the future. Jeff Bezos (Amazon's CEO and Founder) calls this process of ever-evolving improvements the fly-wheel effect. It is a slow process that picks up speed as more people push the wheel forward. The wheel takes on a life all its own.

IMPROVE OPERATIONAL EFFICIENCIES

A successful TMS software will provide full transparency for all freight movements to internal and external stakeholders.

A TMS is not only useful for managing freight. It also helps to bring all stakeholders together in the supply chain to reduce friction and remove obstacles.

We believe that TMSs are more than just freight. However, we understand that many of our customers are trying to find a better mousetrap that will drive cost savings and efficiency in their department. This is exactly what a TMS can accomplish.

TMS improves efficiency by planning efficient freight routes and automates execution from shipment tender to delivery. The TMS uses a waterfall approach where the lowest cost contract carrier is offered freight. The carrier management process automatically pulls in thousands of carriers from freight load boards to find the best freight carrier for the load. It streamlines the process of onboarding and managing spot rates, charges and terms of [shipment](#).

The TMS assists the logistics team in tracking and monitoring the shipment using various methods. It also reports any deviations to ensure a timely pick-up or delivery. TMS aids in monitoring the shipment through electronic integration. Although some carriers might not update shipment progress regularly, the load may be out of specification and an email or phone call will be made to request a response. The exception is managed by the freight operations team to prevent any last-minute problems in the shipping process.

CUSTOMERS SERVICE - INCREASE

Good TMS software can also help with customer service. This is particularly important in an economy that has a growing retail customer base.



TRACK & TRACE SHIPMENTS

TMS software [tracks shipment](#) from tender to delivery. Because the consequences of decisions made during the process ultimately impact the transportation process as well as the customer's satisfaction, both internal and external, TMS software does this. TMS software's tracking feature provides 100% transparency to customers throughout the entire shipment process.



TMS was originally designed to handle outbound freight. However, TMS can also be used to manage inbound freight. Inbound freight management is often neglected and undervalued. However, when integrated into the supply chain strategy, it brings all the information into focus. This gives companies the opportunity to reduce freight costs and operational expenses. A company can monitor all inbound shipments and manage them better. This is especially important in a JIT environment.

Connectivity with Operational Data Platforms and Industry Data Platforms

Modern-day TMSs connect with the freight market and other analytical platforms. [Load boards](#), insurance validation and contract validation are all part of the freight industry platform. These services are essential for logistics teams to be able fill freight loads efficiently and safely using a single button.

There are many data warehouse consortiums that analyze the logistics market. They capture data from different [shippers](#) and logistics companies to compile billions of dollars worth of freight spend. The data is anonymously collected so that buyers of the information can't see the freight spend of either the carriers or customers, but they do see the actual spend at essentially all origin and destination points.

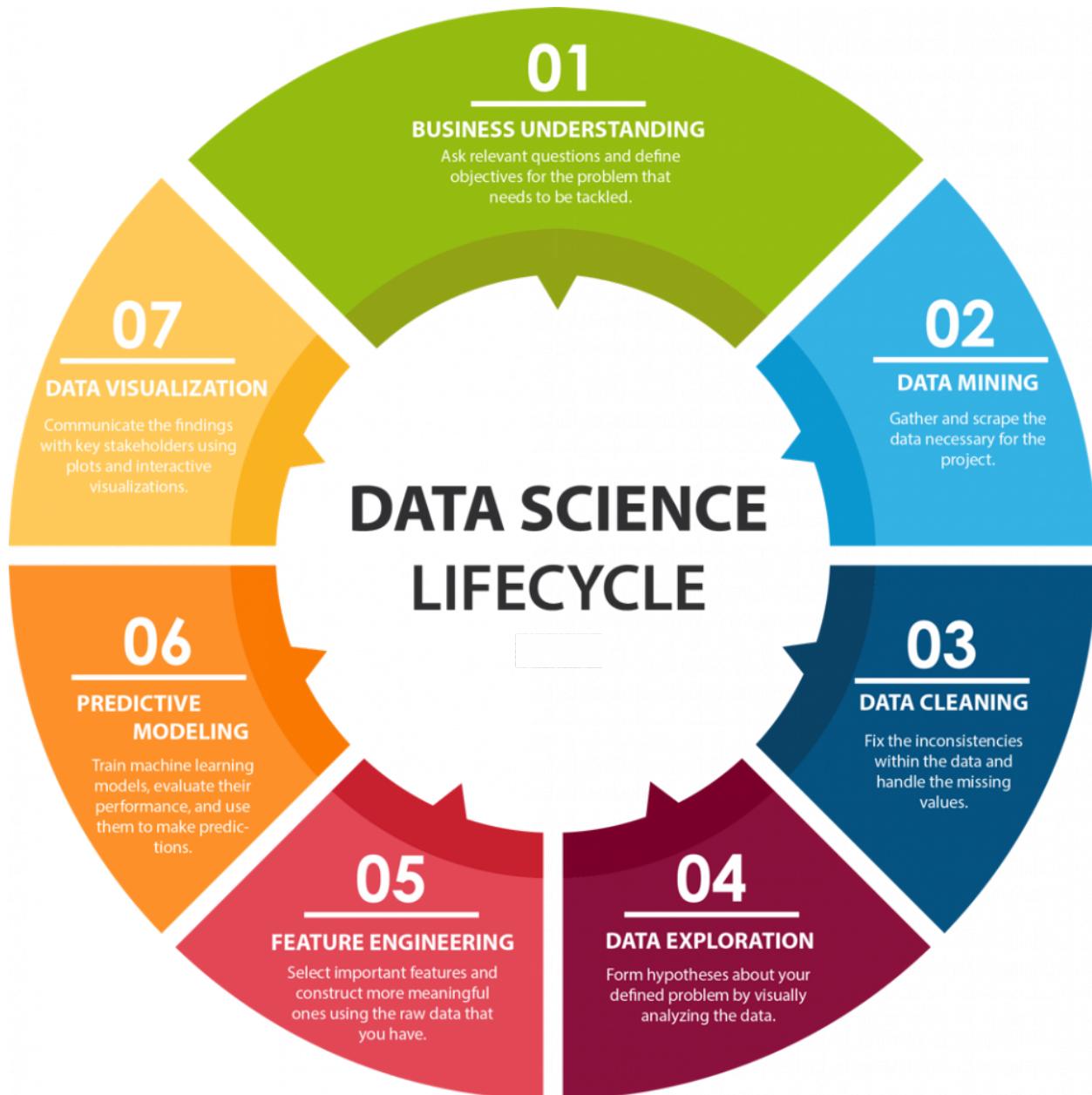
These are not averages of averages. They provide actual freight rate data for shippers and logistics companies to compare their performance against the market. These logistics data meccas have revolutionized how companies

benchmark their freight spend against other companies in their lane. This allows them to execute and create the most competitive RFPs for their business.

COLLECT OF DATA ANALYTICS

Important to remember that a TMS can be a powerful tool for freight operations teams but it can also provide incredible information to optimize freight spend.

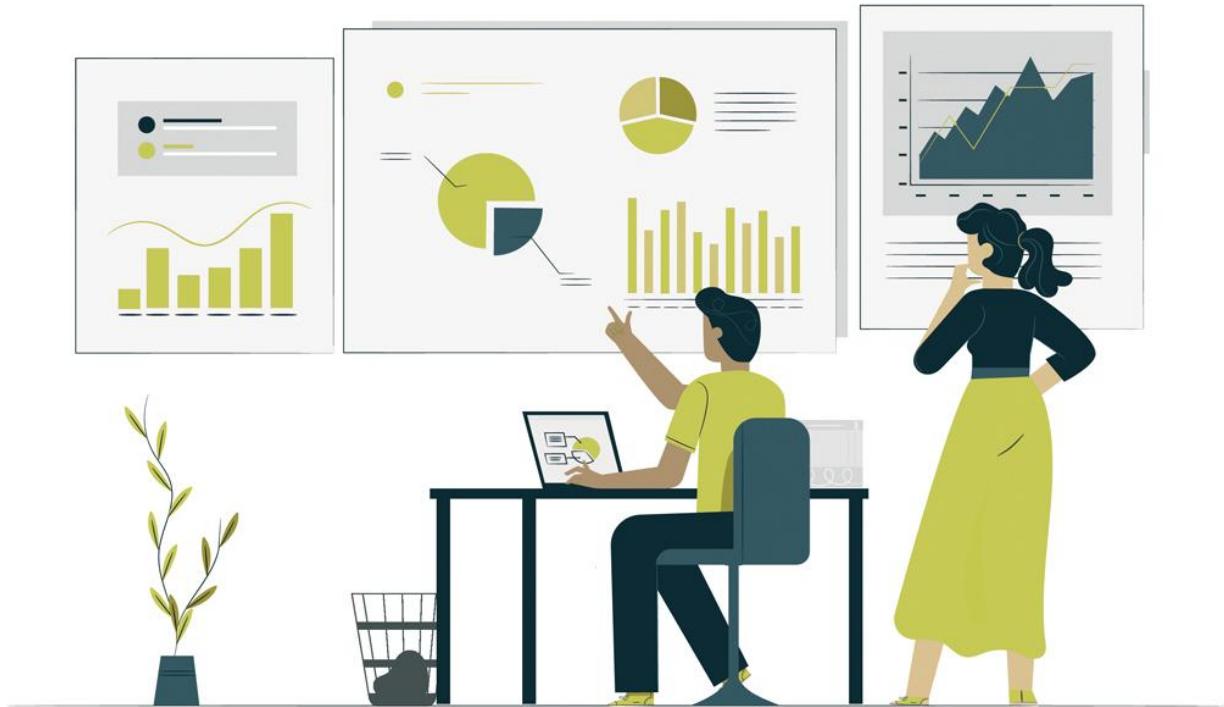
TMSs allow users to perform what-if analyses for tactical and strategic decision support. They also provide great tools for RFP management, execution and management. The TMS can be connected to external benchmark databases, as mentioned in the previous section. This makes the RFP market-leading.



The situational analysis allows for quick and easy comparison of actual scenarios with the TMS's actual results. This may seem natural, but shippers who do not have a tier-1 TMS often find themselves with averages or can't even access the actual data. This raises the bar for optimizing results that cannot be managed in Excel spreadsheets.

REPORTING

TMS software platforms today offer greatly improved standard and customized reporting. Reporting can be done on a pre-defined schedule or on an as-needed basis. It can also be provided via web portals, or a combination thereof.



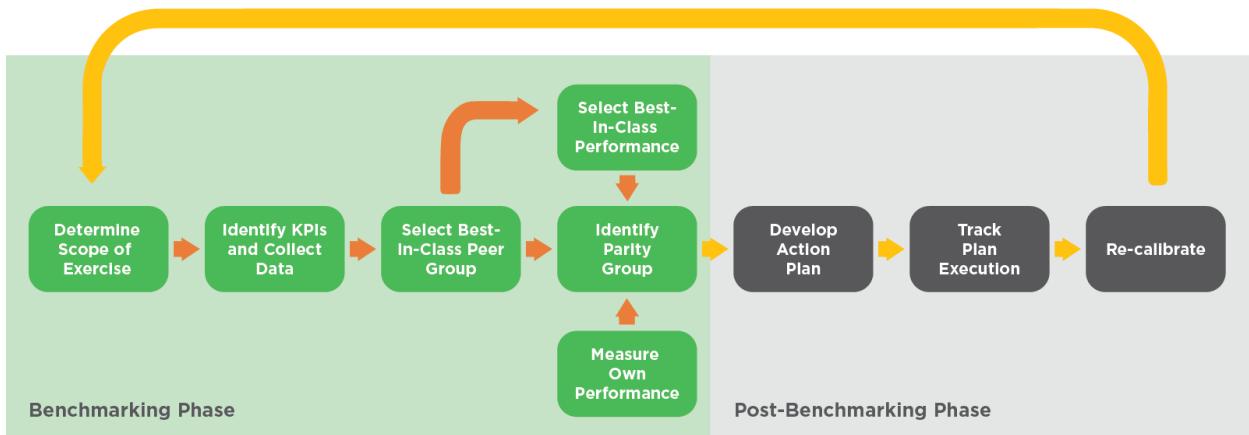
Reports can be financial, customer service, or operation-oriented. Companies have the power to choose which data to report on, based on their KPIs. The information can be sent to customers and vendors in a customized report with their logo and specific nomenclature.

The TMS can be viewed in any way you want, whether push, pull, or ad-hoc. It will improve the organization's logistics and supply chain management.

BENCHMARKING

The days when you could spend \$10's of thousands of dollars on analysis and get a small amount of information, or averages-of averages, are long gone. However many companies continue to use large logistics and consulting firms that charge upwards \$50,000 for analytics. InTek Freight & Logistics can do the analysis or the annual RFP at a fraction of the cost and with better results.

Benchmarking Methodology



A TMS that is effective will combine best-in class benchmarking to help a company compare against its competition. This is not what most companies do. Brokers have the opportunity to compare contract terms and obtain better carrier rates by using benchmarks. It provides insight into who does it well and what companies can do to improve their competitive edge.

TECHNOLOGY STRATEGY, DESIGN, AND INTEGRATION

TMS software compiles data that is not only useful for day-to-day operations, but also helps companies to evaluate long-term strategic directions. The software has made optimization much more efficient than ever. This allows companies to take advantage of additional pooling, consolidation, and round-trip opportunities. The TMS gathers all data necessary to create flywheel-like effects on the optimization of all logistics and supply chains.

FINANCIAL PLANNING AND STRATEGY

A TMS's primary goal is to reduce [freight costs](#). This can be achieved through many functions in the TMS. This goal is often the most important for over half of TMS purchasers. We will spend more time discussing the topic of savings and how it can be achieved through a TMS.



FREIGHT AUDIT & PAY

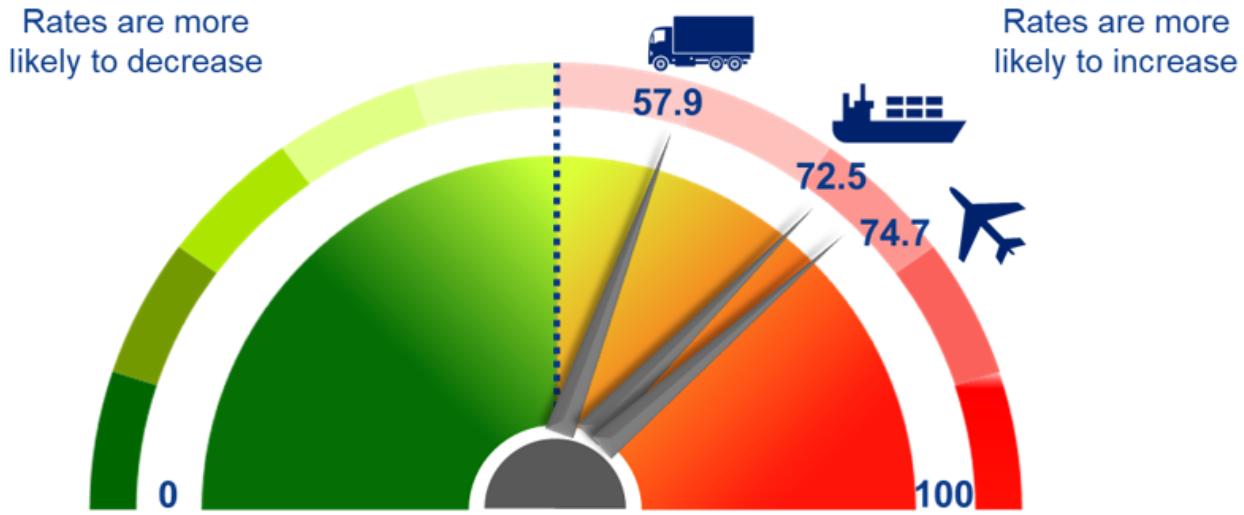
Due to the complexity of freight and audit pay, due to the number of transactions and pricing variations required documentation is required. TMSs simplify the process of comparing load rates at tender and acceptance phases of shipment. They also validate the paperwork that was sent by the carrier.

InTek's TMS system simplifies the document management process. The documents that are associated with each shipment are collected during [audit](#) and uploaded to the shipment after payment rates have been approved. This is possible because the carrier's invoice, as well as any back-up documents, are sent to the TMS via email. The TMS scans the paperwork for any errors and then extracts the necessary information to audit the bill using optical character recognition (OCR).

Shippers and freight brokers who create an invoice for their customer using the carrier back up documents and invoice have the option to remove the [carrier invoice](#) immediately and slide in the customer invoice. The electronic invoice is sent immediately, which allows for seamless transactions that don't require any additional work from the accounting department.

REDUCE FREIGHT EXPENSES

Freight cost savings can range from 3% to 12 percent for TMS users.



YOU GET FREIGHT SAVINGS:

- A better RFP process
- The Waterfall tender process in which carriers are selected from the lowest to the highest cost.
- Spot rate capacity is more readily available on public load boards and internally developed load boards by approved contracted freight carriers.
- [Automated route](#), rate and freight mode optimization
- Use of analytic and reporting tools.

TMS's powerful technology automates these processes and makes them part of every day execution of freight plans.

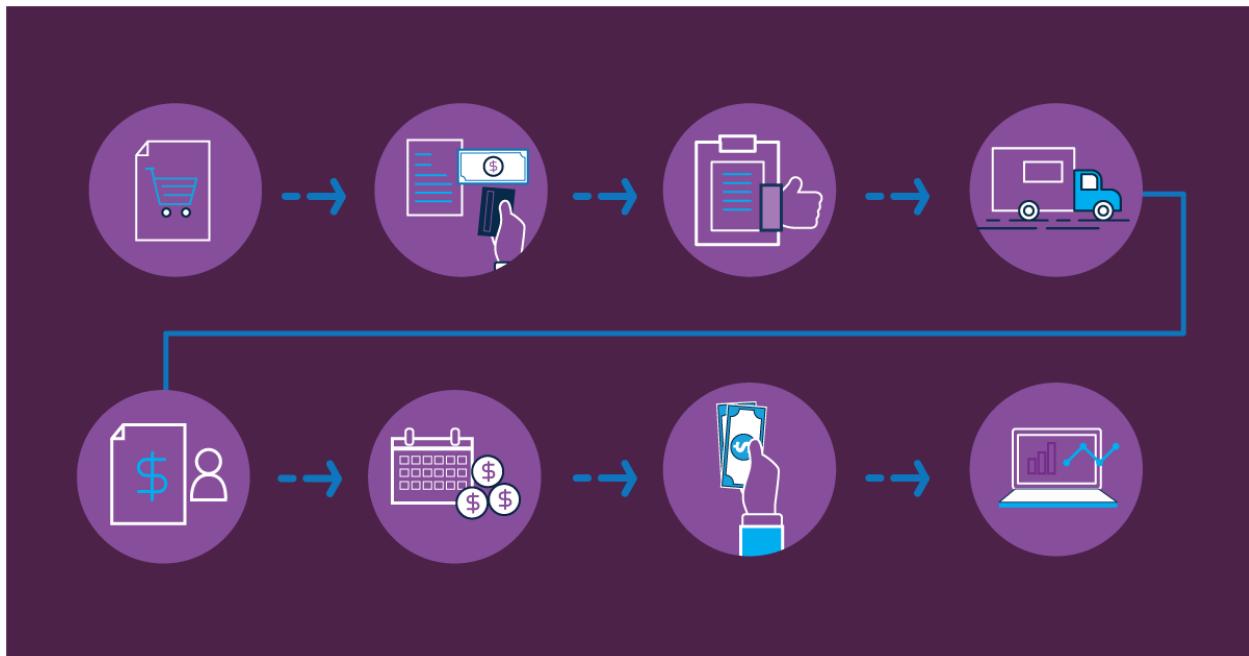
OPERATIONAL EFFICIENCY INCREASED

A TMS can help companies save on average between 2% and 5% in operating costs. Although the 2% to 5% savings may seem insignificant, it is important to remember that this applies across all functional units and not just the freight section.

IMPROVEMENTS IN THE ORDER-TO-CASH CYCLE

TMSs have a direct effect on improving companies' order-to-cash processes, which allows them to invest in their future and grow.

TMS software eliminates all manual components from the order process until the product is delivered to the customer. This makes it a more efficient use case and allows for full transparency so that any issue can be quickly identified and corrected.



INVENTORY REDUCTION

Supply chain success is dependent on the ability to forecast inventory. TMS software can help suppliers plan the inventory they will use, and give them peace of mind knowing that loads will be picked up on time. It streamlines the process and helps companies avoid overstocking or creating a safety stock figure in their forecasting and procurement models.

AUDIT TRAIL PROCESS

TMS allows companies to track their shipping processes by placing a date and time stamp on each transaction, starting at the order point to the final payment from the customer.

The logistics process will be positively influenced if there is a physical record of all the processes. If there are errors made in the process, users can return to the origin. This will allow them to train or correct the entire process.

Shippers are bound to encounter freight bills and other charges from time-to-time. However, they can be quickly resolved by using the TMS audit trail.

TOP TRENDS IN TRANSPORTATION MANAGEMENT SOLUTIONS

TMS software is a solution that allows companies to achieve their goals faster, more accurately, and with a lower budget. It also enhances the customer experience. TMS software has a higher market potential, although it is still quite low, as we mentioned earlier.

As TMS software improves, we believe that the market will grow. We will be reviewing some of the emerging trends in TMS software design and TMS software in 2019, and beyond.



Trend #1: Tighter, Securer and Faster Integration Advancements

The internet and its connection technology offer many benefits, including greater accuracy and transparency. They also provide supply chains with greater efficiency and security. This allows complex supply chains to run smoothly.

Blockchain technology will replace the current supply chain system with dinosaurs.

Blockchain is a distributed digital ledger. Blockchain can be used in logistics and supply chain transactions. Although the application is built around currency, it can also be used to track and pay for contracts and exchanges.

Through its digital ledger, supply chains have unparalleled security. The system tracks transactions and there are always transactions that offset each other, just like accounting ledgers balance. This balancing establishes a strict chain for controlling transactions that move through a supply chain.

There are many other instances where the chain command system for products and integrity of transactions can be used, but the best example is the pharmaceutical and food industries. They need to know exactly where their production runs end up being consumed on the market.

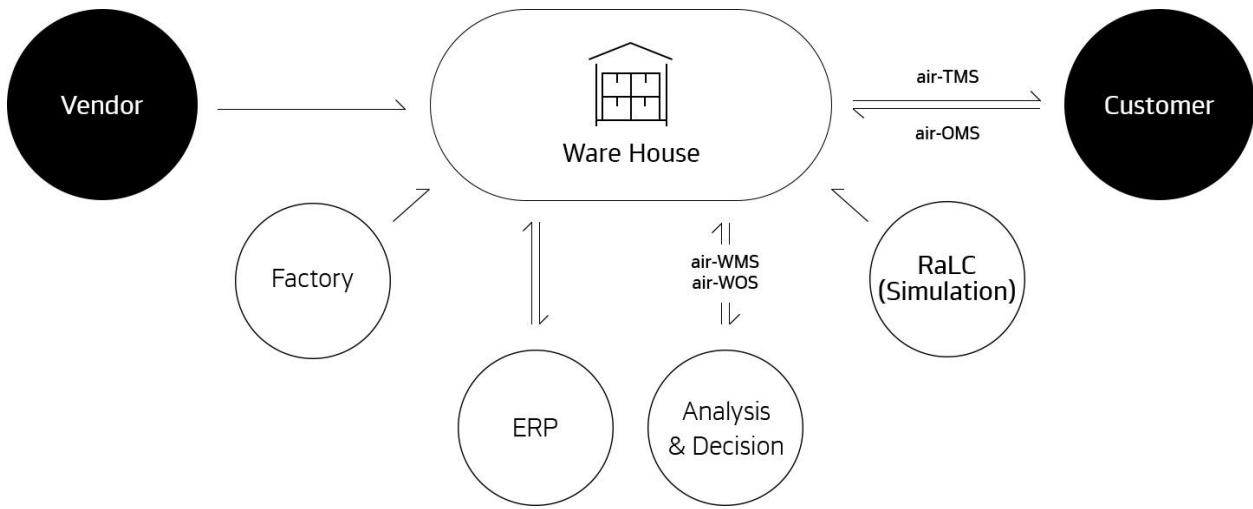
Blockchain is able to quickly process payments and change ownership, which reduces friction in the global economic system.

Trend #2: Tighter integration of OMS, ERP, and WMS into the TMS Platform

The TMS platform will be beneficial to all types of firms. A TMS can communicate easily with enterprise resource planning (ERP), order management systems (OMS) and warehouse management systems (WMS). These systems are essential to any company's ability to take orders from customers and move them through the supply chains as quickly as possible. They also communicate the progress of the order, from initial to final delivery.

Although outbound was the main driver of TMS systems' use, it has become a central component in managing an organization's inbound supply chains.

Companies can connect to all major platforms, giving them a complete supply chain optimization and [logistics strategy](#). This involves tightening internal and external systems until the TMS is the primary hub for all supply chains tactical and strategic moves.



Trend #3: Increasing Transport Modes in Shipments

Consumer customers often require packages of any size. This is why companies sometimes need to switch to an Omni-channel distribution strategy. Everything can now be ordered online thanks to e-commerce. These omni-channels are essential for adapting to increased shipments (products) or smaller shipments.

To optimize all freight modes and channels, intermodal, full [truckloads](#), LTL, parcel and parcel are becoming common features. This is made even more important by the addition of inbound and outbound functionality, which was discussed earlier.

TMS also supports multiple languages and allows for global shipping.



Trend #4: AI/Machine Learning Enhancements for Management Capabilities Within the TMS

Companies can revolutionize their business processes with artificial intelligence (AI) or machine learning that is integrated into TMS software solutions.

Today's TMS can handle huge amounts of data using AI and machine learning and reveal the most important information to its users. The system's algorithms, which are designed to interpret the data and produce positive results, evolve over time to offer more intelligence than you could ever imagine.

AI provides insight that improves forecasting. This in turn allows vendors to communicate better with customers and create production plans for product requirements. The final result improves customer experience and maximizes company assets. AI/machine learning bring additional intelligence to the TMS system, allowing them to identify and make changes on the fly in ways that humans cannot.

These capabilities are part of the TMS design and give shippers insight into what to do, when to do and how to fix errors. This ultimately affects customer profitability and profits.

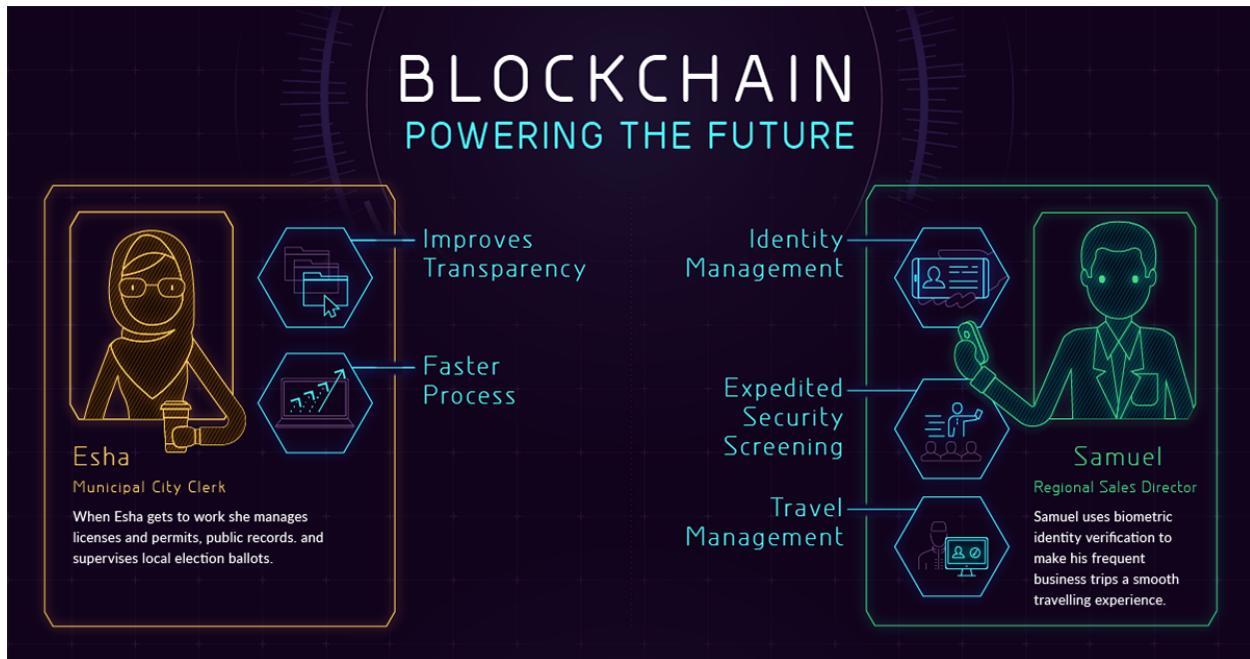
Trend #5: More Market Resources Available to Enhance Companies Using TMS

Technology continues to enhance the collaborative qualities of the TMS. While the earlier discussion about connectivity focused on internal systems, there are more discussions on connectivity that relate to external systems. Many companies offering operational system support to logistics teams are available to help them tap into freight capacity . They also provide settlement and document management, ease [freight rating](#), and more transparency in tracking and tracing.

It is becoming easier and more simple to provide supply chain services at a higher level to companies of any size, thanks to the increasing number of online companies. The benchmarking data collection companies keep improving their database, making it easier for logistics companies of any size to help businesses. They can help companies find the best rates on the markets in which they operate, and also provide a way to quickly create a RFP for these rates.

Trend #6: Blockchain is the Future

The term blockchain is very common in the technology industry. Both public and private blockchain capabilities are now available and easily accessible for everyone. Walmart is one example of a company that has encouraged its shippers to explore blockchain in their produce shipments to improve security and freshness.



Trend #7: Moving to the Cloud

TMS software providers, like other platforms, are moving quickly to the cloud. Companies of any size can access the cloud platform at a competitive price. SaaS is a new option in the market that allows users to pay only what they need.

The cloud software architecture also allows for scalability, so companies and users can grow into it. This makes TMS implementation much easier and less costly.

Trend #8: Control Tower

The TMS will continue to evolve as a control tower for all activities in a logistics and supply chain strategy. We can also see autonomous trucks and platooning entering the market. The TMS will be integrated with other entities beyond its four walls and be used as a traffic control tower for the equipment on the roads.

TOP TRANSPORTATION MANAGEMENT SYSTEMS & FUNCTIONALITY

TMS systems were essentially a track and trace software that could be used to rate shipments. TMS systems today integrate all aspects of a company's supply chain, which is why this guide has been so successful.

Modern TMS systems can process a lot of data in order to optimize shipments. Over time, they can also distill historical information into useful information that can be used to create the supply chain of tomorrow.

A TMS functionality can be used to manage the different aspects of a supply chain. It is broken down into the following categories.

- Carrier Management
- Procurement Management
- Optimize Route and Load
- Freight Execution Platform
- Reporting, Analytics, Visibility
- Supply Chain Communication Platform
- Repository of Logistics and Supply Chain Data
- Freight Settlement for Audit & Pay
- Invoicing Functionality
- Business Intelligence (BI).

These categories are pretty self-explanatory so we won't go into detail about them. Instead, we will focus on the best TMS software providers and systems to assist in your TMS purchasing journey.

Gartner Consulting publishes the Magic Quadrant, a detailed comparison report that covers a variety of software and related markets every one to two years. These reports are based on their proprietary qualitative data analysis methods and are the standard by which all IT companies strive to be included. Gartner Magic Quadrant reports are extremely valuable for software and service buyers.

LIST OF TOP TRANSPORTATION MANAGEMENT SYSTEMS (TMS).

- 3Gtms
- BluJay
- Cloud Logistics
- Descartes
- JDA
- Kuebix
- Manhattan
- MercuryGate
- Oracle
- SAP
- TMC
- TMW

- **Transplace**

Gartner has identified three leaders in the TMS software market: SAP, JDS, and Oracle. Each of these three software products come with a high upfront cost and high ongoing support and implementation costs. These three are typically only implemented by the largest shippers and third-party logistics service providers.

Because of their strong functionality capabilities, large shippers still use MercuryGate and BluJay for their TMS platform. These TMS software packages can be used by shippers of any size. However, BluJay or TMC are designed for managed transportation buyers so there are some restrictions.

The "Top TMS Listings" list each TMS with their pluses as well as their minuses. This is briefly summarized below.

3GTMS

- The industry's newest name.
- TMW partners to help fill in some of its needs.
- Primarily North American-focused.
- Their customers are primarily small- to medium-sized shippers, as well as 3PLs.
- It does not currently support international air and ocean rail, but it would not surprise if it was.

BluJay Logistics

- This TMS can be used as a standalone service or managed TM services.
- Strong capabilities, both domestically and internationally.
- BluJay also offers additional BluJay supply-chain execution packages as an add-on to the TMS.
- Their customer base is dominated by mid-sized shippers and 3PLs, but they can support larger shippers.

Cloud Logistics

- Another rising star in the industry.
- Truckloads are primarily domestic.
- Rail, international ocean, and air are not currently available, but they will continue to improve their functionality.
- The total cost of ownership (TCO) is very low.

Descartes

- This TMS can be used as a standalone service or managed TM services.
- Strong capabilities, both domestically and internationally, for shippers and 3PLs that support all freight modes.
- TCO is quite competitive.

JDA

- Largest independent SCM suite vendor.
- A robust platform for large, complex shippers and third-party logistics companies.
- Global supply chain management.
- Compared to other TMS platforms, the total cost of ownership (TCO), is high.

Kuebix

- TMS was developed on the Salesforce platform.
- It has a large customer base and many smaller shippers due to its freemium TMS offer.
- Although primarily a TMS software company they do offer managed TM services using their TMS platform.
- Mostly US-focused with international and domestic capabilities.
- Continue to expand its capabilities.
- The total cost of ownership (TCO), is competitive.

Manhattan

- A strong history that goes back nearly three decades
- TMS is ready to go with integrations into Manhattan's supply chain applications.
- This product was sold more as an addition to their warehouse management software (WMS). TCO is high.

MercuryGate

- Our customer base is predominantly North American.
- This platform supports both domestic and international freight modes for all companies.
- It continues to expand its capabilities.
- The best optimization and rating engine.
- The cost of ownership is affordable.
- Buyers should be aware of the flexibility available and how to maximize it over custom coding.
- TMS supports 3PL, shipper, broker, and private fleet companies.

Oracle

- A robust platform for large, complex shippers and third-party logistics companies. However, it is also working its way to medium-sized shippers or 3PL's.
- Very well manages global supply chain requirements.
- Compared to other TMS platforms, the total cost of ownership (TCO), is high.

SAP

- Robust platform with integration to its enterprise resource planning (ERP), and supply chain management software (SCM).
- Platform for large and complex shippers, and 3PL's.
- Global supply chain requirements are well managed.
- Descartes partners for some functionality with carrier communications
- The total cost of ownership (TCO), is higher than the various TMS platforms.

TMC

- TMS and TMC were created by the software that supported its brokerage division.
- A robust TMS that supports all types of domestic and international freight.
- A standalone TMS or managed TM solution. However, it is more well-known for its strong managed TM service.

- Pricing can be confusing for standalone TMS users. Ask the right questions and vet well.
- Focused on large and medium-sized shippers.
- The total cost of ownership (TCO), is in the mid- to high range.

TMW

- Strong TMS that can support shippers and 3PLs with non-asset and their internal fleet. However, they tend to be more successful in finding the solution in carriers and brokers.
- Primarily domestic focussed in North America.

Transplace

- They are most well-known for their managed TM option but they have been quick to move quickly to make their TMS a standalone platform.
- North America is a country that is both domestically and internationally focused, but internationally can be achieved through a partnership.
- The total cost of ownership (TCO), is considered to be fairly affordable.
- Large to medium shipper base.

TRANSPORTATION MANAGEMENT SYSTEMS COST

There are four ways to divide the cost of a transportation management program:

- Implementation costs
- Initial Investment
- Permanent Licensing Ownership
- For ongoing support costs

Cloud-based TMS software solutions have reduced the costs of all four categories compared to licensed software. We recommend that buyers choose a cloud platform to get the best value for money.

COST OF IMPLEMENTATION - COMPONENTS

The formula for calculating implementation costs is based on these items:

- Number of external and internal users
- There are many integration points between internal and external systems.
- Total number of carriers.
- Number of carriers that can be electronically linked to the TMS
- Number of customers
- Required number of TMS modules
- Modifications are possible.

The implementation cost of TMS will increase if the above numbers are higher than the actual costs. This is where larger TMS providers often charge the highest prices. Buyers should be aware of this.

Custom modification requests fall under implementation costs. We recommend that you map your current and future states to determine whether custom programming is necessary. With an eye to preserving 100% of the base product, we would also recommend this. A small modification to future processing is often enough for the buyer to

avoid a modification. A custom system modification can sometimes cause problems when upgrading. Sometimes, it may be impossible to upgrade. If it can't be done, it will incur increased costs.

A change in the direction of system requirements can often have an immediate implementation cost. It is important to do your homework upfront to avoid any changes.

ALL OTHER COST CONSIDERATIONS

Each TMS software company has its own licensing and initial investment costs. It is important to fully understand the cost of the TMS software. Many TMS products have many components, which allows buyers to choose the best option for their needs.

Other than cost considerations, buyers will need to purchase additional software packages in order to access some TMS functionality. This category includes the SMC3 CZARLite ratings tables, PC Miler, and similar products.

WE RECOMMEND A CLOUD PLATFORM FOR ITS LOW COST OF OWNERSHIP AND MINIMAL IT SUPPORT.

CLOUD TRANSACTION PRICING

Cloud platforms can either charge monthly fees per transaction or a set of transactions.

Based on the number of transactions, the transaction cost for a cloud TMS typically ranges between \$1.00 and \$4.00.

Although there are some free TMS systems, we warn you that there is no such thing. These systems are able to make a lot of money by tying users' hands and forcing them into using their contracts. This is not always the best thing for users. The functionality is also not as robust, so buyers end up paying more for their "paid" TMS.

Last but not the least, consider hiring an outside TMS integrator for cost consideration. This will help you to plan the project, create a [roadmap](#), ask the right questions, find the best solution, and then train and integrate the users.

This is what an integrator does for a living. They follow a proven process to successfully implement TMS software. For items such as testing, training, and other services, the costs are usually lower than if you go directly to the TMS software vendor. They can also be a champion for the buyer and help them find the right answer. A TMS integrator will bring additional resources to the project as it requires extra effort that is often not possible in the company's logistics department.

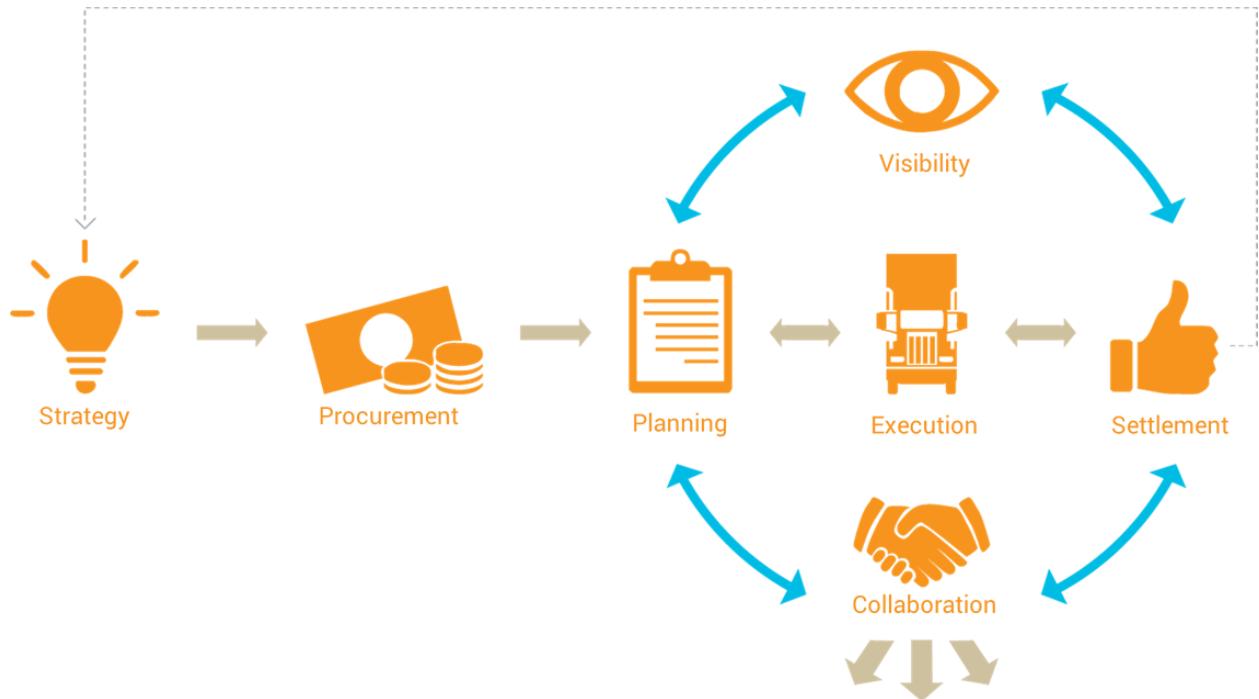
The TMS vendor will often suggest that an integrator is brought in to the project. They will also have several recommendations, so make sure you ask.

Keep in mind, however, that implementing a TMS can be complicated due to its broad reach across an entire company. These issues are discussed in the Top Ten TMS Implementation Mistakes to Avoid and Top Twelve TMS Implementation Best practices to Prevent Failure.

IMPLEMENTATION TMS

Let's now move on to the actual integration.

Remember that this is a change management implementation. Take into account strategies around "change management". This means that the implementation of a TMS starts before you even pick the software vendor.



THE FIVE KEY STEPS TO IMPLEMENT THE ABOVE ARE NOW CLEAR.

Step 1: Define the goal against which the project will be measured

Step 2: Get involved with stakeholders

Step 3: Create the General Timetable Plan

Step 4: Assign a Project Leader and Prepare for Change

Step 5: Assemble the Requirements Document

These 5 steps are key to getting started on the right foot. Each project needs goals to set and measure against in order to determine success. Every stakeholder within and outside the logistics and supply chain teams needs to have a say. A realistic timetable must be established. The project leader should be the strongest and most communicative person and be 100% responsible for the project. Finally, a requirements document must be created with input from all departments.

It is important to weigh the requirements document so that it can be objective and not subjective.

Step 6: Map current processes

Step 7: Begin the Evaluation Process with Lots of Education to Determine the TMS software vendors to include in the RFP

Step 8: Compare your design and best fit against the TMS Software Providers responses to the Requirements document and the Pricing Proposals

Step 9: Start the Selection Process

Step 10: Strict Selection Process to the Top 2 - 3

Step 11: On-site Visit

Step 12: Weight the Plus/Minuses

Step 13: Compare the new process with old processes to identify any potential shortcomings.

Step 14: Present the Recommended TMS to the Stakeholders Committee For Approval

(If the Recommendation is rejected, return to step 12 and keep returning to committee until a decision is made.

Step 15: Negotiate final pricing details that may exist

Step 16: The actual implementation process begins

Step 17: Create the details of the project with regular meetings with team members and every two or three weeks check in with the Stakeholder Committee. The size and scope of implementations will affect the Stakeholder Committee review. Some implementations can only take 4 to 5 weeks.

Step 18: Final testing, training and acceptance testing (Testing is ongoing throughout the process. This is the final testing phase, which examines each scenario and shipment process from end to end.

Step 19: Use the System in a thoughtful way (No BIG BANG).

Step 20: The System is Completely Implemented

Step 21: Make adjustments to the Final TMS Performance versus Goals

Step 22: Continuous Evaluation against the Best in Class, New Functionality, and Adjust as Needed

Step 23: Create a detailed project plan to adhere to the Over Project

Step 24: Assign Responsibilities To The Project Plan

OTHER NOTES AND POINTS TO CONSIDER:

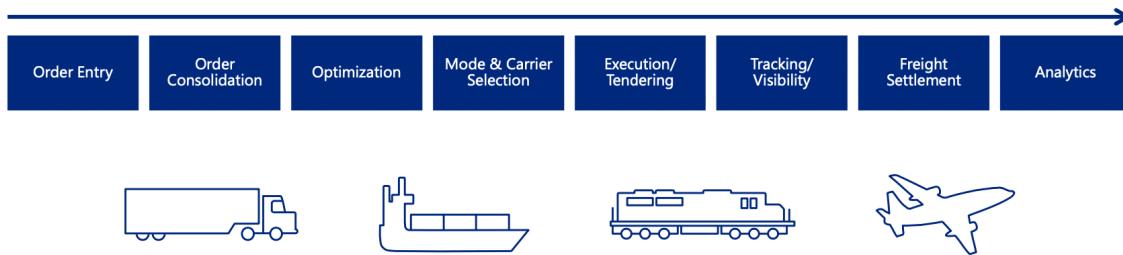
- It is impossible to design for every situation. TMS shouldn't be customized. Instead, use standard operating procedures (SOP) to manage expectations and standardize coding.
- Data cleanup is essential. This is a difficult task that can't be done quickly. This applies specifically to:
 - Rates
 - Transits
 - Routing guides
 - Specifications for Customers

- Vendor Specification
- Localities
- Specifications for products that include weights and cubs or pallets
- It is important to test.
- It is important to understand that a TMS project may encounter roadblocks. Therefore, prepare your team for these obstacles and how you will overcome them.
- Pick the right Project Leader and give them your full attention to the project.
- Make sure you choose your team members carefully and let them know that they will need more time to complete their jobs and the project.
- Consider bringing in an integrator to your project, for additional resources, and all other items mentioned earlier.

DIFFERENCE IN TMS & MANAGED TRANSPORTATION SERVICES

It was impossible to buy a TMS, or outsource logistics functions through LSPs that already have the TMS technology, ten years ago. However, Managed TMS has seen significant growth over the past decade.

There are many types of managed TMS. However, the main difference between an MTS service and a TMS platform is that the shipper outsources their freight activities to a logistics provider. This includes the TMS platform, as well as the management of all freight work, from tender to freight pay, audit and settlement.



TMS helps automate and integrate these processes

Although managed TMS may not be for everyone, MTS is for those who are ready to invest. It brings together the best of the breed solutions by partnering your company with a logistics provider (LSP), that has the market knowledge, technology, and people. The company can now focus its resources and time on the best things it does for its customers with the LSP in place.

A LSP is able to implement a solution quickly and efficiently for every shipper, which makes it faster and more efficient.

There are many advantages to outsourcing logistics work to LSP. However, it is not for everyone. It is worth taking a look before you dismiss it completely. A hybrid outsourcing option to an LSP would allow companies to insure their work within three years without the need to install another TMS. The LSP would transfer the TMS to the company during the transition.

Shippers can find out the cost of managed transportation services in this article: "How Much Does Managed Transport Service Cost?" A Comprehensive Pricing Guide". This article outlines the costs of implementation and what you can expect to pay for the monthly management fee.

WE RECOMMEND THESE COMPREHENSIVE ARTICLES FOR MORE INFORMATION ON FREIGHT MANAGEMENT SERVICES SOLUTIONS:

- The Complete Guide To Managed Transportation Service Solutions
- The Complete Guide To Freight Management Service Solutions



CONCLUSION

A transportation management system can be a game-changer for companies.

The TMS platform today functions more like a control center, encompassing all activities in a company's supply chain from vendors to final delivery to the customer.

A company can gain a competitive edge in the marketplace by optimizing its logistics and supply chain.

TMS software adoption is still very low. This means that there's no better time to gain a competitive advantage or risk losing your company to them.

We recommend that you choose a cloud-based solution for your TMS selection and bring in an integrator to assist you. Although the integrator is often seen as an additional expense, they are often worth it because they can complete projects on time and within budget. They are skilled and can help companies avoid costly overruns, change orders, and delays throughout the entire process. This makes them a valuable resource that pays off.

We'd love to have a conversation with your company if you decide to purchase a TMS. InTek is a MercuryGate Reseller, Integrator and ready to assist you in any way possible.