



Optimizing Digital Sourcing for Raw Materials

Sourcing Value

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THE INCREASING NEED TO ACCELERATE DIGITAL TRANSFORMATION FOR RAW MATERIAL SOURCING



One of the most volatile eras in the history of commodities markets kicked off in 2018 when the USA introduced Section-232 tariffs on imported Steel (25%) and Aluminum (10%). The volatility that began there has extended to oil & gas, resins, plastics and many other Raw Materials, as well as energy and transportation prices. After 2018, a continuous string of disruptive events, including the COVID pandemic, several catastrophic weather events such as the Texas Freeze and more recently, the war in Ukraine and global hyperinflation have prevented the markets from returning to a normal state. For most industrial OEMs, **Raw Materials make up 30-50% of COGS**, and the volatility has created a dire need to **rethink sourcing strategies**, along with the distribution of risk in the value chain. Despite this strong call to action, OEMs have been slow to gather enough comprehensive necessary to build and enact meaningful Raw Material strategies. This paper will argue that the root cause lies within the increasing need to manage complex data as well as the inability of the current digital procurement offerings to address the unique requirements of Raw Materials.

A New Chapter in Raw Materials Sourcing: Digitalization

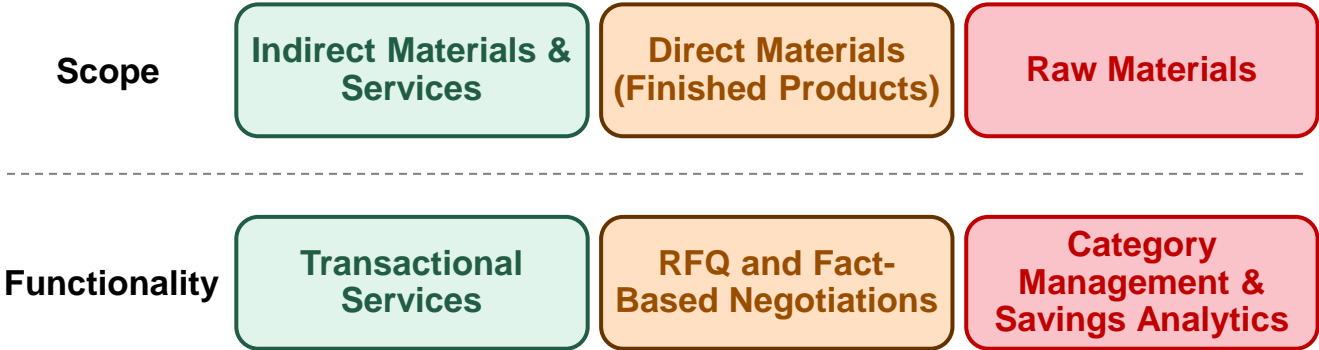
Standard digital procurement tools on the market today can be broadly defined as either Procure to Pay or Source to Pay:

- ❑ Procure-to-Pay focuses on transaction steps from purchase requisition to final payment.
- ❑ Source-to-Pay includes strategic sourcing activities, from supplier identification to RFQs.

Source to Pay is the more relevant functionality driving the ability to address cost competitiveness and volatility. However, the more prominent tools in the digital procurement space have focused mainly on Procure to Pay, while only incorporating surface level functionality and domain-specific needs for Source to Pay. This is especially true for the Raw Material spend category, which has been neglected in favor of a focus on Indirect Spend categories and a one-size-fits all approach to sourcing workflow automation.

The issue with this approach, is that while Raw Material sourcing might follow a similar workflow to other sourcing categories, it has a unique set of both data and business logic requirements that are far more complex. Thus, while digital procurement tools have made significant progress towards supporting Indirect Spend categories, Raw Material teams are consistently confronted with roadblocks that require manual analysis in excel and make large strategic initiatives less viable and less successful.

Scope and Functionality Gaps in the Digital Procurement Space



Addressing the Gap in Raw Material Scope: Data Requirements

At the center of understanding the unmet need for Raw Materials sourcing are the incremental and complex data requirements relative to other spend categories.

To ensure success of a digital solution for Raw Materials, it is not sufficient that all relevant data elements exist together in a single platform, but the platform must also have enough robust programming to understand and link the different types of data and guide the user towards savings insights.

Core Data Elements

- Standardized Raw Material specifications
- Price, Volume and Spend: Forecast and Actual
- Raw Material to Finished Part mapping
- Price details with granular break-down by specification
- Suppliers list incl. capability matrix mapped to standard specifications
- Contract data, including codified price adjustment mechanisms
- Commodity indices: Forecast and Actual

In Practice: Raw Material to Finished Part Map

Value Chain Type: Resale
1 Steel Mill, 1 Processor, 1 Component

| Stage | Material ID | Supplier ID | Width | Cost/Price |
|---------------------------------|-------------|-----------------------|--------|----------------------------------------------------------------------------------------------------------|
| Steel Mill (Master Coil) | FCS.MC.2 | Arcelor.Burns Harbor | 72 in. | Landed Cost: \$750/MT Resale Price: \$900/MT |
| Processor (SIR Coil) | FCS.SC.2 | Worthington.Cleveland | 36 in. | Resale Sell Price: \$900/MT Supplier VA/Net Cost: \$100/MT Total Landed Cost: \$1,000/MT |
| Component (Stamping) | STMP.2 | Alpha.Detroit | | Resale Sell Price: \$1.03/piece Supplier VA/Net Cost: \$0.40/piece Total Landed Cost: \$1.43/piece |
| OEM | | | | Delivery Plant |

Benefits of Mapping Coil to Part

Maintain full transparency of the value chain

Audit expected scrap amount vs. reported by supplier

Implement scrap recovery with the ability to enforce it

Automatically recalculate price of parts in multi-tier value chain

Control costs from each step (material, slitting, stamping etc)

Nearly all major buyers of Raw Materials are working with or aspire to work with Directed Buy and/or Resale programs. These programs involve directly purchasing or negotiating the Raw Materials that will be used in Finished Parts and are considered best practice because of the ability to build greater leverage with suppliers. However, they also create increased risk exposure due to the incremental data transparency requirements. For example, without the ability to map Raw Materials to their Finished Parts, OEMs must rely on Finished Parts suppliers to correctly implement the negotiated Raw Material pricing. This creates an environment of pricing opacity.

The ability to maintain control of price and data transparency in complex, multi-tiered value chains creates savings by avoiding the billions of dollars that are lost each year on both honest and dishonest errors due to commodity price inflation and deflation.

Addressing the Gap in Functionality: RFQ & Fact-Based Negotiations

While RFQs are now prevalent functionality across most digital platforms, simply digitalizing the process has done little to boost savings for Raw Materials as it has for Indirect Spend. In more mature sourcing categories like Raw Materials, nearly all incremental value comes from the ability to swiftly develop compelling, Fact-Based Negotiation strategies that go beyond Base price discussions to detailed cost breakdowns, along with the ability to execute supplier changes without disruption to the overall value chain.

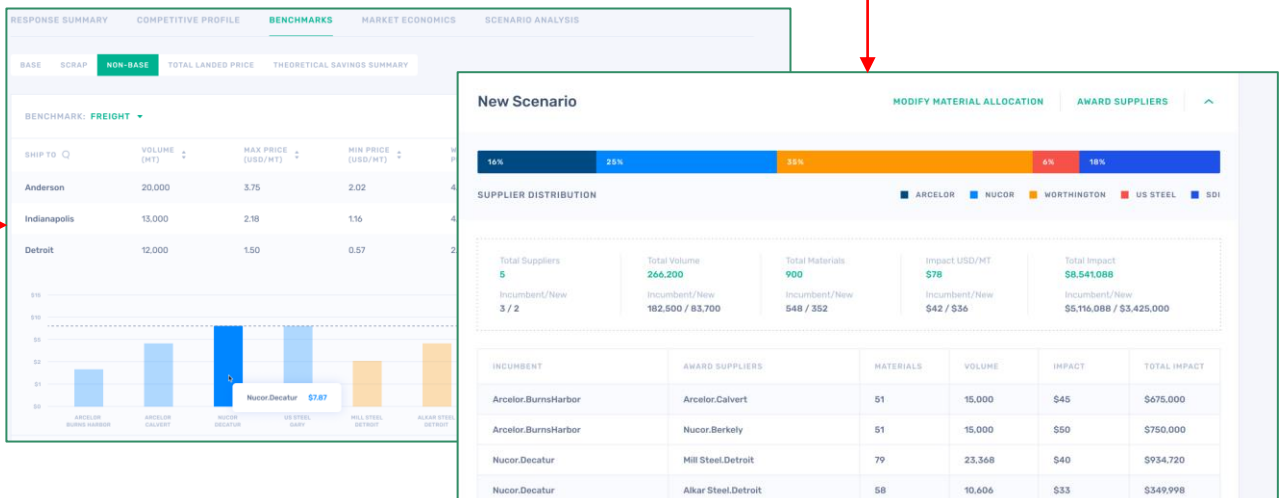
Many global Raw Material buyers have had success in collecting detailed cost breakdowns, but quickly discover that a growing database of price granularity creates an untenable amount of analysis requirement. This leads to Base-price-focused negotiations, while insights into a supplier's true core competitive offering often lies within the detailed cost breakdown, including Non-Base Adders.

Similarly, most global Raw Material buyers have identified significant opportunities to rebalance their volume allocations as supplier capabilities and cost-competitiveness evolve over time. However, inability to coordinate such transitions is a common issue driven by the difficulty of balancing supplier qualifications, minimum savings thresholds, risk profiles, lead times and other variables into a fully optimized scenario. Without an occasional volume rebalancing activity, suppliers can aggressively price to win an initial award and then become uncompetitive in subsequent years with their volume security.

The ability to conduct Fact-Based Negotiations on granular cost breakdown of Base and Non-Base Adders along with the ability to execute supplier changes leads to an average incremental savings of ~6-12%.

In Practice: Core RFQ Requirements for Raw Materials

- Create detailed Fact-Based negotiations with both Base and Non-Base Adder benchmarks
- Develop fully optimized volume rebalancing scenarios across all major strategic and technical constraints
- Compare indexed vs. fixed price offers
- Compare Non-Base Adders pricing across suppliers
- Calculate market-adjusted savings



Sustainably Optimizing Digital Sourcing for Raw Materials

The incremental requirements for Raw Materials in a digital sourcing tool comes with complex data management. In order to keep users engaged and achieve the maximum value potential, data must always be kept up to date and accurate. Data transparency and integrity becomes even more imperative given the multiple steps in the complete Raw Materials sourcing process cycle, including category management with spend analytics, RFQ and Fact-Based Negotiations, new contract creation with complex scenario analysis and a requirement to feed data back to spend analytics. In today's digital sourcing tools, there is a lack of support for the complete process cycle, and deviation from one tool to another creates data gaps that prevent comprehensive and effective analysis. There is a dire need in the market for a digital sourcing tool that will address the unique, strategic sourcing and purchasing characteristics of Raw Materials, to enable effective analysis and create added value for procurement process optimization.

An effective digital sourcing tool must sit at the center of the end-to-end sourcing process, simultaneously creating new data through usage and providing updated analytics to power savings year over year.

