



# The Future of Travel & Expense Data Management

A Practical Guide For Travel Buyers

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# The Data Dilemma & Why Fixing it at the Source Matters

How much time do travel managers spend fixing data errors rather than making strategic decisions?

Managing travel and expense (T&E) data presents unique challenges for corporate travel managers and finance teams. Organizations face a constant battle against data fragmentation, inaccurate reporting, and compliance risks, with information scattered across corporate travel agencies, expense platforms, corporate credit card providers, and financial systems.

Simply collecting and consolidating travel data is no longer enough. Companies need real-time visibility, automation, and proactive insights to run travel programs, control costs, and ensure compliance.

**The real problem?** Many companies try to fix data issues after they've already caused disruptions—leading to manual corrections, inconsistent reporting, and lost savings opportunities. The most effective strategy is to address data quality at the source, ensuring accurate, structured data from the start, rather than scrambling to fix bad data later.

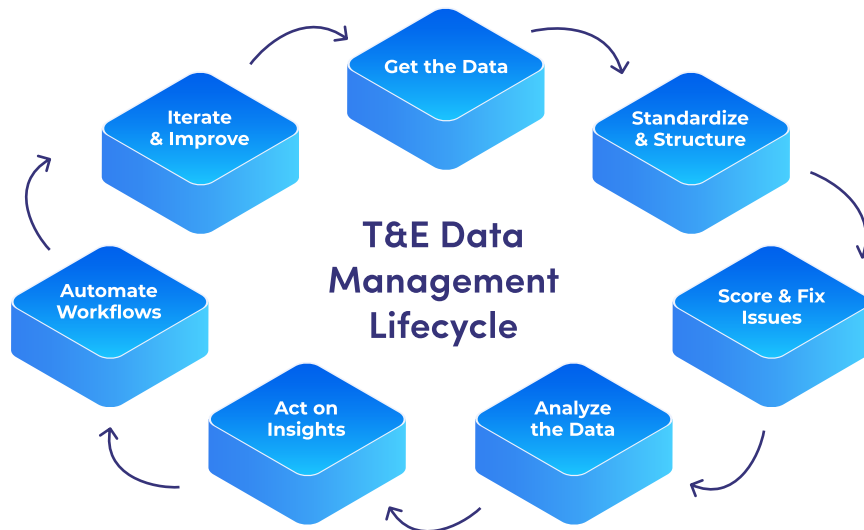


**Explore a practical guide to T&E data management**, with step-by-step insights into solving common data challenges. Since most travel buyers aren't data scientists, this is designed to be a clear, actionable resource that helps travel managers, finance teams, and procurement professionals gain control over their data, reduce inefficiencies, and make smarter business decisions.





# A Practical Framework for T&E Data Management



## 1. Get The Data

T&E data management starts with gathering a complete, accurate dataset—capturing all relevant sources to create a single source of truth for travel and expense decisions.

This includes:

- TMCs (Travel Management Companies)
- Expense management platforms
- Corporate card providers (with enriched merchant category data)
- HR systems (for employee profiles and department alignment)
- ERP integrations (for financial reporting and budgeting accuracy)
- Direct supplier feeds (e.g., airlines, hotels, car rental agencies, ride-share services)
- Online booking tools (OBTs) (used for self-service reservations)
- Aggregators (e.g., GDSs, third-party travel booking platforms)
- Sustainability tracking platforms (for carbon footprint reporting and ESG compliance)
- Off-channel bookings (captured via providers like Traxo or Cvent)



Gather key data details early to avoid gaps later. Travel buyers may not always have full visibility into missing fields, so collaboration with finance, IT, and data teams is essential. Together, they should identify key data sources, confirm system integrations, and document critical fields, including the data structure or dictionary, location coverage, and technology stacks; such as TMCs, GDSs, direct connects, aggregators, and online booking tools.

## Use Case: Exception Reporting & UDID Standardization Issues

UDIDs are inconsistent across vendors and regions, making it difficult to standardize travel data. Many travel managers assume they need to enforce a universal UDID structure across all vendors, which is nearly impossible.

### Scenario:

A company can discover that their European TMC stores cost centers in UDID 97, while their North American TMC stores them in UDID 12—leading to reporting mismatches and compliance issues.

Instead of trying to force adoption of a universal UDID format, the company can map these differences into a standardized data model, significantly improving data quality while reducing reconciliation time.

### Key Takeaway:

Reliable travel data starts at the source. Without a complete, well-structured dataset from TMCs, expense platforms, corporate credit card providers, and financial systems, reporting mismatches and compliance gaps arise. Standardizing at the point of collection ensures accurate reporting, policy enforcement, and cost optimization.



## 2. Standardize And Structure The Data

Travel data is rarely uniform across suppliers, systems, and regions. Each supplier structures its data differently, leading to variations in field placement, coding formats, and categorizations, especially when merging airline, hotel, expense, and payment data. Without a clear mapping strategy, reporting mismatches and integration failures are inevitable.

- A practical approach is to start with the supplier that has the most complete or widely used data structure (often the primary TMC or ERP system).
- Align supplier data by mapping it to a standardized framework, modifying where necessary to ensure consistency.
- Keep a well-documented mapping process to maintain consistency as new suppliers and data sources are added.
- Use a standardized data model that accounts for common fields such as reason codes, cost centers, vendor names, and booking categories to ensure compatibility across platforms.
- Avoid altering the original records directly, as changing them can create inconsistencies that lead to reporting, audit, and servicing issues down the road. Instead, focus on mapping and aligning data structures for consistency.





Rather than enforcing stricter policies, the company adjusts its preferred vendor list, improves internal rate coding processes, and follows up with its TMC and hotel partners. As a result, policy compliance improves by 15% without increasing enforcement measures.

### Key Takeaway:

Data analysis alone isn't enough—organizations must act on insights to improve policy enforcement, cost control, and vendor negotiations. Turning insights into action leads to sustainable improvements in travel program management.

## 6. Automate Workflows

Turning insights into action is most effective when key processes are automated. Workflow automation helps organizations ensure that policy enforcement, reporting accuracy, and compliance tracking are seamless, scalable, and consistent across all systems. By integrating automated solutions into T&E management, companies can eliminate inefficiencies, reduce manual errors, and improve policy adherence in real-time.

### How Organizations Automate Travel Data Management

- Set up automated alerts and exception flags for policy violations, vendor performance issues, and data gaps.
- Integrate workflow automation across TMCs, ERPs, and expense platforms to ensure real-time data synchronization.
- Auto-classify transactions based on pre-set policy rules to reduce manual intervention and improve compliance.
- Trigger corrective actions (e.g., reassigning expense categories, notifying approvers) to ensure accurate financial reporting.



## 5. Act On Insights

Collecting and analyzing data is only useful when it leads to action. Insights from travel and expense (T&E) data should drive proactive decisions that improve policy compliance, cost control, and vendor negotiations. By acting on data-driven findings, companies can correct inefficiencies, adjust policies, and optimize their travel programs before issues escalate.

### How Organizations Act On Travel Insights

- Optimize travel policies by identifying where compliance gaps stem from operational issues vs. traveler behavior.
- Adjust preferred vendor lists based on real-world booking patterns and supplier performance.
- Proactively address budget variances by acting on spending anomalies before they impact forecasts.

### Use Case: Improving Policy Compliance With Actionable Insights

Many companies assume low travel policy compliance is due to employee behavior. However, analyzing exception trends can uncover deeper operational issues that, once addressed, lead to higher compliance without additional enforcement.

#### Scenario:

A company analyzes policy compliance data across travel categories and finds that while air and ground travel compliance is high, only 30% of hotel bookings follow negotiated rates.

By acting on these insights, they uncover:

- Preferred hotels lack availability in key regions, forcing travelers to book off-policy.
- Departmental disconnects between policy and business needs result in lower compliance rates.
- Travelers book at preferred hotels but contracted rates aren't being applied, leading to inaccurate reporting.





- Detect compliance risks before they escalate into policy violations.
- Use historical data to forecast travel budgets and anticipate fluctuations.
- Pinpoint anomalies that could indicate data gaps, misallocations, or reporting errors.

The sheer quantity of data can be overwhelming. Focus analysis on specific problems that need solving.

## Use Case: Accuracy Gaps In Travel Data

Travel buyers rely on structured data to justify next year's travel budgets, optimize spend, and improve vendor negotiations. However, missing or inconsistent cost center details create inaccurate spend projections—causing misallocated budgets and unnecessary financial risk.

### Scenario:

A company finds that 20% of its transactions lack cost center details, leading to inaccurate departmental allocations and budget discrepancies. Without proper cost center coding, finance teams can't allocate expenses correctly, causing budget overruns and misalignment with actual department-level travel spending.

By analyzing their existing data and flagging incomplete records, companies can identify missing cost center assignments before reconciliation. This results in more accurate forecasting and a secured, realistic budget for the next fiscal year—allowing finance and travel managers to make informed, data-backed spending decisions rather than relying on assumptions.

### Key Takeaway:

Data analysis ensures that travel and expense budgets are accurate, policy enforcement is strengthened, and financial decisions are made based on facts, not assumptions. Without structured analysis, companies remain reactive instead of proactive in optimizing their travel programs.



For example, consider a hypothetical company with \$5,000,000 in annual air bookings, where 10% of transactions (\$500,000) are NDC fares. If lost savings from non-NDC transactions typically average 20% (\$1,000,000), the company is left with a gap in visibility—unable to determine whether NDC fares provided better pricing, worse pricing, or no difference at all.

More importantly, without fare comparison data, there is no way to confirm if NDC fares were truly more cost-effective or if they led to higher spend and reduced policy compliance. This lack of visibility impacts budgeting, vendor negotiations, and enforcement of preferred booking channels.

Data scoring will show you how big the issue really is, and where that data is missing so it can be addressed holistically, or supplier by supplier.

### Key Takeaway:

Not all data is created equally; scoring and validation help identify gaps and correct inaccuracies before they cause issues. Assigning data quality scores and automating exception flagging ensures reliable, actionable insights while reducing manual clean-up.

## 4. Analyze The Data

Where the operational use of data is “in the moment,” analytics looks backward and forward to drive insights. Once data has been cleaned and standardized, the next step is to analyze it for patterns, trends, and insights that inform better travel and expense (T&E) decisions. Without deep visibility into travel spend and compliance gaps, companies risk missing savings opportunities, policy violations, and budget overruns.

Data analysis in T&E management helps organizations:

- Identify spending patterns to optimize vendor negotiations and rate agreements.



### 3. Score And Fix Data Quality Issues

Data scientists typically can spend 60–80% of their time on data cleaning, preprocessing, and transformation rather than actual modeling or analysis. That shows the importance and magnitude of the issues. Automation helps reduce the level of effort.

Data scoring evaluates data completeness and quality. It can be very basic, like the number of fields with no data, or more refined, like proper formats. The starting point is to quantify the issues, then rank them by scale and impact. Many systems can create business rules to automate the fixes.

- Evaluate data completeness and consistency.
- Use scoring models to detect inaccuracies and flag high-impact data discrepancies.

#### Use Case: Airline Fare Comparisons & NDC Transaction Gaps

NDC booking records do not capture fare comparison data, so companies lose visibility into potential cost savings and policy compliance. This also creates inaccuracies in Lost Savings reports because subtotals and totals either need to net out NDC transactions, which understates total spend, or include them which will understate the savings and compliance rates.

#### Scenario:

Many companies struggle with evaluating lost savings from NDC transactions because fare comparison data is often missing at the time of booking. Without this data, travel buyers face two challenges:

- If they exclude NDC transactions from reporting, they may understate their total air spend and misrepresent cost allocation.
- If they include NDC transactions without fare comparisons, they risk overstating cost savings or underestimating policy non-compliance.



## Use Case: Hotel Booking Data Gaps & Standardization

40–60% of corporate hotel stays are booked outside corporate channels, leading to higher rates, policy enforcement issues, and data gaps. Without accurate data, travel buyers struggle to negotiate corporate rates, track duty of care, and accurately report total spend.

### Example:

An organization compared booked data from their TMCs to expense report data and found that 30% of hotel bookings were off-channel, and that the average cost per stay was 28% higher. Not only did they spend more, but the missing data also prevented them from leveraging their full corporate buying power. By structuring and aligning hotel booking data, they quantified the impact by hotel chain and property, improving future negotiations and spend visibility.

Standardizing reason codes across suppliers can also determine how severe the exceptions are, whether due to lack of availability, lower rates elsewhere or inconvenient location vs. brand preference or loyalty. The actual reasons are usually the same or very close, but the codes and their location vary widely. Pulling all the data into a complete, standard database leads to better decisions on where to focus; for instance, on negotiation or traveler behavior.

### Key Takeaway:

Standardizing travel data eliminates inconsistencies, enables accurate reporting, and strengthens policy enforcement. A unified structure empowers travel buyers to make data-driven decisions with confidence.





## Use Case: Automating Compliance Audits to Reduce Policy Violations

Ensuring consistent travel policy enforcement requires organizations to track compliance in real-time—a task that is inefficient if handled manually. Without automation, policy violations often go unnoticed until reconciliation, leading to increased costs, misreporting, and compliance gaps.

### Scenario:

A multinational company struggles with travel policy enforcement due to delayed compliance reporting and inconsistent expense categorization.

- Employees frequently book out-of-policy hotels and transportation, which go undetected until expense reports are submitted.
- Manual audits are time-consuming and reactive, often leading to budget overruns before violations are caught.

To automate compliance monitoring, the company:

- Implements real-time policy enforcement by integrating automated approvals and exception tracking within their TMC and expense platforms.
- Configures AI-powered categorization tools to automatically flag non-compliant expenses before they are approved.
- Sets up automated audit workflows to ensure policy violations are flagged and corrected at the time of booking rather than during reconciliation.

This results in a 30% reduction in policy violations, improved forecasting accuracy, and a more efficient audit process—all without increasing administrative overhead.

### Key Takeaway:

Manual processes introduce delays, errors, and inefficiencies in travel management. By automating workflows, organizations can enforce compliance in real-time, optimize policy adherence, and reduce costs without adding administrative burden.



## 7. Iterate And Improve The Data

Travel data management is an ongoing process that requires continuous refinement. As business needs evolve, data strategies must adapt to maintain accuracy, compliance, and usability. Organizations that regularly audit and enhance their data quality gain a competitive edge in forecasting, policy enforcement, and cost optimization.

- Implement automated and manual periodic reviews to refine data quality and ensure continued compliance.
- Adapt data management strategies based on business needs and emerging challenges.

### Use Case: Why Rescoring & Continuous Improvement Matter

Even after implementing a structured data model, supplier changes, system updates, and evolving business needs can introduce new inconsistencies. Without ongoing refinement, organizations risk working with outdated or incomplete datasets.

#### Scenario:

A global company cleans and structures its travel data, ensuring that all cost center details are complete. However, months later, a major supplier updates its system, resulting in changes to expense categories and booking codes. This shift creates discrepancies in reporting, causing misalignment with budgeting and policy compliance.

By implementing a quarterly data audit and rescoring process, the company identifies these discrepancies early and updates its data mapping strategy—preventing reporting errors, avoiding cost misallocations, and maintaining compliance.

#### Key Takeaway:

Data quality isn't a one-and-done process. Even well-structured data can become unreliable as suppliers, systems, and policies evolve. Regular audits, re-scoring, and validation ensure that travel programs remain accurate, efficient, and aligned with business objectives.



# A Smarter Approach to Travel Data

Modern T&E data management is evolving beyond simple consolidation. The best approach prioritizes operational insights, automation, and proactive data conditioning to improve accuracy, efficiency, and compliance. Organizations that manage data at the source, rather than attempting to fix errors downstream, can achieve cleaner, more reliable data and drive better business outcomes.

## Key Advancements In T&E Data Management:

- **Real-Time Data Processing:** Unlike batch-based legacy systems, newer platforms provide live or near-real-time data streaming and reconciliation, ensuring immediate visibility and accuracy.
- **Enhanced API Integrations:** Seamless connectivity between TMCs, expense platforms, and finance systems eliminate data silos.
- **AI-Driven Data Cleansing & Automation:** Intelligent systems identify and correct missing or inaccurate fields in real-time. We are seeing a shift toward self-healing data pipelines that detect and resolve anomalies without human intervention.
- **Role-Based Access & Data Security:** Secure data handling ensures only authorized users access sensitive travel data.
- **Advanced Predictive Analytics:** Machine learning enables organizations to identify spending trends, optimize travel budgets, and enforce compliance proactively, rather than reacting to past data.





## Fix The Problem Before It Becomes A Problem

Data challenges in T&E management will persist as businesses grow and travel ecosystems become more complex. However, by focusing on structured data acquisition, scoring, and automation, organizations can significantly improve efficiency and compliance. Travel managers can apply these principles to their day-to-day challenges, and enable their organizations to gain greater control, visibility, and value from their T&E data.

## The Time To Evolve Is Now

Organizations that embrace next-gen travel and expense data management will gain a competitive advantage with automation, compliance, and real-time intelligence.

By leveraging structured frameworks like the **T&E Data Management Lifecycle**, companies can reduce inefficiencies, gain full visibility into travel expenses, and proactively mitigate compliance risks before they escalate.

**Don't Let Data Inefficiencies Hold Your Business Back.**

**Unlock The Power Of Seamless Travel Data Management Today.**

Cornerstone is leading this transformation with a **secure, AI-powered platform** built to help businesses streamline travel operations and unlock powerful insights.

Learn how **Cornerstone's Data Platform** can help you eliminate data gaps, enhance compliance, and gain real-time insights—so you can focus on strategic growth, not manual data fixes.


[Reach out to the Cornerstone Data Team to learn more.](#)

## About Us


With a history rooted in innovation, Cornerstone delivers solutions that integrate travel, spend, and data management into a single platform, enabling businesses to navigate the complexities of modern travel management with ease and precision.

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