# EDI: Workhorse of the Value Chain

*A Closer Look at B2B Connectivity Benchmarks*
*in the Extended Supply Chain*

*11/20/2013*

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**Founder and CEO**

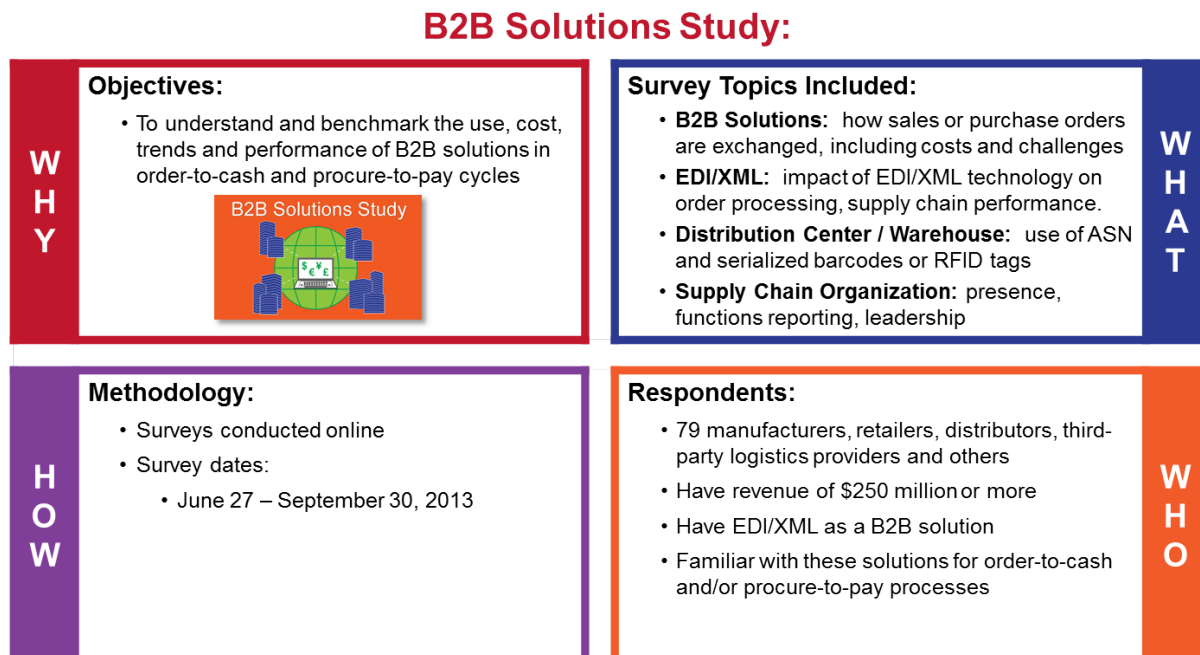**Supply Chain Insights LLC**

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# Research

Electronic Data Interchange (EDI) is now four decades old. Over this period, company processes have matured. Today, for companies using EDI/XML, roughly 1/3 of all orders are processed automatically (hands-free processing). When they are automatically processed, fulfillment is faster and the collection of funds happens more quickly with fewer errors. The net result is better customer service and faster cash-to-cash cycles.

As technology has evolved, the pace to automate the extended supply chain and improve connectivity has taken several twists and turns. Technologies like portals, trading exchanges, and business networks have evolved, making many believe that EDI is obsolete. Nothing could be further from the truth. It is the workhorse of the extended supply chain.

Progress has happened slowly primarily because many do not understand the benefits. The goal of this study was to better understand the current state of B2B connectivity. As part of the study, we surveyed to understand the use of EDI/XML and other forms of B2B connectivity. We also used the study to benchmark benefits and understand the barriers.

The respondents in this study were selected based on their understanding of the current state of B2B connectivity and were knowledgeable with mature B2B processes. In order to participate, respondents were required to have $250 million or more in company revenue, have EDI/XML as a B2B solution, and be knowledgeable of B2B connectivity in either order-to-cash and/or procure-to-pay processes.

**Figure 1. Overview of the Quantitative Study Used to Develop This Report**



## B2B Solutions Study:

**Objectives:**
- To understand and benchmark the use, cost, trends and performance of B2B solutions in order-to-cash and procure-to-pay cycles

**WHY**

**Survey Topics Included:**
- **B2B Solutions:** how sales or purchase orders are exchanged, including costs and challenges
- **EDI/XML:** impact of EDI/XML technology on order processing, supply chain performance.
- **Distribution Center / Warehouse:** use of ASN and serialized barcodes or RFID tags
- **Supply Chain Organization:** presence, functions reporting, leadership

**WHAT**

**Methodology:**
- Surveys conducted online
- Survey dates:
  - June 27 – September 30, 2013

**HOW**

**Respondents:**
- 79 manufacturers, retailers, distributors, third-party logistics providers and others
- Have revenue of $250 million or more
- Have EDI/XML as a B2B solution
- Familiar with these solutions for order-to-cash and/or procure-to-pay processes

**WHO**

Source: Supply Chain Insights LLC, B2B Study (June-Sep 2013)

# Disclosure

This analysis is an independent and objective report on the B2B Solutions Survey completed by Supply Chain Insights in the fall of 2013.

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# Executive Overview

The evolution of Electronic Data Interchange (EDI) standards and the evolution of Business-To-Business (B2B) connectivity processes are now four decades old. Most executives see the progress as slow and expensive. They are frustrated. They question the value.

Companies want to power value networks. They want to connect with trading partners. They want to make the process both faster and easier. As a result, many are asking, *"Does EDI use really matter? Is there value in the automation of B2B/EDI connectivity to power value networks?"* Increasingly, companies are looking for the truth. This report attempts to answer these questions.

Companies want to build value networks and connect with trading partners. In our work with manufacturing clients, we see that nine out of ten companies want to build a more effective end-to-end value network. There is a growing understanding that the enterprise-centric endeavors over the last decade have plateaued, and that there are significant costs and waste improvements to be had with the building of effective connectivity for the extended supply chain.

However, most companies see EDI, and the exchange of documents through established protocols, as old-school processes. They are looking for "a better mousetrap*."* In the last decade, many techniques evolved and they were overhyped. Early in the decade there were claims that XML was going to make EDI outdated.

Similarly, the use of business portals and business networks, sometimes termed trading partner exchanges, were touted as better ways of improving trading partner connectivity. The promise was lower cost, faster onboarding, and greater partner penetration. However, today EDI is the predominate method for B2B connectivity.

No company studied uses just one method for B2B connectivity. Connectivity between trading partners is usually a mix of portal, business network, and manual processes. While companies have invested in portals, trading exchanges, and automated business networks, the adoption is low. Portals are one-way communication. The use of portals is too passive and companies struggle to synchronize the many changes that occur in sales and purchase order processing through this passive form of connectivity. Likewise, the adoption of business networks in the establishment of B2B connectivity has been too slow. The networks require a mass of partners connected as a community, and this development has been too slow.

Among the EDI/XML users surveyed for this report, EDI is used nearly six times more frequently in the connection of trading partners than portals, and eight times more frequently than the use of business networks (e.g., trading exchanges or specialized industry hubs). We also find that the process of sales order management is more mature, and better automated, than those of procurement. EDI/XML is the *workhorse* of the extended supply chain.

Maturity in EDI/XML matters. In this study, we find that when companies successfully use EDI, there are REAL and meaningful business results. For example, when companies can achieve hands-free orders, order-to-shipment cycles decrease by 50%, there is greater accuracy in fulfillment, and business relationships improve. For more on this story, read this report.

# The Current State of B2B Connectivity

The journey for effective B2B connectivity is now four decades old. It is not new. Many executives see the progress as slow and B2B through EDI as tedious. Today, as shown in figure 2, one in three orders can move hands-free in business networks. The automation of sales processes is important for growth. Similarly, the automation of the procurement processes is important in order to take out the *friction* in B2B trade. B2B connectivity sounds easy, but the progress is slow because of the need for synchronization, data harmonization and data translation.

**Figure 2. Current State of Trading Partner Connectivity**
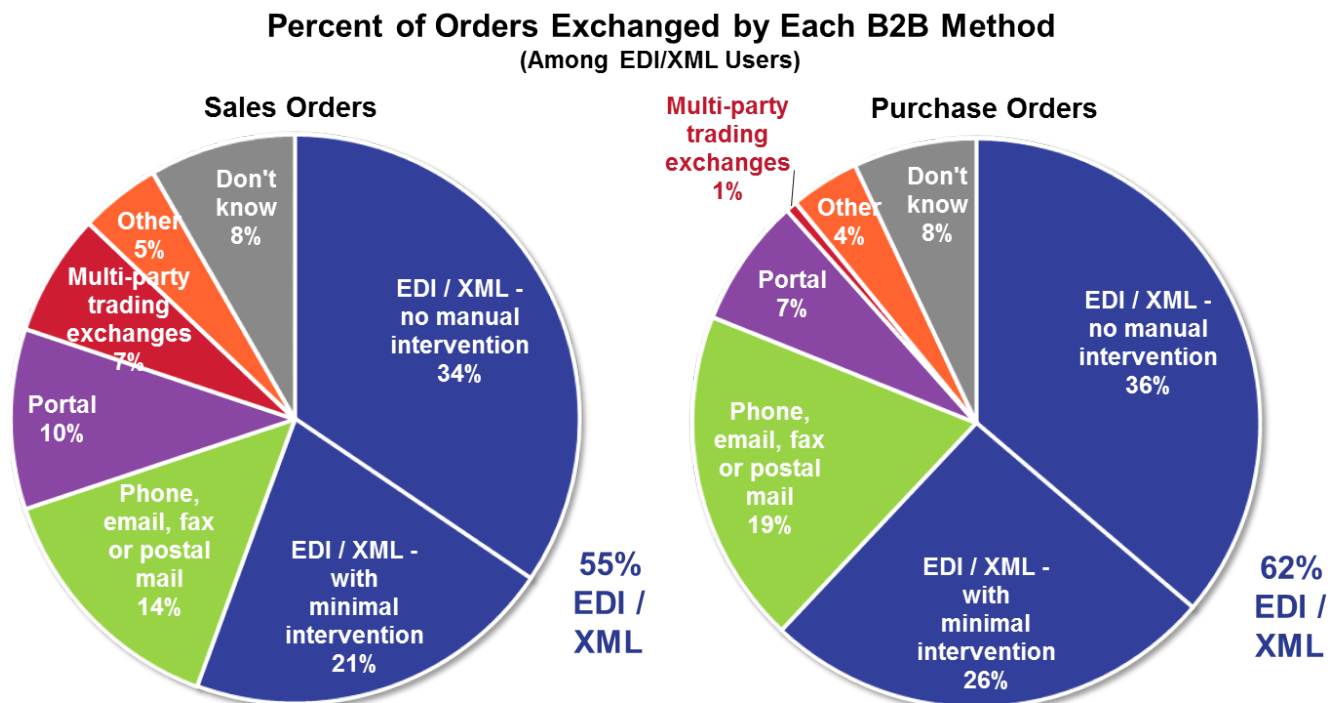


### Percent of Orders Exchanged by Each B2B Method
#### (Among EDI/XML Users)

**Sales Orders**

- Don't know 8%
- Other 5%
- Multi-party trading exchanges 7%
- Portal 10%
- Phone, email, fax or postal mail 14%
- EDI / XML - no manual intervention 34%
- EDI / XML - with minimal intervention 21%
- **55% EDI / XML**

**Purchase Orders**

- Multi-party trading exchanges 1%
- Don't know 8%
- Other 4%
- Portal 7%
- Phone, email, fax or postal mail 19%
- EDI / XML - no manual intervention 36%
- EDI / XML - with minimal intervention 26%
- **62% EDI / XML**

Source: Supply Chain Insights LLC, B2B Study (June-Sep 2013)
Base: Manufacturers, Retailers, Distributors, 3PLs and Other with EDI/XML – Sales Orders (n=36), Purchase Orders (n=43)
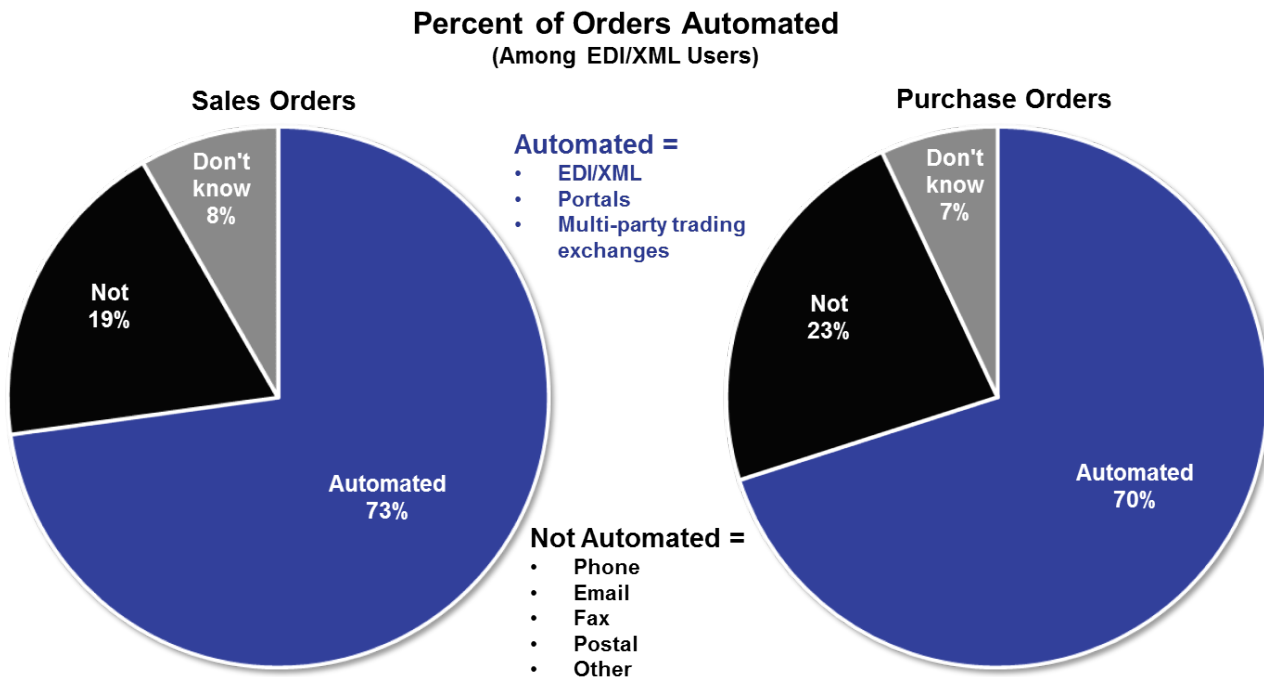Q11. Please indicate what percent of your company's sales orders are exchanged by the methods below. Please note that it should add up to 100%.
Q19. Please indicate what percent of your company's purchase orders move in the ways shown. Please note that it should add up to 100%.

Suppliers have less power than customers to define B2B programs; and, the programs over the last decade are more complex. To be effective in business relationships the company needs to be effective at the management of data in the value networks. As a result, the process for sales orders management is slightly more mature on the use of B2B connectivity than those in procurement (procure-to-pay).

Today, business networks are more complex. The number of change orders has increased. The percentage of new products launched and number of market offers (price, promotion and special packaging) has escalated. B2B connectivity is more important today than it was at the start of the decade.

**Figure 3. Current State of Trading Partner Connectivity (Automated vs. Not)**

## Percent of Orders Automated
### (Among EDI/XML Users)



**Sales Orders**

Don't know 8%

Not 19%

Automated 73%

**Automated =**
- EDI/XML
- Portals
- Multi-party trading exchanges

**Not Automated =**
- Phone
- Email
- Fax
- Postal
- Other

**Purchase Orders**

Don't know 7%

Not 23%

Automated 70%

Source: Supply Chain Insights LLC, B2B Study (June-Sep 2013)
Base: Manufacturers, Retailers, Distributors, 3PLs and Other with EDI/XML – Sales Orders (n=36), Purchase Orders (n=43)
Q11. Please indicate what percent of your company's sales orders are exchanged by the methods below. Please note that it should add up to 100%.
Q19. Please indicate what percent of your company's purchase orders move in the ways shown. Please note that it should add up to 100%.

To better understand these dynamics, we share detailed findings for the two processes as an overview of the quantitative project:

**Order-To-Cash Process Overview:**

- **EDI Hands-Free Orders Improve Order Cycle Times.** When orders are managed B2B hands-free (no manual intervention) through EDI/XML, the time from order receipt to shipment is halved. In the survey, the average response changed from three days—if the order could be received and processed without manual intervention through hands-free EDI—to seven days to ship an order that needs manual manipulation.

- **Progress Is Slow.** For these EDI/XML users, 34% of orders are moving through the systems hands-free. While it is hard to compare studies with different demographics, and with a different survey design, this is a 30% improvement over a prior analysis completed in 2004.

- **EDI Usage Reduces Fulfillment Errors**. Irrespective of how they are processed, over 40% of customer orders change at least once. Based on the survey results, we can clearly see that the use of EDI reduces errors and improves processing times.

- **Few Incentives to Use EDI in Trading Partner Relationships.** Despite the strong value proposition, only 6% of respondents offer order discounts to customers for using EDI for order processing.

**Procure-To-Pay Process Overview:**

- **Hands-Free Purchase Orders Are Approximately 1/3 of Order Stream.** For these EDI/XML users, 36% of purchase orders are handled through EDI without manual intervention while 26% are moving through the system manually.

- **EDI for Trading Partner Connectivity Is the Workhorse of the Industry.** After a decade of hype, the use of multi-party trading exchanges for purchase order fulfillment is in its infancy in procure-to-pay processes.

- **The Use of EDI Reduces Costs.** Today, an average of 30% of shipments are received without Advance Shipment Notification (ASN). Shipments without an ASN cost the average company an additional $78 per purchase order to process.

- **The Industry Is Slowly Making Improvements in B2B Automation through EDI.** In this study, 62% of purchase orders move through the system using EDI (EDI hands-free plus EDI with some manual intervention). However the need for manual intervention is directionally higher than that with customer orders.
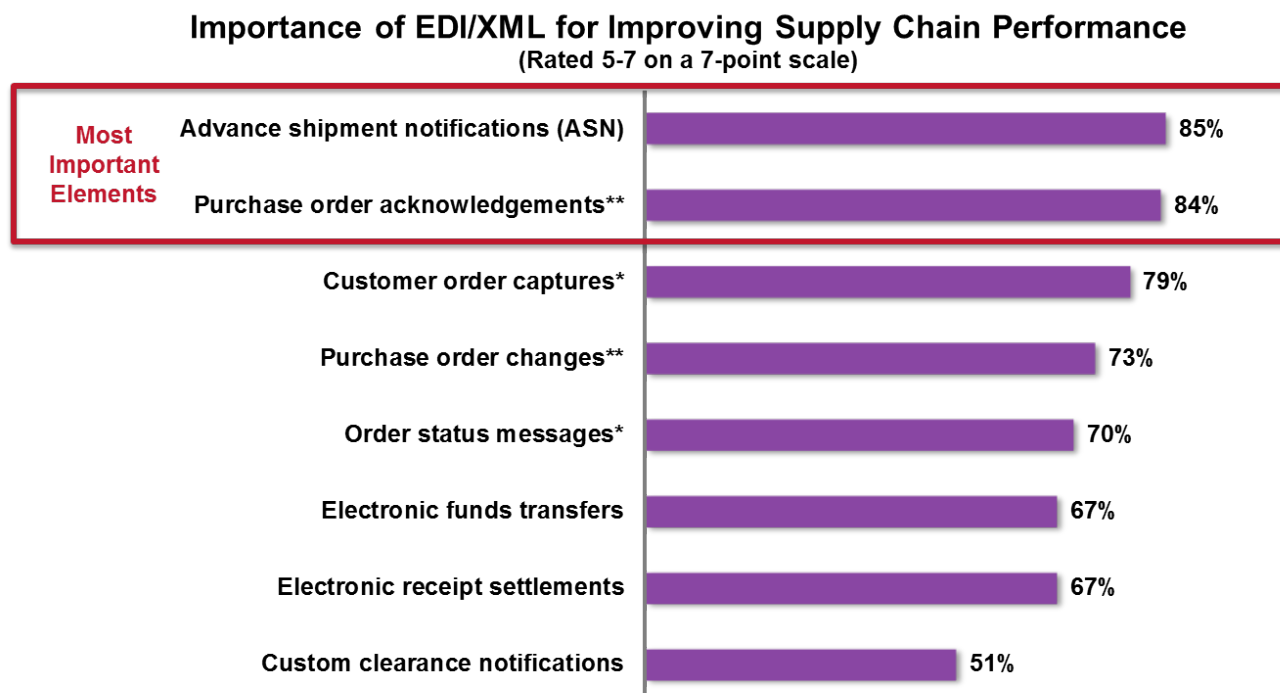
# Importance to Supply Chain Execution

The supply chain is becoming more complex and dependent on third-party B2B interaction. With the growth of global value networks, companies today are more dependent on B2B standards and connectivity. Documents like ASN and PO Acknowledgements take some of the "friction" out of the trading network, reducing the dependency on phone/fax and email communication. As shown in figure 4, it should come as no surprise to see Advance Shipment Notification and Purchase Order Acknowledgements ranked as the most important type of "document" or "message" for improving supply chain performance.

Supply chain flows are dependent on thousands of orders. They have growing complexity—order changes, master/blanket orders, drop shipments through third-parties, shipping compliance, receipt by a third-party or 3PL—that needs automation. Keeping the order/shipment data current and accurate is paramount to ensure quick and accurate receiving. The lack of ASNs and PO Acknowledgement leads to longer receiving times and lower efficiency due to unplanned shipments. The awareness/importance of these documents is a top-to-top discussion. However, as seen in this study, 30% of orders are still received without the issuance of a B2B document. This business pain is shown in figure 5.

Case automation is less automated. In this study, as shown in figure 6, one in two cases do not have a barcode or a RFID tag to accelerate warehouse receiving. The lack of case tagging and ASNs/Purchase Order Acknowledgement is estimated to cost $1.50 per order. As this cost is multiplied over thousands of orders, the cost becomes significant.

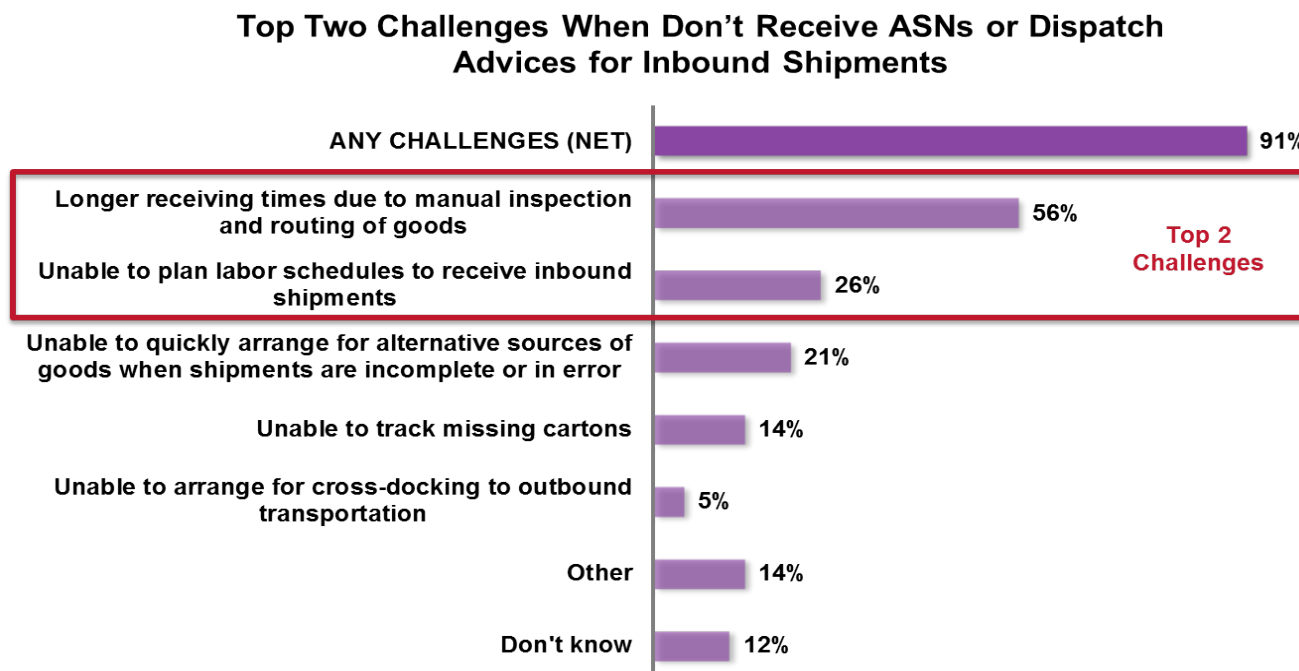**Figure 4. Types of EDI Documents That Are the Most Important to Improving Supply Chain Performance**

## Importance of EDI/XML for Improving Supply Chain Performance
### (Rated 5-7 on a 7-point scale)

| | |
|---|---|
| **Most Important Elements** | Advance shipment notifications (ASN) — 85% |
| | Purchase order acknowledgements** — 84% |

Customer order captures* — 79%

Purchase order changes** — 73%

Order status messages* — 70%

Electronic funds transfers — 67%

Electronic receipt settlements — 67%

Custom clearance notifications — 51%

Source: Supply Chain Insights LLC, B2B Study (June-Sep 2013)
Base: Manufacturers, Retailers, Distributors, 3PLs and Other with EDI/XML – Total (n=79)
Q31. How important is each of the following elements of EDI / XML technology in terms of improving supply chain performance? SCALE: 1=Not at all important, 7=Extremely important
*Asked of only those familiar with Order-to-Cash (n=76);  ** Asked of only those familiar with Procure-to-Pay (n=75)


**Figure 5. Top Two Challenges in the Supply Chain When ASNs Are Not Published through B2B Connectivity**

## Top Two Challenges When Don't Receive ASNs or Dispatch Advices for Inbound Shipments

ANY CHALLENGES (NET) — 91%

| | | |
|---|---|---|
| Longer receiving times due to manual inspection and routing of goods — 56% | | **Top 2 Challenges** |
| Unable to plan labor schedules to receive inbound shipments — 26% | | |

Unable to quickly arrange for alternative sources of goods when shipments are incomplete or in error — 21%

Unable to track missing cartons — 14%

Unable to arrange for cross-docking to outbound transportation — 5%

Other — 14%

Don't know — 12%

Source: Supply Chain Insights LLC, B2B Study (June-Sep 2013)
Base: Manufacturers, Retailers, Distributors, 3PLs and Other with EDI/XML and Familiar with Distribution Center/Warehouse Practices – Have some shipments without ASN (n=43)
Q37. What are the top two challenges your company experiences when you do NOT receive advance shipment notices (ASN) or dispatch advices? Please select no more than three.

With the pressure on IT costs, many companies are closely evaluating their EDI connectivity programs. The cost of automation is $0.01–0.02 per order; however, the cost to NOT automate (as shown by figures 6-8) is $78 per order on average. As a result, many companies are having discussions on how to reduce pennies when they should be changing the conversation to save dollars. With the thousands of orders processed, this impact is significant and important.

**Figure 6. Case Labeling Benchmarking**
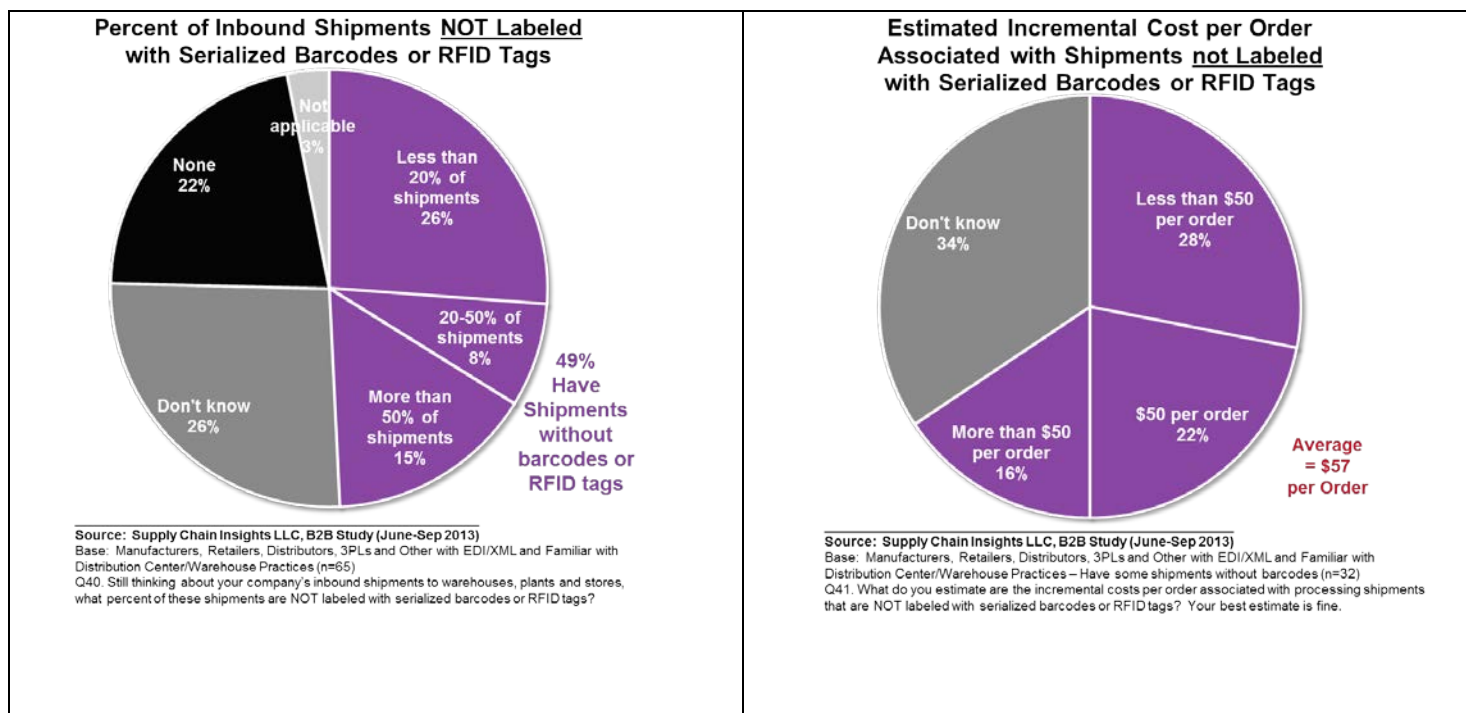


The impact of EDI/B2B is significant as shown in figures 7-8. It impacts costs, fulfillment and completion. Despite the many decades of work on EDI processing and ASNs, 30% of inbound shipments, in this study, still have no ASNs.

**Figure 7. Use of Advance Shipping Notifications (ASNs) and Incremental Costs without ASNs**

### Percent of Inbound Shipments Received WITHOUT ASN or Dispatch Advices

**Average: 30% of shipments have no ASN**

- None 11%
- Not applicable 6%
- Don't know 17%
- Less than 20% of shipments 28%
- 20-50% of shipments 12%
- More than 50% of shipments 26%

**66% have shipments without ASN**

### Estimated Incremental Cost per Order Associated with Shipments without ASNs or Dispatch Advices

- Don't know 47%
- Less than $50 per order 23%
- $50-150 per order 21%
- More than $150 per order 9%

**Average = $78 per Order**

**Figure 8. Impact of EDI Connectivity on Order Cycle Time**

### Business Days to Ship by Order Type

- ■ EDI/XML - No Manual Intervention — **Average: 3 days**
- ■ EDI/XML - With Minimal Intervention — **7 days**

| Business Days | No Manual Intervention | With Minimal Intervention |
|---|---|---|
| 1 | 39% | 31% |
| 2-4 | 14% | 19% |
| 5 | 19% | 14% |
| Over 5 | 8% | |
| Don't know | 19% | 19% |
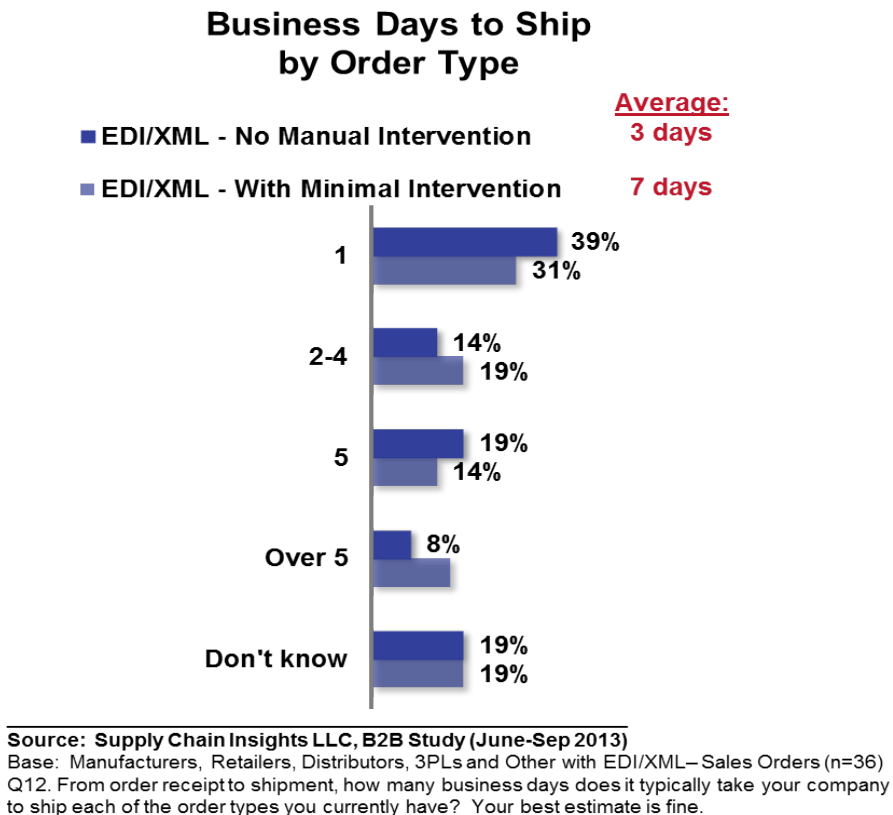
# Impact on Business Relationships

As shown in figure 9, the impact of B2B connectivity is significant in improving business partner relationships and order reliability. Ask any supply chain leader if they care about these two factors, and the response is a unanimous, *"Yes!"*

**Figure 9. B2B Connectivity: The Impact on the Supply Chain**

## Supply Chain Elements to Improve with EDI/XML Technology
### (Rated 5-7 on a 7-point scale)

■ Much better    ■ Better (total)

| Element | Much better | Better (total) |
|---|---|---|
| Business partner relationships | 28% | 85% |
| Order management reliability | 19% | 84% |
| Supply chain visibility of orders and shipments | 23% | 82% |
| Purchase order management reliability* | 24% | 80% |
| Automated receiving* | 28% | 75% |
| Supply chain planning | 22% | 70% |
| Contract and payment term management | 18% | 62% |

**Top Elements to Improve** (Business partner relationships, Order management reliability, Supply chain visibility of orders and shipments, Purchase order management reliability*)

Source: Supply Chain Insights LLC, B2B Study (June-Sep 2013)
Base: Manufacturers, Retailers, Distributors, 3PLs and Other with EDI/XML– Total (n=79)
Q28.Has your EDI / XML technology made each of the following components of your supply chain better or worse?  SCALE: 1=Much worse, 7=Much better;  *Asked of only those familiar with Procure-to-Pay (n=75)
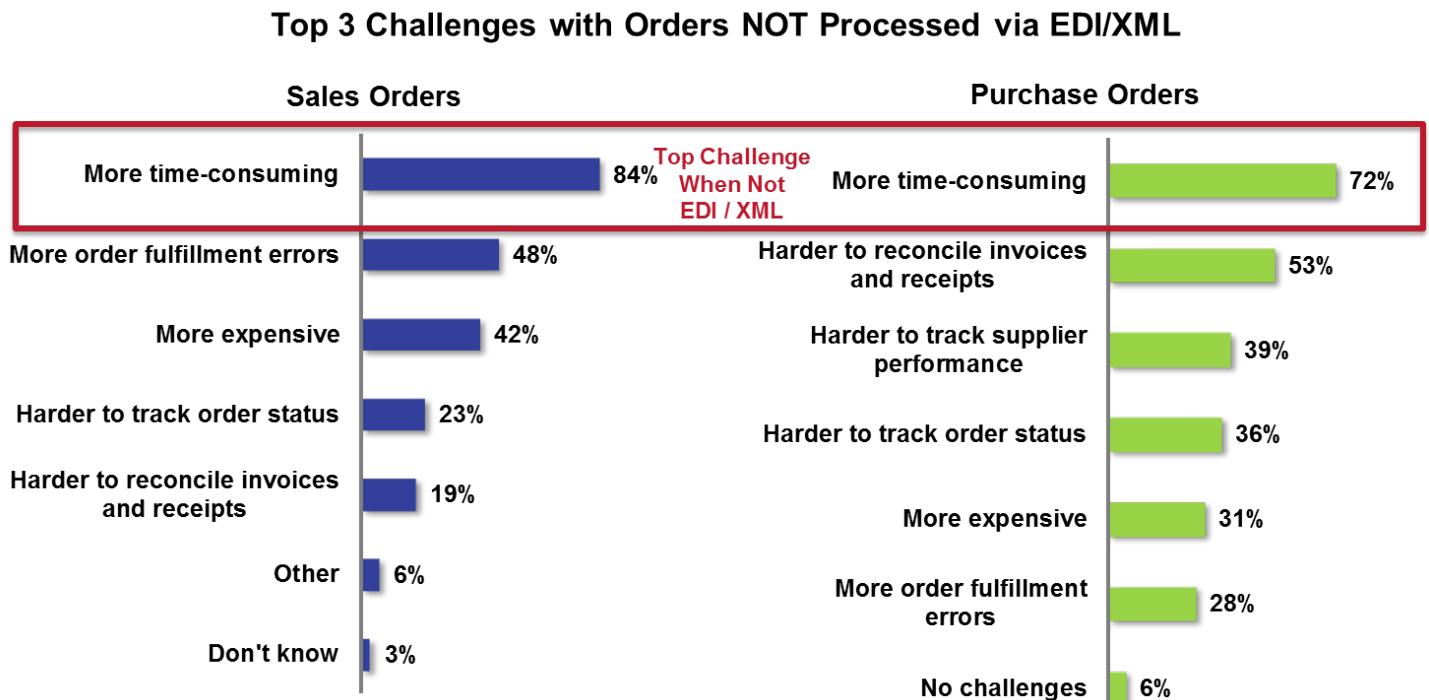
# Why EDI/XML?

While there are a lot of projects on how to build the end-to-end supply chain, there are few industry studies showing a definitive value proposition. This is one of the reasons that we find this data so compelling.

As shown in figure 10, orders not processed through EDI are more time consuming with more frequent errors. On sales orders, the errors lead to fulfillment issues; and in procurement, the errors lead to greater time in invoice reconciliation. As companies become larger, more global and with increasing complexity, investments in EDI connectivity are critical. There are just too many order changes, nuances, and reconciliation issues without it.

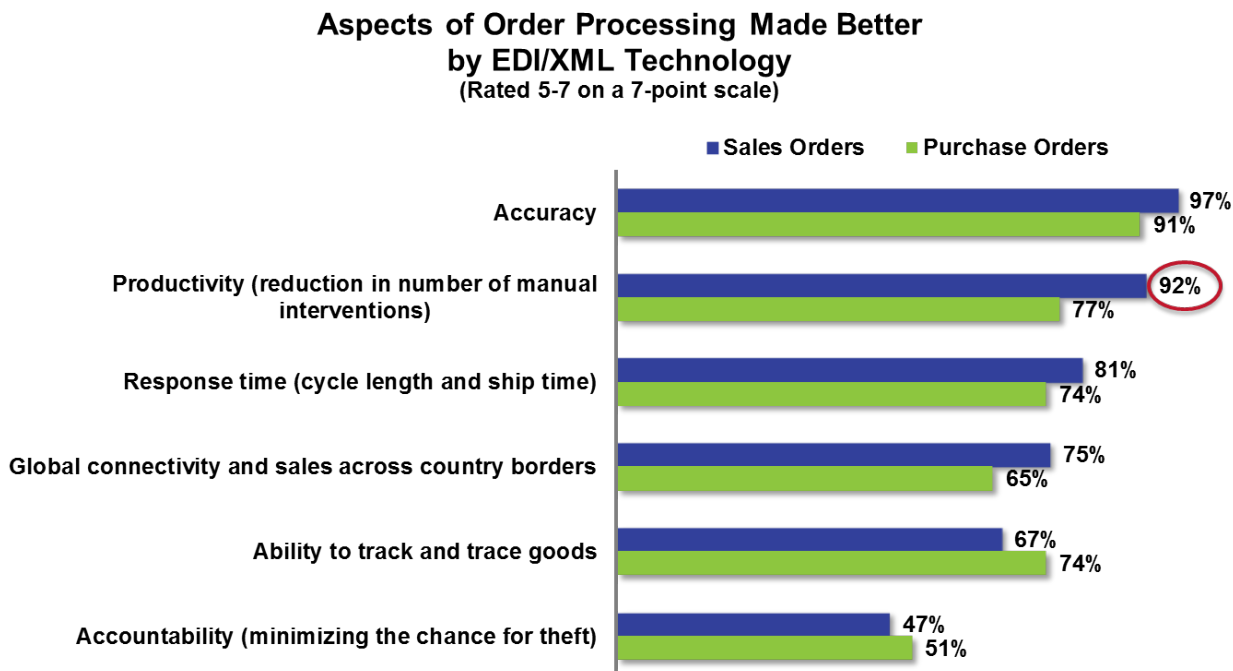**Figure 10. Challenges with Orders not Processed Using EDI/XML Technologies**

## Top 3 Challenges with Orders NOT Processed via EDI/XML

### Sales Orders | Purchase Orders

| Sales Orders | | Purchase Orders | |
|---|---|---|---|
| More time-consuming | 84% | More time-consuming | 72% |
| More order fulfillment errors | 48% | Harder to reconcile invoices and receipts | 53% |
| More expensive | 42% | Harder to track supplier performance | 39% |
| Harder to track order status | 23% | Harder to track order status | 36% |
| Harder to reconcile invoices and receipts | 19% | More expensive | 31% |
| Other | 6% | More order fulfillment errors | 28% |
| Don't know | 3% | No challenges | 6% |

*Top Challenge When Not EDI / XML*

**Figure 11.a Benefits of Using EDI/XML Technologies**

## Aspects of Order Processing Made Better by EDI/XML Technology
### (Rated 5-7 on a 7-point scale)

■ Sales Orders  ■ Purchase Orders

| Aspect | Sales Orders | Purchase Orders |
|---|---|---|
| Accuracy | 97% | 91% |
| Productivity (reduction in number of manual interventions) | 92% | 77% |
| Response time (cycle length and ship time) | 81% | 74% |
| Global connectivity and sales across country borders | 75% | 65% |
| Ability to track and trace goods | 67% | 74% |
| Accountability (minimizing the chance for theft) | 47% | 51% |

**Figure 11.b Benefits of Using EDI/XML Technologies**

## Typical Internal Cost per Order

### Sales Orders

- ■ EDI/XML - No Manual Intervention
- ■ EDI/XML - With Minimal Intervention

| | |
|---|---|
| Under $5 | 3% |
| $5 or more | 6% / 8% |
| Don't know amount | 31% / 31% |
| Don't track costs | 36% / 36% |
| Don't know if track costs | 25% / 25% |

### Purchase Orders

- ■ EDI/XML - No Manual Intervention
- ■ EDI/XML - With Minimal Intervention

| | |
|---|---|
| Under $5 | 7% / 5% |
| $5 or more | 2% |
| Don't know amount | 28% / 28% |
| Don't track costs | 47% / 47% |
| Don't know if track costs | 19% / 19% |

# Where Do We Go From Here?

Current satisfaction with EDI processes is high. They are both important and performing well. In figure 12, note that when respondents are asked to rate the importance and performance of EDI by document type as related to their supply chain processes, the gaps between importance and performance are low. Overall, companies are very happy with EDI technologies.

So why, if the gaps are low and the benefits are high, is the progress and evolution slow? In short, it is hard work. It is not glamorous. It requires work of the supply chain and IT teams collectively with sales and procurement to integrate B2B connectivity into trading partner policies. In most companies, sales incentives are not aligned to aggressively pursue the improvement of B2B connectivity. Similarly, in procurement, with so many conflicting priorities, it does not become a driving priority. We think that the time has come to make it a higher priority.

**Figure 12. Performance versus Importance of EDI/XML by Document Type in the Extended Supply Chain**

### EDI/XML Benefits to Supply Chain:
### Importance vs. Performance
(Rated 5-7 on 7-Point Scale)

■ Importance  ■ Performance  ☐ Gap (Perf-Impt)

| Document Type | Importance | Performance | Gap |
|---|---|---|---|
| Advance shipment notificats (ASN) | 85% | 80% | -5% |
| Purchase order acknowledgmts** | 84% | 76% | -8% |
| Customer order captures* | 79% | 84% | 5% |
| Purchase order changes** | 73% | 74% | 1% |
| Order status messages* | 70% | 69% | -1% |
| Electronic funds transfers | 67% | 71% | 3% |
| Electronic receipt settlements | 67% | 72% | 5% |
| Custom clearance notifications | 51% | 54% | 3% |

**High Importance Low Performance** (Advance shipment notificats (ASN) and Purchase order acknowledgmts**)

Source: Supply Chain Insights LLC, B2B Study (June-Sep 2013)
Base: Manufacturers, Retailers, Distributors, 3PLs and Other with EDI/XML– Total (excluding those rating Q32 'not applicable' (n=59-79)
Q31. How important is each of the following elements of EDI / XML technology in terms of improving supply chain performance? SCALE: 1=Not at all important, 7=Extremely important
Q32. How effective is each of the following elements of your EDI / XML technology at improving supply chain performance? SCALE: 1=Not at all effective, 7=Very effective
*Asked of only those familiar with Order-to-Cash (n=76);  ** Asked of only those familiar with Procure-to-Pay (n=75)

# Recommendations

Here we share five recommendations:

1) **Use Carrots, Not Sticks**. Include B2B connectivity into customer terms and policies giving those that share data and use the standards a break in pricing and delivery schedules. Similarly, track the sharing of ASNs and reward suppliers that have automated the process. Use incentives to drive adoption.

2) **Make It a Business Initiative, Not Just an IT Program.** B2B connectivity is about driving improvements in business results. Many companies fail by having it seen as an IT program. Lead the initiative through a line-of-business leader that has an understanding of the benefit proposition to the end-to-end supply chain.

3) **Drive Awareness of the Value with Trading Partners.** Make the concepts of B2B automation part of trading partner scorecards and top-to-top meetings.

4) **Build a Guiding Coalition. Work Cross-functionally.** Track costs and levels of automation to drive awareness. Build a guiding coalition, cross-functionally, to include EDI/XML automation into your processes.

5) **Educate Executive Teams on the Value Proposition**. Use the findings from this report to educate the organization. Drive a more holistic understanding of the processes and benefits for the greater organization.

# Summary

EDI/XML is the workhorse of the industry in building the extended supply chain. Despite the slow progression of adoption, the processes have a high level of importance and a high level of performance with significant benefits for both the order-to-cash and the procure-to-pay processes.
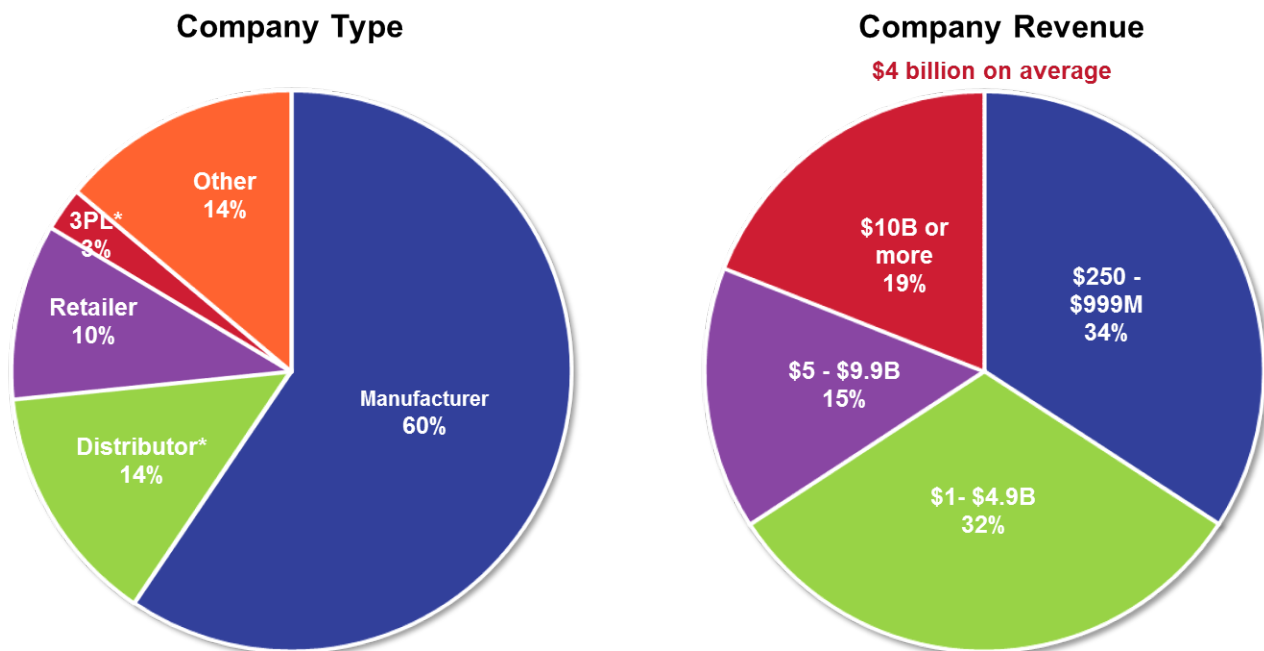
# Appendix

In this section, we share the demographic information of survey respondents and provide additional charts referenced in the report. The participants in this research answered the surveys of their own free will. A small portion of the respondents were given either a Starbucks gift card or a copy of Lora Cecere's book *Bricks Matter,* as an honorarium. In addition, the response was stimulated by an offer to share and discuss the survey results in the form of Open Content research at the end of the study.

The names, both of individual respondents and companies participating, are held in confidence. At no point do we share these. To better understand the responses, the demographics are shared to help the readers of this report gain a better perspective on the results. The demographics and additional charts are found below in figures A–J.

In general, this survey was completed by information technology specialists who use and are familiar with EDI/XML and are knowledgeable of business-to-business connectivity, at manufacturing companies with an average of $4 billion in annual revenue. While the survey was open to supply chain leaders worldwide, the response rate was higher from leaders in the United States. Each respondent was screened for familiarity on B2B connectivity. The group represents a mature group managing B2B at a manufacturing organization one decade after its inception.

**Figure A. Overview of Company Respondents**



## Company Type

- Manufacturer 60%
- Other 14%
- 3PL* 3%
- Retailer 10%
- Distributor* 14%

## Company Revenue
### $4 billion on average

- $250 - $999M 34%
- $1- $4.9B 32%
- $5 - $9.9B 15%
- $10B or more 19%

Source: Supply Chain Insights LLC, B2B Study (June-Sep 2013)
Base: Manufacturers, Retailers, Distributors, 3PLs and Other with EDI/XML – Total (n=79)
Q2. Which of the following best describes you or your company? Please select the one that fits best, even if the terminology isn't quite right.
Q4. What was your company's last fiscal year revenue? Your best estimate is fine.

**Figure B. Industry Definition of Respondents in This Survey**

### Industry Type



### Specific Industry

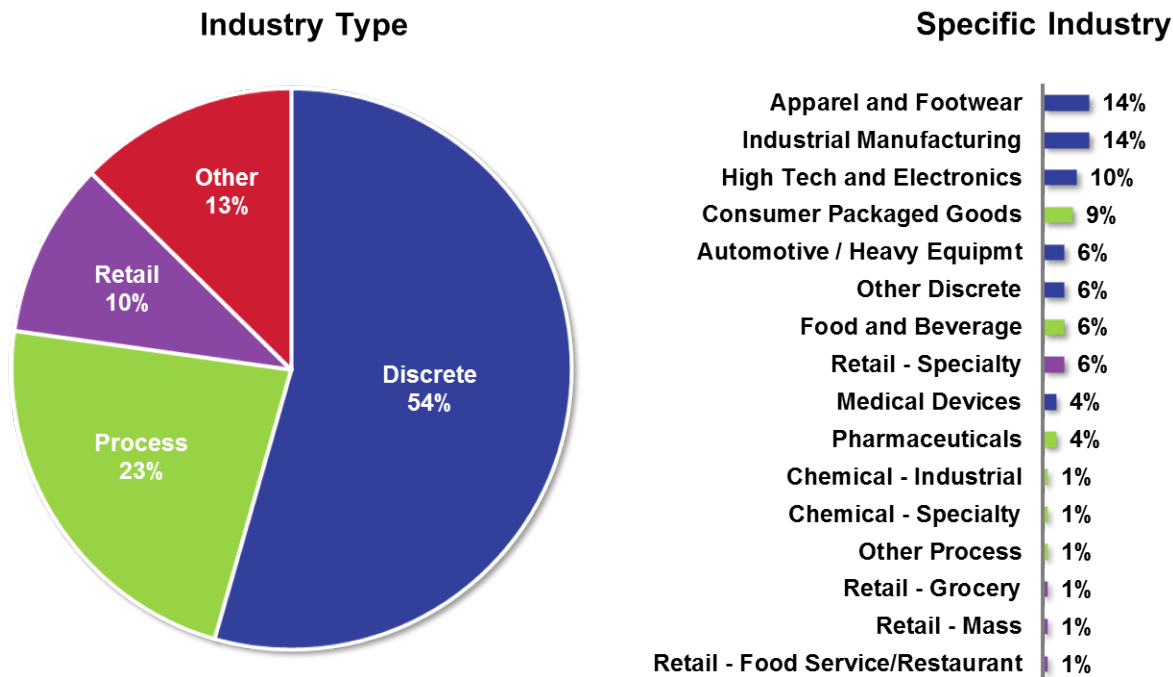| | |
|---|---|
| Apparel and Footwear | 14% |
| Industrial Manufacturing | 14% |
| High Tech and Electronics | 10% |
| Consumer Packaged Goods | 9% |
| Automotive / Heavy Equipmt | 6% |
| Other Discrete | 6% |
| Food and Beverage | 6% |
| Retail - Specialty | 6% |
| Medical Devices | 4% |
| Pharmaceuticals | 4% |
| Chemical - Industrial | 1% |
| Chemical - Specialty | 1% |
| Other Process | 1% |
| Retail - Grocery | 1% |
| Retail - Mass | 1% |
| Retail - Food Service/Restaurant | 1% |

Source: Supply Chain Insights LLC, B2B Study (June-Sep 2013)
Base: Manufacturers, Retailers, Distributors, 3PLs and Other with EDI/XML – Total (n=79)
Q3.Which industry grouping best defines your company?  Please select the one that best applies – even if the terminology isn't exactly right.

**Figure C. Overview of Company Respondents**

### Role



### Title

**66% Manager or Higher**

| | |
|---|---|
| VP / Sr. VP | 8% |
| Director / Sr. Dir | 13% |
| Manager / Sr. Mgr | 46% |
| Sole contributor | 5% |
| Internal advisor | 8% |
| Other | 22% |

### Region

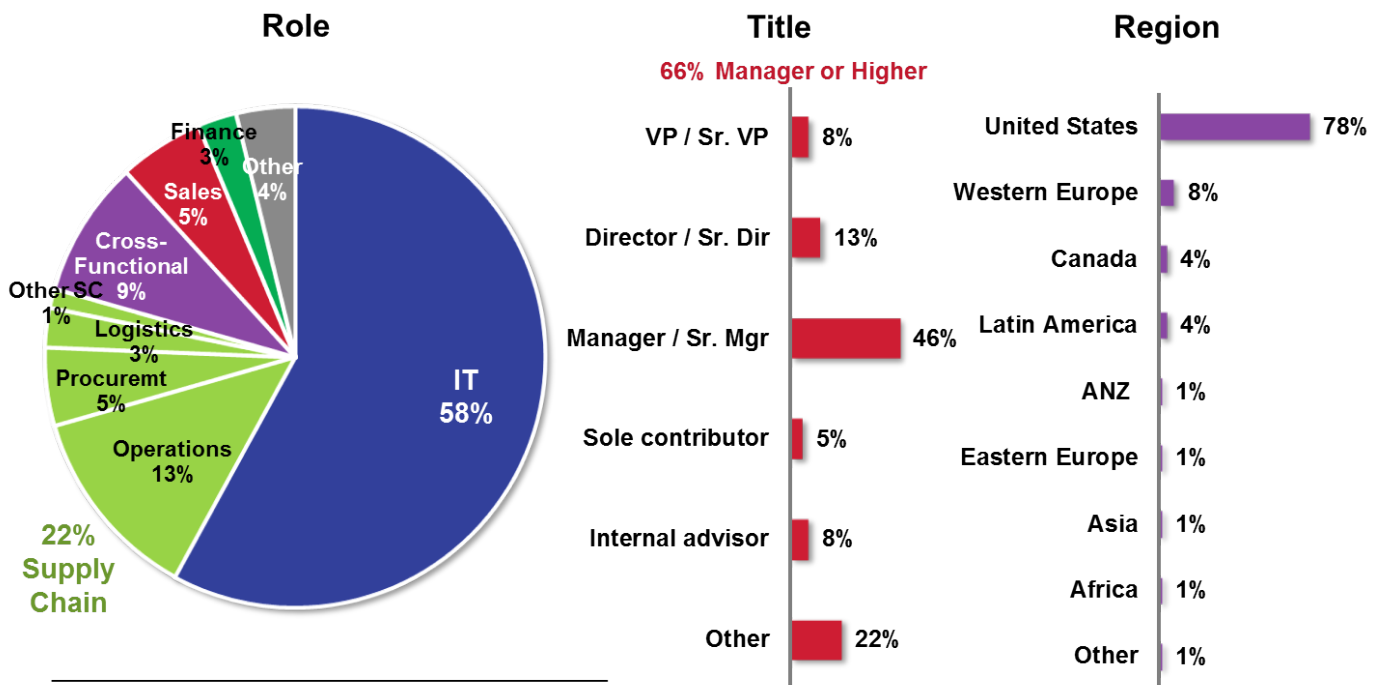| | |
|---|---|
| United States | 78% |
| Western Europe | 8% |
| Canada | 4% |
| Latin America | 4% |
| ANZ | 1% |
| Eastern Europe | 1% |
| Asia | 1% |
| Africa | 1% |
| Other | 1% |

Source: Supply Chain Insights LLC, B2B Study (June-Sep 2013)
Base: Manufacturers, Retailers, Distributors, 3PLs and Other with EDI/XML – Total (n=79)
Q5.Which of the following best describes your current role, even if the terminology isn't exactly right?
Q6.Which of the following best describes your supply chain role, even if the terminology isn't exactly right?
Q7.Please indicate which of the following best describes your current level or title, even if the terminology isn't exactly right.
Q47.In what region of the world are you personally based at this time?

**Figure D. Respondent Familiarity with B2B Solutions Using Electronic Data Interchange (EDI) Standards**

## Respondent Familiarity with EDI/XML by Process Type



**85% Familiar** — Order-to-Cash

- Not applicable: 3%
- Not familiar: 6%
- Neutral: 6%
- Familiar: 14%
- Extremely/very familiar: 71%

**82% Familiar** — Procure-to-Pay

- Not applicable: 3%
- Not familiar: 10%
- Neutral: 5%
- Familiar: 20%
- Extremely/very familiar: 62%

**Order-to-Cash**
*The business process for receiving and processing sales orders, sending invoices and receiving payment.*

**Procure-to-Pay**
*The business process for requisitioning, purchasing, receiving, and payment for goods and services.*

Source: Supply Chain Insights LLC, B2B Study (June-Sep 2013)
Base: Manufacturers, Retailers, Distributors, 3PLs and Other with EDI/XML – Total (n=79)
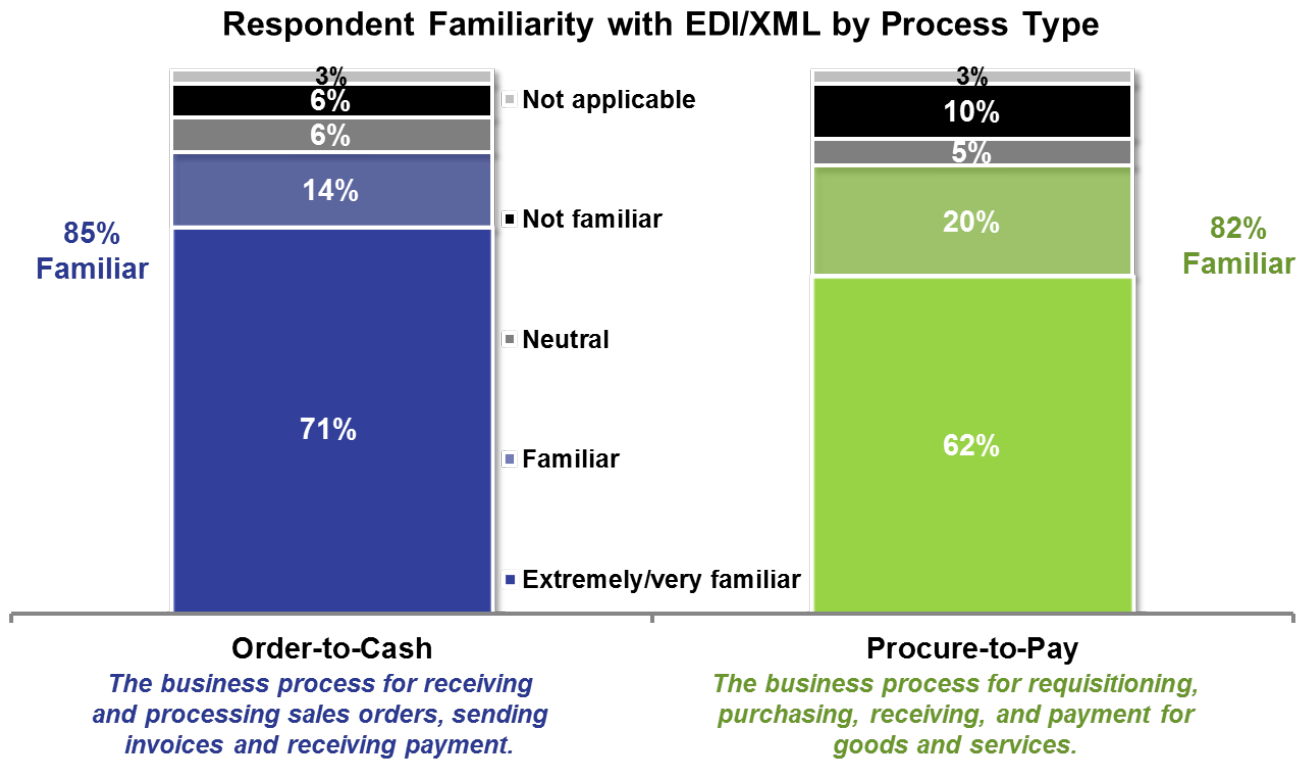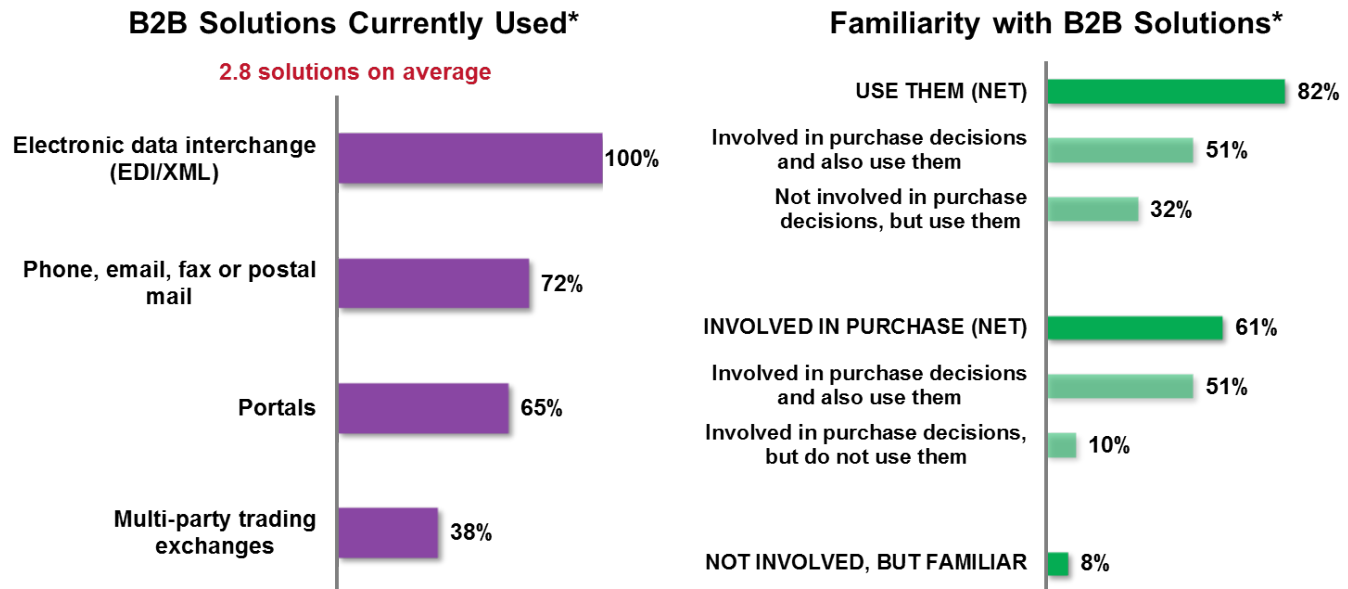Q10. How familiar are you with the use of electronic data interchange (EDI / XML) for each of the following in your company?
Note: Respondents had to be at least somewhat familiar with one of these processes to continue (3-7 on a 7-points scale)

**Figure E. Types of Solutions Used for B2B Connectivity**

## B2B Solutions Currently Used*

**2.8 solutions on average**



- Electronic data interchange (EDI/XML): 100%
- Phone, email, fax or postal mail: 72%
- Portals: 65%
- Multi-party trading exchanges: 38%

## Familiarity with B2B Solutions*



- USE THEM (NET): 82%
- Involved in purchase decisions and also use them: 51%
- Not involved in purchase decisions, but use them: 32%
- INVOLVED IN PURCHASE (NET): 61%
- Involved in purchase decisions and also use them: 51%
- Involved in purchase decisions, but do not use them: 10%
- NOT INVOLVED, BUT FAMILIAR: 8%

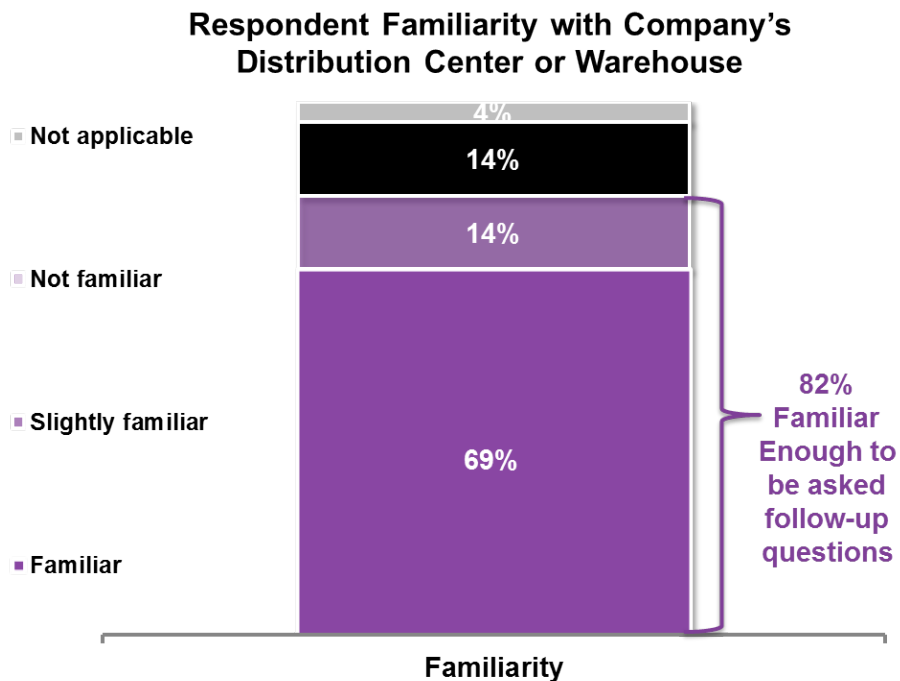Source: Supply Chain Insights LLC, B2B Study (June-Sep 2013)
Base: Manufacturers, Retailers, Distributors, 3PLs and Other with EDI/XML – Total (n=79)
Q8. Please think about B2B (business-to-business) solutions your company uses. Which of the following B2B solutions, if any, does your company currently use? Please select all that apply.
Q9. What is your personal involvement in these B2B solutions (electronic data interchange (EDI / XML), email/fax/portals, or multi-party trading exchanges)?
*NOTE: Respondents had to use EDI/XML and be at least familiar with the solutions to qualify for the study

**Figure F. Familiarity of the Respondent with the Company's Distribution Center**

## Respondent Familiarity with Company's Distribution Center or Warehouse



- ■ Not applicable
- ■ Not familiar
- ■ Slightly familiar
- ■ Familiar

4%

14%

14%

69%

82% Familiar Enough to be asked follow-up questions

**Familiarity**

Source: Supply Chain Insights LLC, B2B Study (June-Sep 2013)
Base: Manufacturers, Retailers, Distributors, 3PLs and Other with EDI/XML – Total (n=79)
Q35. How familiar are you with the practices within your company's distribution center or warehouse? SCALE: 1=Not at all familiar, 7=Extremely familiar
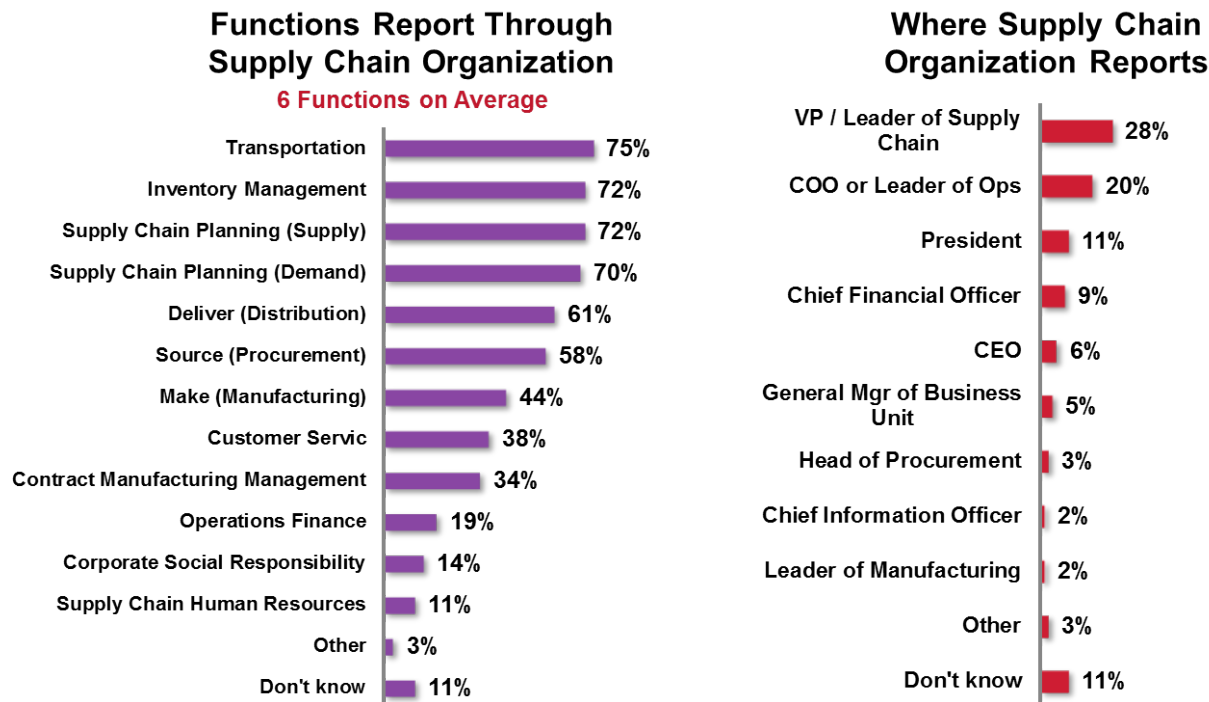
**Figure G. Presence of a Supply Chain Organization in the Respondent's Organization**

## Have a Formal Supply Chain Organization
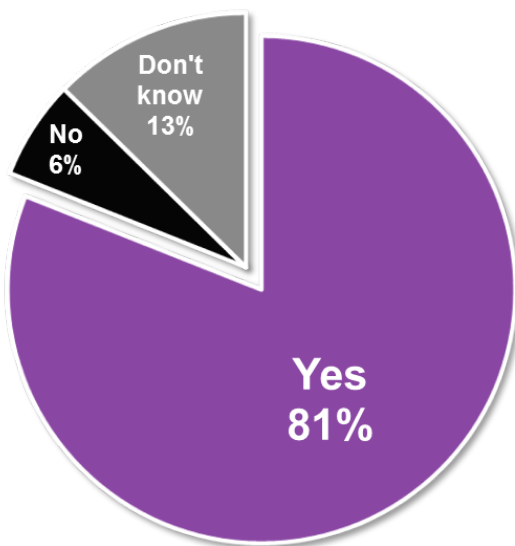


Don't know 13%

No 6%

Yes 81%

Source: Supply Chain Insights LLC, B2B Study (June-Sep 2013)
Base: Manufacturers, Retailers, Distributors, 3PLs and Other with EDI/XML -- Total (n=79)
Q43. Does your company have a formal supply chain organization?

## Figure H. Overview of the Supply Chain Organization of the Respondents

### Functions Report Through Supply Chain Organization
**6 Functions on Average**

| Function | % |
|---|---|
| Transportation | 75% |
| Inventory Management | 72% |
| Supply Chain Planning (Supply) | 72% |
| Supply Chain Planning (Demand) | 70% |
| Deliver (Distribution) | 61% |
| Source (Procurement) | 58% |
| Make (Manufacturing) | 44% |
| Customer Servic | 38% |
| Contract Manufacturing Management | 34% |
| Operations Finance | 19% |
| Corporate Social Responsibility | 14% |
| Supply Chain Human Resources | 11% |
| Other | 3% |
| Don't know | 11% |

### Where Supply Chain Organization Reports

| Role | % |
|---|---|
| VP / Leader of Supply Chain | 28% |
| COO or Leader of Ops | 20% |
| President | 11% |
| Chief Financial Officer | 9% |
| CEO | 6% |
| General Mgr of Business Unit | 5% |
| Head of Procurement | 3% |
| Chief Information Officer | 2% |
| Leader of Manufacturing | 2% |
| Other | 3% |
| Don't know | 11% |

Source: Supply Chain Insights LLC, B2B Study (June-Sep 2013)
Base: Manufacturers, Retailers, Distributors, 3PLs and Other with EDI/XML – Have supply chain organization (n=64)
Q44. Companies define their supply chain organizations in different ways. Please tell us how you define your company's supply chain by selecting which function(s) report through the supply chain organization. Please select all that apply.
Q45. To whom does your supply chain organization report?

## Figure I. Industry Pain by Respondent Role and Company Size

### Top 3 Elements of Business Pain in Supply Chain Management

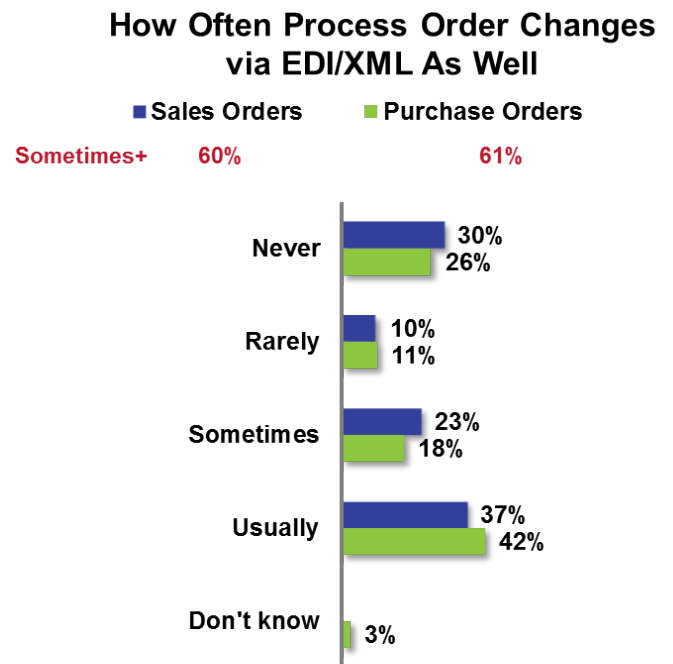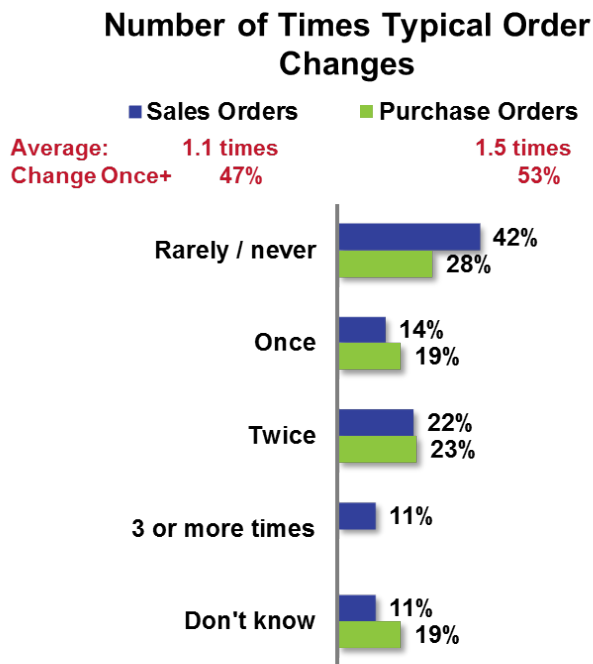| Top 3 | TOTAL | INDUSTRY | | REVENUE | | FUNCTIONAL ROLE | |
|---|---|---|---|---|---|---|---|
| | | Discrete | Non-Discrete | $1B+ | Under $1B | IT | Non-IT |
| Base: Total | 79 | 43 | 36 | 52 | 27 | 46 | 33 |
| Ability to use data | 41% | 35% | 47% | 35% | 52% | 37% | 45% |
| Management of value network relationships | 35% | 35% | 36% | 42% | 22% | 28% | 45% |
| Talent issues | 33% | 37% | 28% | 42% | 15% | 30% | 36% |
| Demand and supply volatility | 33% | 33% | 33% | 37% | 26% | 26% | 42% |
| Software usability | 25% | 19% | 33% | 15% | 44% | 33% | 15% |
| Clarity of supply chain strategy | 23% | 23% | 22% | 10% | 48% | 24% | 21% |
| Increasing speed of business | 22% | 16% | 28% | 25% | 15% | 20% | 24% |
| Organizational alignment | 20% | 21% | 19% | 17% | 26% | 20% | 21% |
| Increasing regulations and compliance | 16% | 21% | 11% | 15% | 19% | 22% | 9% |

Source: Supply Chain Insights LLC, B2B Study (June-Sep 2013)
Base: Manufacturers, Retailers, Distributors, 3PLs and Other with EDI/XML -- Total (n=79
Q42. When it comes to supply chain management, which of the following are the top 3 elements of business pain for you personally? Please select no more than three.
⊙ Higher than the other group at a 90% level of confidence

**Figure J. Frequency of Order Changes**

## Number of Times Typical Order Changes

■ Sales Orders  ■ Purchase Orders

Average: 1.1 times 1.5 times
Change Once+ 47% 53%

| | Sales Orders | Purchase Orders |
|---|---|---|
| Rarely / never | 42% | 28% |
| Once | 14% | 19% |
| Twice | 22% | 23% |
| 3 or more times | 11% | |
| Don't know | 11% | 19% |

## How Often Process Order Changes via EDI/XML As Well

■ Sales Orders  ■ Purchase Orders

Sometimes+ 60% 61%

| | Sales Orders | Purchase Orders |
|---|---|---|
| Never | 30% | 26% |
| Rarely | 10% | 11% |
| Sometimes | 23% | 18% |
| Usually | 37% | 42% |
| Don't know | | 3% |

Source: Supply Chain Insights LLC, B2B Study (June-Sep 2013)
Base: Manufacturers, Retailers, Distributors, 3PLs and Other with EDI/XML – Sales Orders (n=36), Purchase Orders (n=43); Sales Orders with EDI.XML (n=30), Purchase Orders with EDI/XML (n=38)
Q16. How many times does a typical sales order change?
Q23. How many times does a typical purchase order change?
Q17. For sales orders placed originally via EDI / XML, does your company typically also process the sales order changes via EDI / XML?
Q24. For purchase orders placed originally via EDI / XML, does your company typically also process the purchase order changes via EDI / XML?

# Definitions Used in the Study

To ensure clarity in the survey, the respondents were provided with definitions of the options for B2B connectivity. These definitions are listed below.

## Definitions Provided to Respondents

- **B2B Solutions:**
  technologies designed to better connect your business-to-business trading partners, such as suppliers and customers.

- **Electronic Data Interchange (EDI / XML):**
  the computer-to-computer exchange of standard business documents in electronic format between two companies. EDI standards include ANSI X12 and EDIFACT as well as XML-based standards, such as RosettaNet.

- **Portals**
  a web-based interface that enables businesses to manually enter data to create business documents such as invoice and advance ship notices via electronic forms. The data entry is a manual process but the forms are integrated with back-end systems such as accounts payable or warehouse management systems, providing partial automation capabilities.

- **Phone, Email, Fax or Postal mail**
  approaches that require manual processes by both the sender and the receiver of the business documents.

- **Multi-party Trading Exchanges**
  specialized business networks and SaaS vendors that provide a platform for collaborating and information sharing between business partners (e.g., include Elemica, GHX, SupplyOn and E2open.)

## About Supply Chain Insights LLC

Founded in February, 2012 by Lora Cecere, Supply Chain Insights LLC is focused on delivering **independent, actionable and objective advice for supply chain leaders**. If you need to know which practices and technologies make the biggest difference to corporate performance, turn to us. We are a company dedicated to this research. We help you understand supply chain trends, evolving technologies and which metrics matter.

## About Lora Cecere

Lora Cecere (twitter ID @lcecere) is the Founder of Supply Chain Insights LLC and the author of popular enterprise software blog Supply Chain Shaman currently read by 5,000 supply chain professionals. Her book, *Bricks Matter*, (co-authored with Charlie Chase) published on December 26th, 2012. She is currently working on a second book, *Metrics That Matter*, to publish in September 2014.

With over nine years as a research analyst with **AMR Research, Altimeter Group, and Gartner Group** and now as a Founder of Supply Chain Insights, Lora understands supply chain. She has worked with over 600 companies on their supply chain strategy and speaks at over 50 conferences a year on the evolution of supply chain processes and technologies. Her research is designed for the early adopter seeking first mover advantage.