tamr

Procurement Analytics

Optimize procurement decision-making by quickly gaining the deepest level of visibility into organizational spend - whether supplier, part, or service.

Procurement teams are continually trying to exceed performance expectations while operating in an increasingly complex and changing environment. There is ever-mounting pressure to drive out cost while ensuring the organization is being supported by reliable, trustworthy suppliers.

Quick and comprehensive insight into complex procurement operations enables better, faster decision-making – significantly improving performance. Analytics and reporting are key capabilities procurement teams employ to gain the needed level of insight that will allow them to exceed expectations.

Unfortunately, procurement lags behind other functions in the use of analytics. Often, their analytics don't provide deep enough context to make impactful decisions that will move the needle or they can't be pulled together fast enough to make timely decisions.

This is reflected in the challenges that most procurement teams face in gaining key insight from analytics and reports:

+ A procurement team has a set of analytics and dashboards but don't have the desired amount of detail or context (e.g. don't know if a one supplier is a subsidiary or can't analyze spend at the PO-level).

+ The team wants to produce more analytics but can't quickly access and prepare all of the information needed given their current approaches and technologies – ultimately deciding that the analytic or dashboard either can't be done or isn't worth the effort.
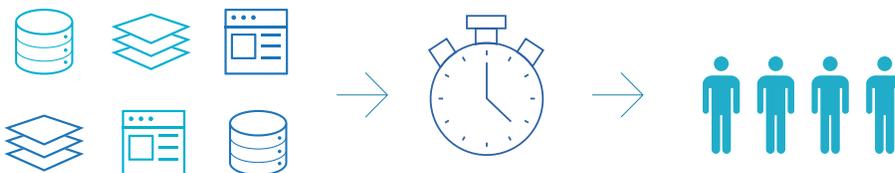
The Idea In Short:

+ The use of analytics drive improved decision-making and performance. Procurement teams lag in this capability – analytics are not detailed enough and / or slow to generate

+ Data preparation is the bottleneck in generating robust analytics quickly. Existing approaches like spend analysis tools and manual effort are too slow and only enable 'good enough' insight – this is due to the difficulty in dealing with data volume / variety, data quality, and classification issues

+ Tamr was purpose-built to eliminate the data preparation bottleneck and quickly generate comprehensive, accurate datasets that can be used for analytics or reporting

+ Tamr's unique approach to combining, cleaning, and classifying data that includes machine learning and expert insight – enabling the use of more data (internal or external) in the analysis and faster time-to-value

+ The platform is also very flexible and will fit into any enterprise environment -- extending and enhancing investments in ERP, Source-to-Pay, and Spend Analysis systems. For one customer, Tamr was able to analyze all $40 billion of spend data in just one week and identify over $100 million in cost-savings opportunities

Data Preparation Is The Core Challenge To Advancing Procurement Analytics

The root cause of these challenges is that preparing data for analytics is too cumbersome. Procurement teams either need to prepare the analytics manually (i.e. slowly and likely via Excel) or use traditional spend analysis solutions to get "good enough" insight. Essentially, the information is available; however, there's no great way to gain insight from it.

Common data preparation challenges include:

Data Volume And Variety

Critical spend data and other information is locked away in multiple repositories (both within and external to the enterprise) and in different formats, making combining these sources very difficult and a largely manual endeavor. Examples of the range of spend data includes accounts payable data, general ledger data, contract data, etc.

Data Quality

Even when data is combined, often times it lacks the quality that's needed to produce a highly effective downstream analytic or dashboard. Examples of this include the absence of core attributes about a supplier (e.g. corporate structure, credit worthiness, ownership breakdown) and inconsistent naming conventions for suppliers or parts.

Classification

When procurement teams finally achieve the ability to combine datasets and arrive at a comprehensive understanding of their spend, they often realize the final step to data preparation is equally as difficult to overcome – and that's classification of their spend. Most current approaches can only accurately classify data at a first (or possibly second) level – significantly limiting the ability to 'drill down' into categories for insight.

> Tamr provides the visibility needed to answer sophisticated procurement questions in a rapid time frame

Tamr Was Purpose-Built To Solve These Data Preparation Challenges

Tamr provides the visibility needed to answer sophisticated procurement questions in a rapid time frame. It does so through the elimination of the data preparation bottleneck and the quick generation of comprehensive, accurate datasets that can be used for analytics or reporting.

Tamr's approach to preparing data for downstream analytics is fundamentally different from traditional methods – which either heavily rely on manual effort or are largely rules-based.

The approach focuses on a unique combination of machine learning and expert feedback to combine, clean, and classify data sources – making the method more scalable, faster, and significantly more flexible:

Combining Data Sources

Tamr can natively connect to internal procurement systems that contain spend data – such as ERP systems, Source-to-Pay systems, or can even handle sources as simple as Excel spreadsheets. Moreover, due to the scalability and flexibility of Tamr's approach, it can even connect to external data sources used for enrichment – such as those provided by Thomson Reuters or Dun & Bradstreet.
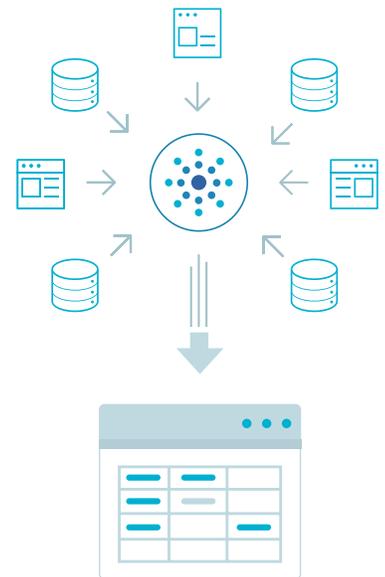
Once Tamr has connected to these sources and pulled in all relevant data / metadata, it uses machine learning to automatically connect the disparate datasets. This is achieved by aligning common attributes from source datasets through fuzzy matching. In many cases, primary key / foreign key relationships are not apparent when joining datasets. Often times this is due to inconsistent naming conventions of attributes. Tamr automatically identifies how to merge datasets through the use of automation. As an example, when analyzing spend data to generate a complete view of suppliers (which would include their addresses), a procurement team may see "Supplier Address" in one dataset and "Vendor_address" in another. Instead of needing to write rules that match those attributes, Tamr's machine learning algorithms can determine that these attributes are in fact referring to the same desired attribute and pull both sets of data into the operation.

When Tamr is not sure of a match, it uses feedback from experts in the customer's organization to validate whether or not two attributes are the same. That feedback is not only incorporated into the initial decision but also influences the model as new datasets are added – serving to enhance trust in the resulting combined dataset and further automating future matching.

Cleaning Data

In a merged dataset, there are likely a lot of duplicate records. Suppliers and parts, for example, may be named differently across ERP or Source-to-Pay systems. Much like attribute matching, Tamr uses machine learning to identify common records (or entities) within the dataset and eventually merge them to represent the entity in a single way and ensure downstream analysis is accurate.

In the example of generating a complete view of suppliers, source datasets may contain records related to a certain supplier but refer to that supplier differently in each case (e.g. a record for "John Smith Industries", "John S. Industries", and "J. Smith Industries"). In this instance, Tamr will assess each record and determine that they in fact represent the same entity and suggest that the user merge them. As with attribute matching, should Tamr indicate low confidence in a match, it will ask a customer's internal expert for validation.

Moreover, Tamr can handle enrichment of existing data through the integration of external data sources. As an example, if you have basic information about each of your suppliers but lack information around their credit worthiness or ownership structure, Tamr can integrate datasets from Thomson Reuters, Dun & Bradstreet, or other external suppliers as if they were the same as internal sources – ultimately generating a cleaner and more comprehensive view of suppliers.

Classifying Data

The final step in the data preparation process is often the most difficult – namely classifying the spend data. Companies usually choose between wanting their spend data classified according to UNSPSC or according to their own taxonomy. Tamr will perform classification of spend according to either. Through experience in procurement within various industries, Tamr has an understanding of how parts should be classified. The work needed to adapt that understanding to a particular customer is minimal. Tamr simply needs some samples of parts data to associate with each branch of the taxonomy and can then automate a high percentage of the classification at the deepest levels of the taxonomy provided. Where Tamr is not sure of particular part matches, it will ask an expert within the customer organization for validation.

Tamr provides the deepest level of classification -- whether it be an organization's own taxonomy or UNSPSC
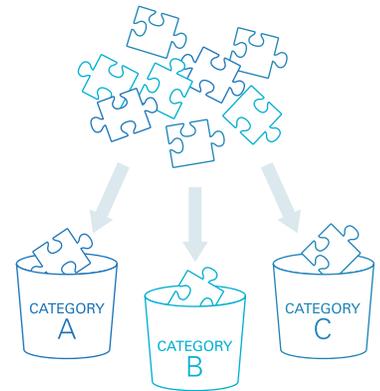
Tamr Can Fit Into Any Enterprise Environment

Not only has Tamr been selected by procurement teams across a variety of industries due to its superior ability to provide rapid, comprehensive insights, but its flexibility is also compelling to enterprises. Tamr can work with any existing systems from a data source perspective (e.g. existing ERP systems, Source-to-Pay Systems, external data feeds, etc.) as well as visualization perspective (e.g. existing BI tools, scorecards, or even Excel spreadsheets). This flexibility is a compelling feature of Tamr as it allows customers to avoid "vendor lock-in" for those that want best-of-breed solutions. Moreover, it avoids the need to "rip-and-replace" existing investments.

Implementations of Tamr Have Saved Customers Hundreds of Millions of Dollars

Tamr's ability to provide the deepest level of insight from spend data in the quickest time frame has enabled some customers to identify and act upon cost savings opportunities worth hundreds of millions of dollars.

In one example, for a Fortune 10 company, Tamr analyzed spend data representing over $40 billion in just one week and surfaced over $100 million in cost-savings potential through the identification of opportunities to source some parts more economically.

Whether procurement teams are focusing on driving out cost, de-risking their supply base, or demonstrating compliance with external or internal mandates, analytics and reporting play a key role in making decisions and measuring results. Tamr ultimately empowers procurement teams to harness the insight within their spend data to not only survive their ever-changing, increasingly complex environment, but to thrive in it.

Conclusion

As organizations continue to heavily invest in information systems for the supply chain, unified datasets will prove critical to answering some of the most impactful P&L questions. In fact, the long-tail opportunities made available by unified data can amount to savings larger than what's typically made available by looking at top sources alone. However, due to the sheer volume and variety of the resulting data, procurement managers must move beyond traditional approaches to create this unified environment for analysis.

About Tamr

Tamr blends automation and data science expertise to speed up and simplify data preparation for procurement analytics, clinical data integration, customer data integration, and other business problems -- so businesses can ask bigger questions and get to business insights faster. For your own personalized Tamr demo, visit www.tamr.com

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