Aberdeen*Group*

Best Practices in Spending Analysis

Cure for a Corporate Epidemic

September 2004

Executive Summary

Key Takeaways

- Spend data management is a requirement for supply management and business success.

- Unfortunately, most enterprises lack sufficient, accurate, and timely insight into corporate spending information.

- Leading spend data management initiatives rely on access to all spend data sources; a common classification schema; category expertise; efficient and repeatable data cleansing and classification capabilities; advanced reporting and decision support tools; and sufficient resources and executive support.

S ourcing strategy, category expertise, negotiation methodology, and procurement execution are all critical components of a highly effective supply management initiative. However, the success of any supply management program is largely dependent upon the ability to access, organize, and analyze spend data. Spend data is also vital for other business strategies, such as budgeting and planning, inventory management, and product development.

Access to timely, accurate, complete, and detailed spend data offers invaluable intelligence on spending patterns, compliance and performance ratings, inventory status, and part attributes. Such insight is critical for identifying hard-dollar savings opportunities and developing sourcing, budgeting, planning, and product strategies.

Over the past three years, Aberdeen Group has examined the spend data management strategies, processes, and systems of nearly 200 enterprises. Our research uncovered a harsh truth: *few enterprises know what they spend, on which products, or with which suppliers*. As a result, supply managers and business executives are developing strategies and decisions based on intuition rather than fact. All told, Aberdeen estimates that industry is losing $260 billions each year due to a pervasive inability to organize and analyze spend data.

Faced with such facts, Aberdeen set out to identify strategies effective spend-data management, spending July through September 2004 examining spend-data management initiatives and software and services implementations at more than 30 leading enterprises.

Our research clearly found that the most successful spend data management initiatives rely on the following:

1. Audit existing spend data management capabilities.

2. Access all spend-data sources within and outside the enterprise.

3. Adopt a common classification schema enterprise-wide.

4. Establish efficient and repeatable data cleansing and classification capabilities through the use of software or services.

5. Augment category expertise to ensure data and classification accuracy and validation.

6. Classify spending at a detailed level.

7. Enhance core spend data with vital business intelligence.

8. Increase frequency and coverage of spending analyses.

9. Utilize advanced reporting and decision support tools.

10. Continuously expand uses and scope of spend data management program.

This report examines these spend data management success strategies in more detail and profiles enterprises demonstrating best practices in spending analysis supported by spend data management automation and/or services. Table 1 lists these winning enterprises in alphabetical order, and indicates their supporting spend data management solution providers.

Table 1: Best Practices Winners and Their Solution Providers

Enterprise Winners	Solution Providers Used
ABB Ltd.	SAS Institute, Inc.
Cendant Corporation	Silver Oak Solutions
Large Publishing Company (Confidential)	American Express
Limited Brands	D&B Corp., Ariba, Inc.
MasterBrand Cabinets Inc.	Verticalnet, Inc.
Owens Corning	Emptoris
PPG Industries, Inc.	Ariba
Vought Aircraft Industries, Inc.	Ketera

Source: Aberdeen Group, September 2004

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Chapter One:

Issues at Hand

Key Takeaways	
	• Spend data management is critical for supply management and business success.
	• Insufficient visibility into spending is a corporate epidemic.
	• Hurdles to spend data manage include disparate data sources; inaccurate and incomplete spend data; limited category expertise; incongruent naming conventions; limited analysis tools.
	• Improving spend data management offers measurable benefits.

The first phase of supply management automation focused on creating process efficiencies and highly competitive negotiation environments. With initial investments in Internet-based sourcing and procurement automation technologies maturing enterprises are looking for their next opportunity for supply management savings and improvements. Spend data management has emerged as one of the leading strategies enterprises will use to drive continuous improvements in supply management.

The following trends indicate the growing importance of spend data management in enterprise supply management and strategic business operations:

- **Timely access to accurate spend and compliance data is a key priority for senior executives**: Cost pressures are always top of mind for senior executives. However, new regulatory requirements – particularly the Sarbanes Oxley Act – mandate structured procedures for fiscal accountability, documented business controls, procedures for tracking and reporting material business information, and procedures and systems for ensuring compliance and auditing. Insight into accurate spend data will be vital for compliance to these regulations.

- **Spend data management principles and solutions being applied to multiple business areas**: The link between spend data management and sourcing and supplier management is obvious. However, accurate spend data is an equally critical to other business objectives, including compliance management, inventory management, budgeting and planning, and product development and management. Renewed focus in these areas is fueling additional interest in spend data management.

- **E-sourcing users view spend data management applications and services as key to next round of savings**. Two recent Aberdeen studies of more than 325 supply management executives identified spend data cleansing and classification software and services among the top priorities for investment.

- **Spend data management now core component of platform and service provider offerings**. Recognizing the critical importance accurate and complete spend data has on the value of their own solutions, several e-procurement and e-sourcing platform

providers are boosting their spend data management capabilities by acquiring spend data cleansing and classification applications or developing or partnering for spend data management services – *or both*. Other business service providers, such as procurement service providers, financial services firms, and consultants, are making similar investments to bolster their spend data management capabilities and offerings.

The Spend Data Crisis: A Recap

Despite the critical role spend data plays in supply management strategies and decisions, only half of businesses currently have formal procedures for managing and analyzing spend data. Worse yet, firms with formal procedures in place are only examining half of their total spending[1]. Aberdeen has identified the following common challenges to effective spend data management and analysis:

- *Disparate data sources*: Spending data is located in multiple systems across the enterprise, including accounts payable (AP), general ledger (GL), enterprise resource planning (ERP), purchasing, and legacy systems. Spending data is also found in systems outside the enterprise, including credit- and procurement-card (P-card) systems, automated clearinghouse (ACH) and bank feeds, and business systems installed at outsource service providers, including procurement service providers. Aggregating data from these disparate systems has historically been a manual and time-consuming process.

- *Inaccurate or incomplete data*: ERP systems were designed for transaction processing and control, not reporting and analysis. The detailed information needed for effective spend data classification and analysis is often found in unstructured data within ERP and other business systems. This information is often rife with errors or missing critical data fields, such as supplier name, product attributes, or account codes. Such errors must be corrected at the outset to avoid problems with data classification and analysis.

- *Incongruent vendor naming conventions*: Within a given enterprise, a single vendor is often called by different names (e.g., IBM, I.B.M., Int'l Business Machines, etc.). An organization also may be unknowingly doing business with multiple entities that are business units of a single company. Additionally, a company may be buying products from a distributor or reseller without knowing it has a direct contract with the product manufacturer. These issues pollute spend data, limiting visibility into true spending patterns and decreasing negotiation leverage with suppliers. Such disparities must be reconciled in order for a company to clearly understand its spending position.

- *Incongruent product and service naming conventions*: A single product may appear multiple times in multiple enterprise systems, including the inventory item master, purchasing systems, e-Procurement systems, etc. These systems also often describe the same part in many different ways. An enterprise must reconcile such disparities and classify data according to a consistent taxonomy and to a level of detail that is meaningful for analysis. There are numerous classification "standards," such as stan-

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[1] Spending Analysis Benchmark Report (Aberdeen 2003)

dard industrial classification (SIC) or NAICS codes, Universal Standard Products and Services Classification (UNSPSC), eCl@ss. Two-thirds of companies currently use internally-developed taxonomies for categorizing spend data, with many supporting multiple internal classification schemas.

- *Labor-intensive cleansing and classification processes:* Most companies continue to rely on basic spreadsheet applications and manual reviews to aggregate, classify, and analyze spend data. As a result, such activities account for 12% to 15% of the sourcing cycle and consume 30% to 50% of a commodity manager's time. Such factors prompt many procurement organizations to conduct cursory spending analyses; examining, for example, spending within their particular site or division, and classifying spend data at the highest-level commodity classes, such as IT equipment. These practices provide insufficient insight and often inaccurate analyses, resulting in fragmented buying strategies that fail to fully leverage a company's purchasing power or identify savings and improvement opportunities.

- *Insufficient commodity expertise:* Correcting spend-data classification errors requires domain expertise in both products and data attributes. This expertise varies across the company, resulting in unpredictable results. Many firms put data cleansing and classification duties in the hands of IT professionals who lack understanding of the parts and services that require review. Aberdeen research found that as much as 30% of all spending data are is incorrectly categorized or classified as "miscellaneous," further complicating efforts to analyze and leverage spending.

- *Limited analytics capabilities*: Identifying patterns and savings opportunities amongst aggregate spending data require considerable analysis. Unfortunately, Aberdeen research finds that nearly 90% of companies still use basic spreadsheet applications as their primary analysis tools, limiting the breadth and sophistication of analyses that can be executed.

These issues lead Aberdeen to estimate that inadequate spend data management capabilities are costing businesses $260 billion in missed savings opportunities annually.

Spend Data Management Defined

Spend data management – also referred to as spending analysis -- is the process of aggregating, classifying, and leveraging spend data for the purpose of reducing costs, improving operational performance, and ensuring compliance. Aberdeen has identified five attributes of effective spending analysis data management and spending analysis programs (Figure 1):

1. *Extract* — support automated extraction of all spend data from internal and external business systems.

2. *Validate* — ensure spending data files are accurate and complete.

3. *Cleanse and classify* — enable efficient, accurate, and *preferably automated* rationalization and classification of data elements and attributes. Eliminate discrepancies between incongruent naming conventions and map spend data to industry-standard classification systems (e.g., UNSPSC, eCl@ss) or enterprise-specific taxonomies.

4. *Enhance* — enhance cleansed spending data with complementary business information, including existing contract terms, alternative parts references, suppliers' financial status and performance information, minority, woman-owned business (MWOB) status, etc.

5. *Analyze* — support role-based analysis of *actionable* spending information. Enable export of cleansed and enhanced spending information to third-party analytical tools.

Figure 1: Spend Data Management Framework

Source: Aberdeen Group, September 2004

Effective Spend Data Management Yields Big Results

The primary business drivers raising executive awareness and accelerating adoption of spend data management initiatives and technology investments are examined in detail in the next chapter. However, a clear driver for such investments is the signification positive impact accurate and detailed spend data can have on sourcing, compliance, and other strategic business initiatives (Table 2).

Aberdeen's examination of enterprise spend data management competencies clearly indicates that gaining timely, accurate, and current insight into detailed spend data on any repeatable basis requires efficient data extraction, cleansing, and classification capabili-

ties, supported by third-party automation, services – or both. Most commercially available spend data management solutions marry application integration, content management, and analytical tools with domain and process expertise to provide a unified view of enterprise spend data and to enable *automated* and *repeatable* spending analysis. Spend data management solutions can be segmented in three areas:

1. *Traditional full-service consulting* – this "traditional" solution merely involves outsourcing of spend data management activities to a third party that has commodity domain experts and basic support systems. These traditional offerings are advantageous in that consultants can offer analysis and strategy development support. However, such offerings provide a static snapshot of spending information that soon becomes outdated. Outsourcing also limits the transfer of domain and process knowledge to the enterprise, making it difficult for a company to repeatedly analyze changing spending patterns without rehiring consultants.

2. *Automated spend data management* – these software applications extract and cleanse spend data from multiple sources (e.g., invoices, POs, P-cards statements) and systems (e.g., ERP, AP, GL). These software-based solutions also classify this data by product category, vendor, and employee using various combinations of pattern-matching algorithms, neural networks, rules engines, domain-knowledge libraries, and other analytical techniques. Aberdeen research has found that software-based (and software-aided) solutions can accurately classify 80% or better of spend data records on first-pass. Because these are self-learning or rules-based systems, once exceptions are managed by domain experts, classification rates improve on subsequent rounds. These applications are differentiated by the accuracy and depth of spend data classification, breadth of spend data category coverage, and data enhancement capabilities. Additional differentiators include sophistication of data extraction and reporting and analysis capabilities.

3. *Turnkey spend data management services* – a mix of traditional consulting and software-based solutions, turnkey solutions marry automated data cleansing and classification capabilities with spend category domain experts and sourcing managers that can validate classifications and manage exceptions that could not be auto-classified to an acceptable level of accuracy or detail. Turnkey service providers establish data extraction routines from enterprise systems (generally a bulk load format) and perform cleansing, classification, and, in some cases, enhancement services. Cleansed data files are distributed back to the enterprise for loading into an analytical tool or data warehouse. Turnkey services are currently offered by sourcing and procurement platform vendors, procurement service providers, financial services firms, and traditional consulting firms.

Specific benefits achieved from spend data management and use of supporting data cleansing and classification automation and services appear in Table 2.

To be clear, accurate spend data provides factual insight and direction for sourcing and business strategies; it does not in and of itself deliver a direct ROI. Executing on accurate spend data requires sufficient sourcing and business expertise and proven methodologies. However, without timely and consistent insight into spend data, enterprises might never uncover the savings and performance opportunities inherent within their products, inventories, and supply base.

Table 2: Benefits of Spend Data Management

Improvement Area	Performance Impact
Material/services costs	Reduce costs 2% - 12% through informed strategic sourcing strategies
Supplier management	Eliminate duplicative suppliers. (Reduction depends on previous efforts.)
Contract compliance	Improve compliance 55%. Save 7%, through use of contract pricing.
Regulatory compliance	Meet regulatory reporting rules.
Inventory management	Cut excess stocks >50%. Lower inventory costs 5% - 50%. Reduce expediting costs.
Product management	Cut unnecessary part introductions by 20%. Increase part reuse. Align design and supply strategies. Facilitate early supplier integration.
Process cycles	Reduce spend analysis project cycles 30% to 50%. Refocus sourcing and business managers on strategic tasks

Source: Aberdeen Group, September 2004

Chapter Two:
Key Business Value Findings

Key Takeaways

- Spend data management practice and solution investment is being accelerated by continued pressure to reduce costs, improve compliance, meet regulatory requirements, extend the value of IT investments, and stem parts proliferation and waste.

Aberdeen has encapsulated the primary drivers for spend data management into the following PACE (pressures, actions, capabilities, and enablers) framework (Table 3).

Pressures: External forces that impact an organization's market position, competitiveness, or business operations

Actions: The approaches that an organization takes in response to industry drivers

Capabilities: The business process competencies required to execute corporate strategy

Enablers: The key functionality of technology solutions required to support the organizations enabling business practices

Table 3: Spend Data Management PACE

Priorities	Prioritized Pressures	Prioritized Actions	Prioritized Capabilities	Prioritized Enablers
1	Continued pressure to reduce costs in the face of supply price increases and shortages	Identify new opportunities to leverage spending, rationalize supply base, and control product proliferation. Ensure accurate pricing. Access volume breaks, discounts, and rebates.	C-level emphasis on supply management; advances in supply management knowledge and discipline; increased spend under procurement group's control.	Adoption of systems and strategies to improve efficiency, accuracy, and repeatability of spend data cleansing, classification, and enhancement. Use of advanced analytics to identify savings opportunities and strategies.

Priorities	Prioritized Pressures	Prioritized Actions	Prioritized Capabilities	Prioritized Enablers
2	Increased regulatory reporting requirements	Establish standard procedures, controls, and reporting contractual obligations, execution, and performance.	C-level focus and increased budget for compliance infrastructure improvements.	Adoption of systems and strategies to enable quick and accurate reporting of financial spending, obligations, and exposure and demonstrate auditable procedures and controls. Use of reporting tools to meet regulatory requirements.
3	Eroding value from procurement, sourcing, and enterprise resource planning technology investments	Extend value and usability of existing business systems and improve spend data accuracy and accessibility to support informed sourcing, supply, and business decisions.	Availability of advanced and proven spend-data management solutions. Availability of hosted, on-demand, and turnkey application and service models.	Adoption of software and services to provide central, accurate, and detailed view of all spend data across all transactional and business systems.
4	Increased focus on part standardization and reuse	Identify and consolidate redundant parts with like attributes across designs. Limit undue introduction of new parts. Integrate sourcing and suppliers early in the design phase.	Focus on lean principles to cut redundancies and waste. Product development initiatives to rationalize parts. Sourcing initiatives to improve spend leverage and supplier partnerships.	Extend spend data cleansing and classification capabilities to BOM, vendor master, and reference databases.
5	Increased focus on inventory control	Identify, consolidate, and share redundant parts with like attributes across sites. Limit ordering or stocking of excess inventory.	Heightened focus on lean and JIT inventory management. Plant and site incentives to reduce and share inventories.	Apply data cleansing and classification capabilities to inventory data in inventory, planning, and ERP systems.

Source: Aberdeen Group, September 2004

Key Business Drivers

Aberdeen research indicates that the following market conditions are making spend data management a corporate priority:

- Continued pressures to reduce costs in the face of increasing energy, transportation, and supply prices and new supply constraints.

- Pressures to ensure compliance with negotiated contracts.

- New regulations – such as the Sarbanes Oxley Act – require companies to establish and document business controls, procedures for tracking and reporting material business information, procedures and systems for ensuring compliance and auditing.

- Pressures to extend the value of existing sourcing, procurement, and ERP technology investments.

- Goals to improve product development and inventory management operations through elimination of waste and redundant or unnecessary parts.

- Increased availability of packaged software applications and services designed to automate, streamline, and enhance spend data extraction, cleansing, classification, and analysis processes.

Chapter Three:
Best Practices and Recommendations

Key Takeaways

- Aberdeen's examination of the spend data management strategies, processes, and systems of nearly 200 enterprises -- including more than 30 spend data management automation and service deployments -- identified 10 leading strategies

- Attributes of best-in-class spend data management initiatives include access to all spend data sources; a common classification schema; category expertise; efficient and repeatable data cleansing and classification capabilities; advanced reporting and decision support tools; and executive support..

To better understand the strategies required for making spend data management an efficient, accurate, and repeatable process, Aberdeen Group spent several months examining spend data management processes, infrastructure, and supporting technology systems at more than 30 enterprises. Aberdeen evaluated the spend data management competence of each enterprise using several criteria, including percentage of total spend classified and analyzed; breadth and scope of spend data classification; reductions in spending analysis cycles and costs; reductions in supply costs achieved through improved spend visibility; improvements in compliance, product management, inventory, budgeting, risk mitigation and other business issues impacted by spend data.

This most recent research effort followed Aberdeen's previous benchmark of spending data management and analysis operations at 160 enterprises.

Best-in-Class Firms Rely on Automation and Detail

Table 4 summarizes the differentiating attributes of best-in-class spend data management operations. Key defining attributes are the use of automation to accurately and repeatedly extract, cleanse, and classify spend data at a detailed level.

Table 4: Attributes of Spend Data Management Excellence

	Laggards	Industry Average	Best in Class
Process	No standard spend data management program or procedures. Manual processes. Spending analysis projects executed on ad hoc basis – mostly prior to sourcing major spend categories.	Some spend data cleansing and classification protocols applied by select groups – primarily sourcing. Spending analysis projects executed as part of standard sourcing process.	Standard spend data cleansing and classification procedures companywide. Spending analysis projects part of sourcing, compliance, budget, and other business processes and data sets.
Organization	Spending analysis conducted at the site or division level.	Spending analysis projects executed at least on the division level with some coordination across divisions and regions.	Spending analysis projects aligned company-wide. Data classification projects aligned with other functions; e.g., budget, development, inventory management.
Knowledge	Spend analyses focus on a select group of commodities or suppliers. Spend data classified at a high level, providing only summary information. No data enhancement.	Spend analyses applied to largest spending and suppliers. Spend data classified at supplier level to identify the families of spend that offer the greatest leverage. Basic data enhancement.	Spend analyses applied to all spend & suppliers. Spend data classified at the item level, comparisons of attributes across suppliers and commodities. Data enhanced with contract, supplier, and part information.
Technology	Spend data gathered manually from a select sub-set of financial systems. Data validation, cleansing, and classification handled manually.	Spend data gathered from financial and transactional systems using mix of manual, bulk load, and flat file methods. Manual data cleansing and classification; some internally developed formulas and routines.	Highly automated spend data extraction, cleansing, and classification. Advanced analysis and reporting capabilities. Leading firms classify data at source – e.g., at the point of requisition or sourcing/part request.
Performance metrics	<30% of spend data aggregated, classified, and analyzed regularly.	<60% of spend data aggregated, classified, and analyzed regularly.	>85% of spend data aggregated, classified, and analyzed regularly.

Source: Aberdeen Group, September 2004

Spending Analysis Best Practices

Aberdeen's Best Practice research project identified 10 strategies common among enterprises with the most successful spend data management programs:

1. Audit existing spend data management capabilities.

2. Access all spend-data sources within and outside the enterprise.

3. Adopt a common classification schema enterprise-wide.

4. Establish efficient and repeatable data cleansing and classification capabilities through the use of software or services.

5. Augment category expertise to ensure data and classification accuracy and validation.

6. Classify spending at a detailed level.

7. Enhance core spend data with vital business intelligence.

8. Increase frequency and coverage of spending analyses.

9. Utilize advanced reporting and decision support tools.

10. Continuously expand uses and scope of spend data management program.

1. Audit existing spend data management capabilities

Aberdeen research of enterprise spend data management competencies clearly found that few companies understand the extent of the problem or challenge inaccurate spend data poses to their companies. Even fewer understand what procedures are required to fix this problem. Best-in-class performers began improvement efforts an audit of existing spend data management infrastructure and competencies. Areas to examine include:

- *Spend data system map*: Begin by understanding which business systems contain data required to create a complete spend record. As noted above, this map should include both internal systems (e.g., ERP, e-Procurement, AP, GL) and external systems (e.g., ACH, P-card).

- *Spend data quality assessment*: Examine the completeness of spend data, identify additional data elements that might be required to create a detailed spend record. Also assess the accuracy and depth of existing data classifications.

- *Classification schema assessment*: Assess the number, type, and usefulness of classification schemas currently used across the enterprise. Determine if existing schemas can be consolidated or if underperforming schemas can be replaced. Also assess whether existing schemas can be mapped to an industry standard schema – such as UNSPSC – to enable analysis of enterprisewide spend.

- *Data management processes*: Next understand existing procedures and systems used for extracting, cleansing, and classifying spend data. Note which functions require spend data and which resources actually perform the spend data management activities.

- *Spend category and commodity expertise*: Assess depth internal skills and expertise used to support the classification and analysis of spend data. Note both strengths and areas that require augmentation.

- *Data storage, reporting, and analysis capabilities*: Finally, examine how your company stores and analyzes spend data. Determine requirements for spend data access, types of reports, and frequency of such requests. Ensure data is accessible and can be efficiently analyzed and drilled into to meet the needs of executives business line decision makers.

Enterprises engaging in initial audit may also consider hiring consultants or other support services to conduct a baseline spending analysis project to identify immediate areas for improvement and illustrate the positive impact a more formal and repeatable spend data management initiative will have on enterprise performance.

2. Access all spend-data sources

Gathering a complete and accurate blueprint of total spending requires enterprises to access spend data from all relevant sources both within and outside the system. In addition to the obvious sources, such as AP, GL, ERP and purchasing systems, enterprises should also access spend data that is resident in external sources, such as ACH, P-Card, and the business systems of outsourced service providers, such as logistics service providers and contract manufacturers.

Leading enterprises have established automated extraction routines to aggregate and refresh spend data from multiple sources on a regular basis, allowing accurate and repeatable spending analyses. For example, PPG Industries, Inc. has established automated routines to extract spend data from more than 23 data sources, including five different ERP systems and feeds from its P-card provider.

3. Adopt a common classification schema

Best-in-class enterprises have adopted a common internal taxonomy or industry-standard classification schema, such as UNSPSC. Such standardization is key to driving accurate organization and correlation of spend data and to enabling actionable analyses. Industry standard schemas provide a universally accepted metadata layer for organizing and controlling spend data. These standards also are often broader than internally developed classification codes, allowing enterprises the ability to map all spend data to a single schema.

In fact, in some instances, leading enterprises have accelerated adoption and return of their spend data management programs by mapping existing internal data schemas to one common industry standard. This industry standard functions as a meta-meta-data layer, allowing employees and business units to continue to use their traditional schemas and nomenclature, while ensuring that business executives can get a holistic view of total spending.

It is important to note that many businesses, particularly those in industrial manufacturing, often find it necessary to extend industry-standard schemas to classify certain categories of spend, such as complex parts, at a more granular level.

4. Create repeatable process using software or services

Due to the volume and complexity of spend data within an enterprise, enterprises cannot use traditional, labor-intensive procedures and fragmented systems to manage the above activities. External services-only solutions provide only a temporary solution, requiring enterprises to continually re-engage consultants to keep spend data current. Outsourcing also limits the transfer of domain and process knowledge to the enterprise, increasing the organization's reliance upon consultants for future analysis of spending patterns.

Unfortunately, to date, less than half of enterprises have applied automation tools to spend data cleansing and classification process. Excellence in spend data management requires that spend data extraction, classification, enhancement, and analysis activities be supported by automation and services that can streamline existing procedures and make spending analysis a repeatable process. Best-in-class enterprises either directly licensed automated data cleansing and classification software or engaged consultants or other service providers that leverage such solutions in delivery of a turnkey spend data management service.

For example, leading enterprises such as MasterBrand, Owens-Corning, and PPG licensed auto-classification software solutions to support their spend data management initiatives. Other best-in-class performers, such as Vought Aircraft, adopted a turnkey service.

5. Augment category expertise for data classification

Automated spend data management solutions encapsulate data classification rules and attributes for a wide range of spend categories. Not surprisingly, most of these solutions perform best when classifying commonly used indirect product categories, such as IT equipment and MRO supplies. However, select solutions incorporate knowledge libraries on more complex items, including standard electronic and mechanical parts. (Few solutions effectively categorize complex services spending at the attribute level right out of the box.)

Through rules engines and self-learning capabilities, auto-classification solutions can instantiate the knowledge of an enterprise's best commodity and sourcing experts into the system. However, there will continue to be needs for commodity managers to classify exceptions that cannot be managed by the system. As supply management organizations work to get more spend under management, enterprises may find it necessary to augment some internal competencies with category domain expertise from an external service provider or a new hire.

6. Classify spending at a detailed level

The most effective spending analyses are the result of spend data that is categorized at the item level, providing visibility and allowing comparisons of detailed attributes across suppliers and commodities.

While there are benefits to higher-level classification at the category or supplier level, item-level detail enables a precise view of spending with each supplier and for each commodity on a company, division, site, and, even, buyer basis. It also allows for comparison of price- and non-price performance attributes, such as price inflation, contract compliance, and premium cost variance. This item-level detail – often referred to as

Level Three data -- provides companies with deep visibility into total spending, enabling the accurate and actionable analyses required for devising optimal and timely sourcing strategies. Table 5 defines the primary levels of classification detail and the value and challenges of classification at each level.

For example, with the aid of third-party auto-classification tools, Owens Corning is now capable of analyzing 100% of total spending, with 90% of this data classified at the Level Three, line-item detail. This detail empowers the company's sourcing and supply managers to drill down to the spend data detail necessary to develop optimal sourcing and compliance strategies without enlisting IT support.
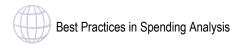
Table 5: Levels of Spend Data Classification

	Characteristics	Benefits	Challenges
Level 1	Annual aggregation of high value commodities and/or top suppliers Supplier-based classification High-level assessment	Identifies most obvious opportunities for aggregation.	Fails to examine complete spending position. Provides only high-level summary data. Relies more on instinct and experience of purchasing team than real data.
Level 2	Supplier-based spend categorization. Focuses on top-leverage commodity categories.	Deeper view of spending within high-level categories. Used to drive commodity strategies.	Overlooks diversity of spend with a supplier. Can give inaccurate view of spending position with a supplier. Too high a level (commodity families) to develop and execute real strategies
Level 3	Consolidated view of spend Data classified at the item level Deep visibility into purchases Actionable analyses	Detailed view of spending by company, division, site, and buyer. Enables optimal sourcing strategies based on timely and accurate intelligence.	Requires access to 100% of spending data. Requires deep expertise of commodities and suppliers. Requires sophisticated analytical tool support.

Source: Aberdeen Group, September 2004

7. Enhance spend data with vital business intelligence

Best-in-class view spend data as the command and control center for supply and business intelligence, providing a single consolidated view of total spending, compliance, and performance information. These enterprises enhance core spend data with related business intelligence.

The most basic form of enhancement is assessing parent-child relationships to ensure full spend leverage and aid balance of trade decisions. Additional spend data enhancements used by best-in-class performers include: contract terms, MWOB status, alternative parts data, industry pricing indexes, average selling prices, supplier financial risk scores, performance information, lead times, inflation. This external market intelligence and supplier information can provide the insight necessary to devise optimal sourcing, product, and inventory strategies that can be executed in the real world.

For example, Limited Brands augments its spend data records with parent-child data and financial risk information from a third-party. These enhancements have helped the retailer rationalize its supply base and aggregate spending with preferred suppliers.

8. Increase frequency and coverage of spending analyses

Supply market dynamics are constantly in flux. In a recent Aberdeen study, supply management executives reported increases in energy and transportation prices, increases in supply prices, longer supply lead times, and new supply constraints. Such factors require enterprises to constantly make supply trade-offs between primary and secondary suppliers, and, in many cases, identify new sources of supply. Responding to these challenges requires access to an accurate and up-to-date view of total spending.

The adoption of standard procedures, reports, and advanced auto-classification solutions have helped leading enterprises, such as Cendant Corporation, Limited, and PPG, get monthly refreshes of their spend data, ensuring internal sourcing and business managers are always dealing with the most current spend positions.

More efficient spend data cleansing and classification operations also empowers enterprises to conduct thorough examinations of spend categories they never had neither time nor the resources to evaluate in the past.

9. Utilize advanced reporting and decision support tools

Having a timely and consolidated view into all spend data is a major first step. However, commodity managers can soon become overwhelmed by data overload, resorting to only cursory analyses.

Fully leveraging spend data will require the support of advanced reporting and analytical tools, such as a data-warehouse, online analytical process (OLAP) engine, or multi-dimensional analysis (MDA) engine. These decision support tools can support the analysis and correlations among large data sets. These tools can also be used to generate pre-configured reports and views of spend data that meet the unique decision support needs of individual stakeholders – from commodity managers to engineers to financial executives. Several spend data management tools come equipped with basic decision support engines or can export classified spend data into any third-party warehouse or OLAP tools.

10. Continuously expand uses and scope of program

The most successful enterprises view spend-data management as a continuous improvement process. These companies are constantly looking for ways to expand the uses and scope of spend its data cleansing and classification capabilities.

For example, one financial services firm and one software company Aberdeen examined were pursuing similar strategies to streamline data classification activities even further by applying auto-classification technologies to the front end of their online requisitioning systems. In this scenario, the system would auto-classify an item as the requisition is entered into the system. For items that could not be auto-classified with a high degree of confidence, the system triggers a workflow for further review and assessment by a trained commodity manager. In one case, the system was also presenting likely classification alternatives to aid the commodity manager in final classification.

Other enterprises are beginning to use spend data auto-classification solutions to attack other data problems within the enterprise. For example, one manufacturer has applied its auto-classification tools to consolidate, clean, and classify its part and material master.

Another manufacturer reported using auto-classification technologies to help identify opportunities for parts standardization and reuse.

Chapter Four:
Best Practices in Spending Analysis
Profiles of Winners

Key Takeaways

Aberdeen research of more than 30 spending analysis programs and system deployments has identified the following enterprises as demonstrating best practices in spending analysis:

- ABB Ltd.
- Cendant Corp.
- Limited Brands Inc.
- MasterBrand Cabinets Inc.
- Owens Corning
- PPG Industries Inc.
- Reed Business Information US
- Vought Aircraft Industries Inc.

Case studies of most of these enterprises follow in this chapter. Remaining case studies will be published on an on-going series during the month of October with the final report complete by October 31, 2004. Please check www.aberdeen.com after that date.
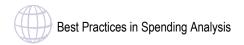
ABB Powers Up Spending Analysis to Improve Supplier Relationship Management Company-wide

Business Challenge

Zurich-based ABB Ltd. is a global industrial powerhouse with 1,200 business units, operations in 100 countries, and more than 100,000 employees. The $18 billion energy and automation technology provider spends more than $10 billion on goods and services each year, approximately 60% on direct and 40% on indirect materials.

Yet in spite of its considerable reach in the world utility markets, ABB had little ability to leverage its own aggregate spending power. Its visibility was dampened by the fact it relies on more than 300 different enterprise resource planning (ERP) systems world-wide and any cross-business analysis had to be done manually.

Spending Analysis Strategy

In 2000, ABB set itself goals to better manage spend, leverage its total buying power, and identify sourcing opportunities for optimum supplier relationships. It outlined a specific plan to focus on high impact commodities, aggregate the spend with a few best performing suppliers, and move business to these partners to gain savings of 5% to 10% of total costs.

Best Practices in Spending Analysis

Company Name

ABB Ltd.

Solution Providers

SAS Institute Inc.

Business Challenge

Little ability to collect and analyze data across divisions hindered effectiveness of centralized procurement initiative.

Strategy

Better manage spending, leverage total buying power, and identify sourcing opportunities for optimum supplier relationships through spending analysis.

Value Achieved

Return on investment in spending analysis in 12 months from 5% to 25% commodity sourcing savings enabled by the solution.

Two key requirements for success were identified: a comprehensive spending analysis solution and management buy-in to support the commodity teams, change management required, and the measurement of the cost savings metrics.

Spending Analysis Selection and Deployment

Following a diligent decision process involving a weighted analysis of 13 key criteria categories, ABB selected SAS Institute Inc. because its solution was user-friendly, fit in well with the existing ABB technology infrastructure, SAS's committed schedule for design, development, and implementation, and its global services support levels.

The Web-enabled SAS system was installed at the company's headquarters in February 2001, with automated connections to five key ERPs and Excel data uploads from other systems. A phased roll-out across the enterprise targeted the largest ERP systems, largest locations, and largest business units to get as much volume in the system as quickly as possible in six months.

Data was categorized in a three level proprietary commodity classification schema, and SAS has achieved a 92% accuracy rate at correctly normalizing suppliers and categorizing commodities automatically. Updated on a weekly basis, today the SAS spending analysis solution at ABB encompasses more than 75% of total spend, representing more than 12 million transactions, 8 million items from 80,000 suppliers, and more than $14 billion in historical spending over a rolling 24-month period. Approximately 700 employees are registered to use the tool, averaging 10 concurrent users at any given time, from 475 sites and more than 30 countries.

Results

In the first phase of the roll-out the solution was used to support global commodity management, including spend aggregation and detailed spending analysis. The company was able to determine who its global suppliers were, how much business was being allocated to them, and to differentiate between contracted value and actual placed purchase volume.

Decision support capabilities leveraged in the early stages included graphical analysis of commodity cost comparisons, target costs and cost savings trending. The SAS solution was also able to help the company normalize its vendor quotes across different currencies to understand cross-boarder aggregation opportunities.
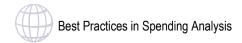
"We use the system every time we have a supplier meeting," said Benny Osth of ABB. "We don't have to ask the supplier [for our own spending information] anymore… we press a button and get all the information we need now, it has helped us to do better negotiations and get better deals."

Although ABB will not disclose specific savings, spending analysis team members say that the company has seen suppliers offer 5% to 25% reductions to become more strategic partners with ABB and the company is "on track" to reach its goals, achieving a return on its investment within 12 months. Although Osth acknowledges that spending analysis on its own can not lock in savings, he noted, "First of all you need a target [for savings]. The system is a way of helping you achieve that target."

Qualitative benefits include general information visibility into its supply base to determine risk assessment and partnership opportunities. An unexpected benefit has been the fact that financial controllers in the company can use the system for weekly cash flow and payment term compliance checks.

Lessons Learned

Critical success factors to the SAS implementation at ABB include the management buy-in that commodity team members identified as important up-front. This executive support and agreement on goals, expectations, and specifications with the supply and information technology teams made the thorough change management program that was needed a smoother process. The clear-cut project schedule outlining the resources, financing and manpower with key milestones and deliverables clearly stated was vital to success as well.

Future Outlook

Moving ahead, ABB plans to do more proactive analysis of its spending environment to gain more "insight" rather than " hindsight" on its spending to inform strategies, including supplier performance measurement. It wants to move from trying to understand why particular spending patterns occurred and fixing problems to modeling optimal scenarios to act upon. In this way, it hopes to be able to do demand-driven strategic sourcing, putting ABB in the best position to leverage market demand, negotiated volumes, forecast accurately, and become a predictable customer with its new supply chain partners.

Cendant Leverages Spending Analytics as First Step in Global Procurement Excellence

Business Challenge

Following rapid growth through a series of mergers and acquisitions, travel and real estate services giant Cendant Corp. had very limited visibility into its billions of corporate-wide spend. In 2002, the 87,000-person company embarked on a mission to create a world-class global procurement operation and identified creating a spend analysis system as a first step.

Spending Analysis Strategy

With approximately 20 different financial systems in place at 24 businesses at the time, Cendant wanted to create a single data resource for all corporate spending. It needed detailed information on vendors and purchases to help support individual negotiations with key suppliers across its business units, as well as to help guide the firm in vendor diversity and risk assessments.

Spending Analysis Selection and Deployment

Without extensive dedicated spending analysis expertise in-house, Cendant wanted to turn to a third-party expert, but at the same time it wanted to work with professionals focused on procurement, not just business consulting. The New York City-based company also wanted to establish an internal data collection process that was repeatable, so it would not be necessarily tied to the third-party for on-going help.

Best Practices in Spending Analysis
Company Name
Cendant Corporation
Solution Providers
Silver Oak Solutions
Business Challenge
Widely distributed organization wanted to leverage aggregate purchasing power and create world-class procurement organization but had little insight into spending details.
Strategy
To create an automated purchasing data spending analysis system it could refresh monthly to support strategic sourcing and purchasing compliance activities.
Value Achieved
Leveraging the spend analysis solution, Cendant has been able to aggregate spend, consolidate vendors and negotiate savings from 5% to 45% in a number of categories, saving millions of dollars to date.

From August 2002 through early 2003, Cendant engaged Silver Oak Solutions to fulfill its requirements following a test pilot of the Boston-based company's PRISM application. According to David Watkins, global procurement director at Cendant, his group was able to customize the Silver Oak Solution to fit the complexity of the Cendant conglomerate, and continue to use it in-house once the initial eight-month engagement with Silver Oak was complete.

Results

Today Cendant is using the Silver Oak PRISM solution to address 100% of its spend that can be negotiated by procurement, excluding such things as salaries, benefits, and taxes. Financial systems at Cendant have been collapsed from 20 to eight, which now provide monthly feeds to the PRISM system.

Approximately 10 people use the application on a regular basis, leveraging the insight it delivers on Cendant's aggregate spend to negotiate contracts and support compliance enforcement across the company. For example, Watkins noted since the system has been in place, the company has been able to garner 5% to 45% savings in select categories it has renegotiated backed by the detailed information.

An unexpected, yet no less significant benefit, is that sales professionals have been asking for access to the system to prepare themselves when they go into key Cendant supplier accounts to ask for Cendant business. Watkins noted the spend analysis system is providing the company with additional customer relationship management support, which has even resulted in sales wins.

"The ability to get at the information, that pays for itself right there," said Watkins.

Lessons Learned

Watkins believes strongly that starting with a spending analysis initiative has been key to the global procurement organization's early success. It has been the key tool the group has used to understand its suppliers and commitments and put optimum contracts in place.

"We had to understand where we were spending our funds first," said Watkins. "If you start anywhere else, you are starting in the wrong place."

However, technology automation is not a panacea, he notes. It is simply a tool that enables the highest quality throughput at the highest quality level.

Finally, Watkins noted that having executive support for the strategic procurement initiative has been critical to its success overall. As was gaining support from key stakeholders throughout the Cendant businesses.

Future Outlook

Cendant is building on its spending analysis capabilities to create a strategic global spend management discipline and is systematically tackling each and every category of negotiable spending across the corporation. It is in the process of deploying the Web-based version of the PRISM solution so its procurement professionals can access it from any location worldwide. In this way, individual employees across the Cendant companies can take responsibility for optimizing categories and driving and measuring compliance.

Large Publishing Company Gains Insight into
Spending Data to Drive Costs Down and Compliance Up

Business Challenge

Not surprising, this large publisher disseminates a lot of information externally through its more than 130 business magazines, related web sites, and custom marketing and publishing services. However, the company struggled with information internally when it came to optimizing its purchasing spend.

Poor data access and categorization precluded visibility into spending and effective purchasing management and optimization, with multiple systems and inconsistent processes resulting in no commodity categorization for 50% of its spending. In fact, the company had few preferred supplier relationships in place for materials at all, except for key commodities like paper.

Spending Analysis Strategy

As a result, the company identified an opportunity to improve its procurement practices through the use of a corporate purchasing credit card program ("p-card") and chose a solution from the American Express Company. As it sought to roll-out the p-card to its employee base, American Express offered the company an opportunity to participate in a pilot of its spending analysis offering at no charge to help it identify the purchases below $1,000 that would benefit from the automated p-card payment mechanism.

As the publisher wanted to consolidate its spending with preferred suppliers to gain some savings and take advantage of p-card compliance business rules for purchases as well, "it was a perfect fit for us to do it," said the director of disbursements and travel for the company.

Spending Analysis Selection and Deployment

Towards the end of 2003, the publisher worked with American Express to feed approximately $150 million of historical data from its PeopleSoft accounts payable systems, as well as information from its p-card program and select suppliers, into the American Express Spend Analysis Workbench. American Express spending analysis consultants then

Best Practices in Spending Analysis

Company Name

Confidential

Solution Providers

The American Express Company

Business Challenge

Poor data access and categorization precluded visibility into spending and effective purchasing management and optimization.

Strategy

Use a spending analysis tool to provide visibility into spend to support p-card roll-out and preferred supplier programs.

Value Achieved

On track to save $1.2 million in A/P processing costs through increased use of p-card made possible by spending analysis.

categorized the spend by commodity and analyzed by average transaction cost over a seven-week engagement period.

The company's personnel and the American Express consultants then reviewed the data reports jointly, and identified $73 million in spend that would be a good fit for p-card payment transactions. Through this process, they were also able to pinpoint areas for supplier consolidation, for example in temporary services, where the publisher was working with more than 100 vendors.

Results

In terms of process savings, this firm estimates that by channeling the eligible sub-$1,000 purchases onto p-cards it is on track to save $1.2 million this year in accounts payable invoice processing costs, including reducing headcount by two full-time employees. Since conducting the spending analysis engagement with American Express, the company has increased spend going through the card more than 800%.

It has also been able to leverage the insight it gained from the Spend Analysis Workbench to institute preferred supplier and compliance programs. In contract labor, for instance, it went out and sourced a master agreement "at significant savings" with one supplier, said the director, by pooling its own spend with its sister companies.

Lessons Learned

The director recommends companies considering spending analysis initiatives allocate adequate time and resources to perform on-going analysis and to keep the data current throughout the year. The publisher worked with American Express on a stand-alone project, but hopes to leverage the Workbench more on a continuing basis.

In a second round of information collection this September, the firm plans to ask for more detail to be accumulated so it can drill down on facets that can help in opportunity identification and supplier negotiations. It will have to take the time to pull as many data elements as possible and ensure they are provided at a detailed enough level to enable significant analysis, though.

The director noted the company will have to be more diligent in other purchasing and accounting business process steps moving forward to support this effort: "Nothing goes into the "Other" spend category any more," she said.

Future Outlook

The publisher acknowledges it is just skimming the surface of spend aggregation and supplier consolidation savings possibilities, as it still has approximately 50% of indirect spend that could be better categorized and normalized for strategic sourcing. It plans to continue to leverage more in-depth data collection and categorization to identify opportunities for savings, and keep the data refreshed at least one a year.

Limited Brands Procurement Improvement Boundless following Spend Analytics Exercise

Business Challenge

With popular fashion brands from Victoria's Secret to its original The Limited women's clothing chain, Limited Brands Inc. had more than 15 business units each making their own purchasing decisions. Wanting to capitalize on the aggregate spending power of almost 4,000 mall stalwarts, the company formed a purchasing council in the mid 1990s to identify areas to attack costs across brands and businesses.

Meeting once a month, the council was charged with identifying spending in areas such as office supplies, maintenance repair and operations (MRO) materials, corrugated cartons, printing, and packaging. However, members of the group had to collect information through a manually, time-consuming and exhaustive process.

Spending Analysis Strategy

With the council's work constricted by inefficient spend and expense data collection processes, Limited Brands developed four goals toward improving its procurement performance. One, it wanted to improve the quality of the data collected as it faced inconsistencies in the information it was able to collect. Two, it wanted to automate the data collection as much as possible to speed the intelligence gathering. Three, it wanted to gain a better view of all spend and commodity details associated with individual purchases, instead of only gaining visibility into high level information like vendors and payment amounts. And four, Limited Brands was determined to centralize its procurement function in order to maximize operational efficiencies, focus resources, reduce project cycle times, increase contract compliance, and enhance results.

To achieve these goals, Limited Brands identified the need to build a central data repository providing easy access to its supplier portfolio, as well as gain the ability to analyze and create sourcing strategies around similar commodities and aggregated groupings of spend from separate business units.

Best Practices in Spending Analysis

Company Name
Limited Brands Inc.

Solution Providers
The Dun & Bradstreet Corporation, Ariba Inc.

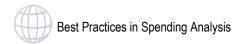| Business Challenge |
| --- |
| Purchasing distributed by function resulting in poor visibility and little organizational spend leverage across company |

Strategy
Create "360-degree" view of spending through collecting and cleansing all spend data from disparate systems to support sourcing negotiations and procurement process improvement

Value Achieved
Category savings through vendor negotiations supported by new spend analysis database.

Spending Analysis Selection and Deployment

Limited Brands selected The Dun & Bradstreet Corporation (DNB) to support these spend analysis efforts for the firm's ability to provide a universal supplier identifier, its DUNS numbers, to support the matching of disbursement transactions with corporate family hierarchies. In this way, Limited Brands could determine where it was doing business with the same suppliers and on what similar products and services to understand its leverage.

Kicking off the project in November 2001, DNB gathered historical data from across Limited Brand business units and built a comprehensive spend database. Today, Limited Brands updates the database once a month with feeds from its numerous financial systems to support on-going supplier relationship management and procurement activities.

Results

With quick and easy access to its spending across all units, Limited Brands has been able to garner significant savings in categories it has targeted for improvement. Limited leverages e-sourcing and e-procurement tools from Ariba Inc. to drive savings from a rationalized supply base once they have identified the opportunities with DNB-supported spend analysis. In several commodity categories where many suppliers where used to furnish similar or like items, the enterprise was able to rationalize its supplier base to a few strategic partners, saving on multiple invoice processing costs as well.

Lessons Learned

Jim Flynn, C.P.M., Manager of Strategic Procurement, Corporate Non-Merchandise Procurement Group at Limited Brands, warns companies not to underestimate the amount of effort and man hours devoted to data collection, validation, and aggregation to create the initial spend "landscape." Internal people are the ones who know the organization and systems and they have to gain the support of finance and technology to support the effort. He notes spend analysis initiatives are cross-functional efforts and successful project teams need to be staffed accordingly.

He also notes that technology is not a panacea for curing inefficient procurement practices, and you still need skilled professionals with domain and market place expertise to create the events and support the actual negotiations that go on to garner the potential savings opportunities identified through thorough spend analysis.
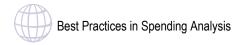
"You can't short-cut the time it takes to learn an industry or marketplace dynamics," he said.

Future Outlook

Looking ahead, Flynn says Limited Brands will continue to leverage the spend analysis data base to attack spend categories and understand baselines and internal stakeholders. It is finding it can export reports from the DNB data into Excel and upload them easily into Ariba sourcing to shave time off sourcing project analysis and negotiation preparations as well.

Limited Brands also plans to leverage the Ariba Buyer, Contract Management and Invoice modules to track some of its indirect service providers where appropriate, like ar-

mored car services, for example, where it had few purchasing compliance mechanisms in the past. He noted those capabilities have forced the procurement professionals sourcing and developing contracts to think differently about how they have structured their agreements, consider what is important to the enterprise and how to constantly strive for operational excellence and results, making improving procurement an on-going initiative.

MasterBrand Cabinets Opens the Door to Centralized Procurement Success with Spend Visibility

Business Challenge

With 8 divisions and 5 legacy systems, MasterBrand Cabinets had a tremendous opportunity to leverage its spending power, but procurement was diluted amongst the divisions and approximately 19 different manufacturing locations.

In the past, the company used a divisional purchasing approach, which caused it to forfeit some of its sourcing leverage, according to Aaron Songer, sourcing analyst at MasterBrand. Its ability to collect and analyze data across the different business units was hindered by manual, labor-intensive and non-repeatable processes.

Spending Analysis Strategy

Identifying a centralized approach to procurement as a key strategy to savings, the Jasper, IN-based company created a single purchasing group with the mission to reduce costs, manage and improve supplier performance, and use technology to reduce non-value additive administrative activities. First and foremost, though, the group needed to get visibility into spending categories to identify areas for aggregate strategic sourcing potential and to try to quantify savings opportunities.

Spending Analysis Selection and Deployment

Best Practices in Spending Analysis

Company Name

MasterBrand Cabinets Inc.

Solution Providers

Verticalnet Inc.

Business Challenge

Little ability to collect and analyze data across divisions hindered effectiveness of centralized procurement initiative.

Strategy

Create a single procurement group with the mission to reduce costs, manage and improve supplier performance, and use technology to reduce non-value additive administrative activities.

Value Achieved

Spending analysis solution has dramatically reduced information gathering and analysis cycles and supported significant strategic sourcing efforts.

MasterBrand's sourcing team wanted to be able to classify and categorize all of its spending consistently, but felt strongly that simple characteristics, such as supplier name or a UNSPSC taxonomy, were not adequate. It wanted a solution that allowed it to classify spend commodities with enough depth to support improvement activities on an on-going basis.

The company selected the Verticalnet Spending Analysis solution because, from the evaluation team's perspective, Verticalnet was the only vendor it looked at that combined data cleansing and normalization capabilities with easy-to-use analytics. It also appreciated Verticalnet's own sourcing expertise and its ability to work with MasterBrand's existing information technology infrastructure.

The system went live in the spring of 2002 and today MasterBrand pulls information from 5 different legacy systems, updating data monthly. The application is accessible to all MasterBrand divisions and includes 100% of direct spend, mapped in a customized categorization tree with details down to the SKU level.

Results

The tool has dramatically reduced the cycle time and pain for collecting information, Songer noted. Today the sourcing team at MasterBrand is able to collect the data it needs for new negotiations and analysis in minutes, as opposed to days or weeks in the past, when it had to involve other people and resources in the organization as well.

Songer noted spending analytics has been critical in helping the purchasing group to meet its goals by allowing the group to manage its spend in periods of increasing and decreasing markets. Specifically, it has been leveraged to drive savings across multiple commodity groups and divisions, which has contributed to "solid" ROI on the project.

Lessons Learned

To start, companies should be wary of the challenge caused by incomplete, inconsistent data in their own existing systems and the need to create a hierarchy as the backbone to cleansed and normalized data. Of note, MasterBrand took a commodity-by-commodity approach that let individual sourcing teams get started seeing benefits without having to wait for the whole implementation.
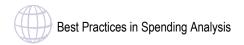
It is also important to get stakeholder buy-in and thorough training to ensure usage of the system and that value is achieved. For MasterBrand, though, the value of the system implementation has been transformational.

"The spending analysis tool in and of itself is the primary data tool we use to do our jobs in Sourcing," said Songer.

Future Outlook

Following its success with direct materials, MasterBrand is preparing to tackle indirect categories of spend. The challenge is, as always, having good data on these particular goods and services purchases, so it will need to start cleansing data before it can fully establish a categorization hierarchy and do serious normalization and analysis.

MBCI has found significant value in using the tool and leveraging it in areas that make sense, across the business. Finally, it is integrated with Verticalnet's Supplier Performance measurement module to add a qualitative aspect to the spend analytics.

Owens Corning Building Global Procurement Excellence on Spending Analysis Success

Business Challenge

With almost $5 billion in revenue, Owens Corning spends $3 billion a year on purchased goods and services, two-thirds on direct materials and one-third on indirect. However, the provider of building industry and composite materials had limited granular visibility into its total company spending details, making it difficult to identify opportunities to leverage spend and renegotiate rates, monitor and drive compliance to national contracts, and reduce and manage its supply pool.

Spending Analysis Strategy

To improve its procurement position, the Toledo, Ohio-based company identified purchasing expenses as an area for cost improvement and wanted to form commodity teams to identify areas of spending savings. But team members were still hobbled by poor access to data, manually collecting details on categories of spending, and struggling to "know who to call in a business to get it."

"We wanted to spend more time acting on data than digging for it," said Kirk Peterson, E-sourcing project leader at Owens Corning.

Spending Analysis Selection and Deployment

Best Practices in Spending Analysis

Company Name

Owens Corning

Solution Providers

Emptoris Inc.

Business Challenge

Limited spending visibility to support strategic sourcing and procurement optimization activities

Strategy

Empower newly formed spending commodity teams with easily accessible data on spending and vendor commitments to fuel cost reductions and improved supplier management.

Value Achieved

Easily accessible enterprise-wide spending analysis capability has supported commodity team savings initiatives, which have garnered more than $2 million in savings since the solution has been in place.

To streamline the data gathering process and make the details collected more meaningful, the company undertook a comprehensive sourcing exercise to identify a spending analysis solution provider that could collect and classify all of its purchasing information. The company evaluated eight providers before conducting demonstrations with three months of historical Owens Corning spend data with three short-list vendors.

Owens Corning employee demo attendees were asked to rate performance on functionality and capabilities, including ease of use, accuracy in data mapping, and expertise in data collection and cleansing. Following this weighting exercise, Owens Corning chose the ExpenseMap solution from Emptoris as the winner.

Owens Corning kicked off its implementation of ExpenseMap in September 2003 and it took approximately three months to collect the data and four months to establish a hierarchical category scheme and build automatic data extraction programs from the source systems, according to Peterson. The solution collects its purchasing transaction-level data from a number of instances of the enterprise resource planning system SAP, as well as a small amount from its procurement card vendor American Express, and currently incorporates $6.5 billion of historical spend from 2003 and 2004.

Results

Today approximately 200 Owens Corning employees access the premised-based application analyzing 100% of spend enterprise-wide, with 90% at Level 3 transaction detail. Peterson notes that Owens Corning is now able to cut its spending data "29 different ways" very easily without having to enlist information technology (IT) support to develop reports. In addition, the data is accessible to people across the company, for example, strategic sourcing professionals can access it for market making activities, as well as buyers in individual plants with specific needs.

"It is not one or two people who have the knowledge in the company, everyone has it," said Peterson. "It changes the game."

The spending analysis tool has enabled Owens Corning to apply the same discipline for direct materials to more neglected areas of the company checkbook, like business services. "We always had a handle on the [direct] materials side, but [Emptoris] helped us map our spend on the services side."

This insight has fueled sourcing negotiation savings upwards of $2 million since the spending analysis project has been in place. The savings were gained from leveraging volume spend and consolidating vendors, driving compliance to contracts, and driving vendors to standard pricing terms and conditions.

Lessons Learned

Noting that a vendor demonstration with the company's own data was "eye opening," Peterson stresses that ease of use has been critical to the success of the spending analysis system at Owens Corning. But he warned companies need to be diligent in their own data classification efforts following a spending analysis program as bad data will continue to plague improvement programs.

Future Outlook

In the near future, Owens Corning plans to incorporate inflation data into its spending analysis to better prepare it for budget planning and vendor negotiations. It will also be able to bring pending new plant acquisitions up into its national spending agreements very quickly, as it can identify appropriate suppliers and national contracts the new locations can take advantage of immediately.

In addition, within the next year, Owens Corning wants to double the number of users of the ExpenseMap system, and expand it to additional categories of spend, such as employee-initiated travel and expense dollars. Finally, it is even considering offering its suppliers restricted access to the tool, to allow them to identify additional opportunities for savings.

PPG Gains Clear View of Purchasing Spend through Analytics Solution to Drive 10% Hard Dollar Savings

Business Challenge

With more than $5 billion in spending across more than fifteen business units offering products from industrial coatings to insurance, PPG Industries Inc. knew it had considerable leverage with suppliers if it could establish a centralized, controlled procurement discipline backed by comprehensive information and analytics.

Spending Analysis Strategy

To reach that goal, the company set a strategy of consolidating its global spend information in a single data warehouse, which it would leverage to aggregate spend within commodities for aggressive renegotiation. Additional objectives included improved data classification, enhanced spend information available online, and supplier and maverick spend reduction as well.

Spending Analysis Selection and Deployment

PPG made an investment in data warehouse software in 2000 to support cross-functional commodity improvement teams formed around opportunities that could be identified through the consolidated spending data. Providing access to the system to its purchasing professionals worldwide since June 2001, the Pittsburgh-based company pulled from more than 23 data sources, including five different enterprise resource planning (ERP) systems and its purchasing card program, and established monthly refreshes of data.

Best Practices in Spending Analysis	
Company Name	
PPG Industries Inc.	
Solution Providers	
Ariba Inc.	
Business Challenge	
Widely distributed organization with considerable spending power underutilized	
Strategy	
Develop spend management strategy leveraging central data warehouse and spending analytics solution to support spending aggregation, information access, and strategic sourcing.	
Value Achieved	
Today 95% of spend is under centralized control, resulting in 90% supplier reduction and 10% overall savings.	

However, while the data warehouse provided a technical solution to aggregate information, it was weak in supporting actual analysis of the spending, because the data detail was incomplete and inconsistently classified in many cases. At the same time, the data analysis tool PPG was using was difficult to use and customize, making repeatable analysis difficult, according to Jim Polak, Director, General Purchasing, at PPG.

To increase productivity and savings potential, PPG turned to Ariba Inc. to provide targeted spend management capabilities, including an easy-to-use "dashboard"-like ability to drill down on and navigate the data in the warehouse. In late 2003, the company rolled out Ariba Spend Analysis, the FreeMarkets QS (QuickSource product, since acquired by Ariba), as well as the SoftFace data cleansing application (also acquired by

Ariba). Interestingly, while the company had used a reverse auction tool in the past, it had not invested in a catalog e-procurement program such as Ariba Buyer.

Results

Today the company has 95% of indirect spending under central visibility and control with the help of the data warehouse initiative and Ariba solutions, and every PPG professional buyer has access to spending data to support improved strategic decision making. Over $200 million has been sourced through the Ariba solutions to date, resulting in 90% supplier reduction and 10% savings in overall costs.

People on the cross-functional teams are excited about the results, and the solution has facilitated a new level of collaboration at the company.

"Data is the fuel for everything we are doing in spend management and e-sourcing," said Polak. "If you have good clean data, suppliers want to do business with you because you make it easier for them to quote, fulfill orders, to put together [an e-sourcing] event, and to implement the offer after the event is done."
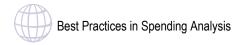
Lessons Learned

Stressing that leveraging total corporate spending as the key to significant savings, Polak noted that good data drives the ability to analyze spending, supports the request for quotation (RFQ) and sourcing process, and underpins agreeable supplier interactions. PPG's data was not of the best quality when the company initially undertook the initiative, and the Ariba tools made it easier to work with.

He also noted companies must work closely with their information technology teams to enhance existing IT assets and systems, and not completely replace them. They must also keep in mind how their organizational structure is able to act upon data findings from spend analysis, as that is where the real wins are gained.

Future Outlook

Looking ahead, PPG plans on leveraging its spend analysis and management tools to unlock additional savings in its procurement operations. It estimates it is missing 3% in savings because of bad data initially captured in its ERP and other systems and can go after an additional $2 million in spending that was lost in the data because of poor detail visibility. It also plans to roll-out its implementation of spending analysis more broadly across the company particularly to increase usage and adoption in Asia, where it wants to take more advantage of low-cost-country sourcing opportunities.

Vought Aircraft Industries Reaches Comfortable Altitude of Spending Analysis Visibility to Fuel Improved Indirect Procurement

Business Challenge

As one of the largest aerostructure subcontractors in the world, Vought Aircraft Industries Inc. had a good handle on its direct manufacturing costs as it serves giant aircraft manufacturers like Boeing, Lockheed Martin, and Northrop Grumman. The Dallas-based firm had less of a grip on indirect expenses like maintenance, repair, operations (MRO), janitorial and office supplies, however, which amount to over $100 million in expenses for the $1 billion company each year.

Spending Analysis Strategy

Vought wanted to apply similar procurement discipline to its indirect categories of spend as it did to its direct expenses, but it had poor visibility because it was using multiple procurement and payment methods to purchase indirect goods and services. "Communication between the multiple systems was difficult," said Pam Stewart, Vought Materiel System & Process Integration. "We wanted to get our arms around [indirect spending] but we did not have the resources or software to do it."

Spending Analysis Selection and Deployment

To gain centralized and meaningful visibility into its indirect expense commitments, Vought wanted a solution that could serve its mid-size company needs for a solution at a reasonable price. As a customer of its e-procurement solution, Vought engaged Ketera Inc. to compile a single view of its indirect purchase history from its various systems in late 2002.

Stewart noted that one of the complications of the indirect spending situation was the fact that indirect goods and services from the same supplier were being paid for by purchase order-related invoice, purchasing card, and check request, and each of the systems referred to suppliers differently (for example, supplier ABC was listed under ABC Company, The ABC Company, and XYZ, a Division of ABC Co.) So Vought also worked

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Best Practices in Spending Analysis

Company Name

Vought Aircraft Industries Inc.

Solution Providers

Ketera Inc.

Business Challenge

Wanted to apply procurement discipline to indirect categories but lacked the tools and resources to understand spending to plot improvement strategy

Strategy

Consolidated, cleansed, and categorized data to support spending compliance with preferred vendors, policies, and payment methods.

Value Achieved

Today 100% of applicable indirect spending is being analyzed and hard and soft dollar savings has been achieved through improved supply relationships.

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with Ketera to categorize and normalize its indirect spending over an initial eight to 10 week period.

At the end of the opening project, Ketera prepared a series of spending analysis reports from its Web-based tool for Vought staff to slice and dice by supplier, product, and size of spend to plot improvement ideas for vendor aggregation and compliance with pre-ferred source directives. For example, it discovered it was using upwards of 30 suppliers for a particular category, and only 60% of the spend was actually going to its preferred supplier. In addition, it found it was often accepting all three forms of payment (PO-related invoice, P-card, or check request) from the same supplier when it had a preferred method of payment as well.

Results

Since deploying the Ketera solution, Vought has been able to renegotiate a number of supplier relationships. Strategic sourcing professionals use the tool the most frequently at the firm, and have been able to gain significant savings with preferred suppliers by ag-gregating the spend at an enterprise level for certain categories.

Today the company is analyzing the vast majority of indirect spend and plans to do major refreshes of the data once or twice a year. It has cut-off non-preferred procurement and payment methods for specific suppliers and categories to deter maverick spending and save payment processing costs as well.

Lessons Learned

Since the spend analysis engagement, the company has experienced improvements from actions taken to enforce the supply agreements and policies it had in place. It closed open purchase orders to non-preferred suppliers that contributed to maverick spend, and it enforced its preferred payment mechanisms. Therefore, companies should note they need to act on the data in order to see real improvement.

Future Outlook

Moving forward, Vought has contracted with a comprehensive procurement ser-vices provider to manage its indirect procurement, recognizing that it had not been a core com-petency. However, it plans to keep the Ketera spend analysis solution in place to monitor indirect supplier consolidation, as well as product and process standardization initiatives.

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Tim A. Minahan,
Vice President and Managing Director
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Tim Minahan is vice president of supply chain management research for Aberdeen Group, Inc., a Boston-based market research and positioning services firm. In this role, Minahan provides analysis and assessment of software and services that automate and streamline procurement, sourcing, design, and supply chain management operations.

Minahan specifically focuses on total cost management (TCM), which is an organizational and technological framework for managing the total cost of ownership of supply relationships. Within TCM, Minahan tracks spending analysis, sourcing, procurement execution, contract management, and supplier performance measurement technologies. Minahan also covers product life cycle management (PLM) technologies and their convergence with TCM. Minahan continually consults with early implementers of these applications to identify world-class supply management strategies and to determine the strengths and weaknesses of technology solutions and services that are competing in this market.

His current research efforts include Aberdeen's quarterly E-sourcing Index (ESI), as well as benchmark studies on e-procurement success strategies and contract management best practices.

Christa Degnan,
Research Director
Supply Chain Research
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Christa Degnan has more than a decade of technology industry experience focused on interpreting the business value of enterprise solutions. At Aberdeen her work has included the examination of expenditures and purchase processing requirements of businesses and public sector organizations, analyzing how technology and change management strategies can help organizations optimize their operational dollars, eliminate risk, and increase business flexibility and market responsiveness.

To provide insight into the value to be gained from optimization activities, she conducts extensive research into solution functionality and end-user implementation experiences of supply chain technologies. This has enabled her to help enterprises achieve successful deployments and to advise solution providers on how to develop their offerings to best meet enterprise needs.

Degnan holds a B.A. from Barnard College, Columbia University, incorporating studies at University College, University of London. She holds an M.A. from the University of Massachusetts, Boston.
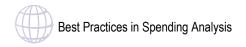
Appendix A:
Research Methodology

I n August and September 2004, Aberdeen examined the spending analysis strategies and solutions of more than 30 enterprises in a variety of industries, including manufacturing, professional services, and retail.

Enterprise spending analysis deployments were assessed based on the following criteria:

- Percentage of total spending being classified and analyzed

- Breadth and scope of spending data analysis deployment

- Reductions in supply costs from improved visibility into spending

- Process cycle and cost efficiencies gained through automated spending analysis

- Improvements in compliance, budgeting, risk mitigation, and other business issues impacted by spend data

- Alignment and integration of spending analysis initiative with broader supply management and business strategies.

Aberdeen began with an initial blind screening of nomination forms describing the scope, solution selection, deployment, and performance attributes of spending analysis implementations. This initial screen was used to identify spending analytics best practice "finalists." Aberdeen analysts conducted in-person and/or telephone assessments of each finalist before selecting the winners.

Solution providers recognized as sponsors of this report were solicited after the fact and had no substantive influence on the direction of the *Best Practices in Spending Analysis Report*. Their sponsorship has made it possible for Aberdeen Group to make the report available to readers at no charge.

Appendix B:

Related Aberdeen Research & Tools

Related Aberdeen research that forms a companion or reference to this report include:

- *The Spending Analysis Benchmark Report: Dissecting a Corporate Epidemic* (January 2003)

- *Spending Analysis: What You Don't Know Is Hurting You (*January 2003)

- *The Category Spend Management Report Series 2004: Contract Labor (*March 2004)

- *The Category Spend Management Report Series 2004: Travel – Beyond Convenience and Safety – Making Visibility Pay Off (*June 2004)

- *The Category Spend Management Report Series 2004: Telecommunications – Spend Under Control Key to Cost Savings (*June 2004)

- *The Category Spend Management Report Series 2004: Advertising, Marketing, and Printing – Policies Precede Procurement Automation but Technology Ensures Compliance (*September 2004)

- *Best Practices in E-sourcing: Optimizing and Sustaining Supply Savings (*September 2004)

Information on these and any other Aberdeen publications can be found at www.aberdeen.com.

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September 2004

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