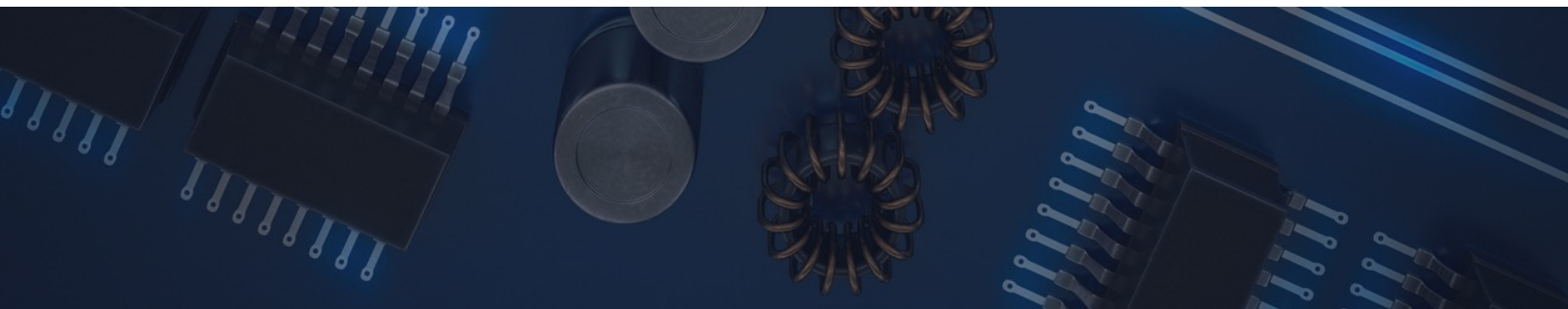eBook

The Future of e-Procurement:

How Automation is Transforming the Electronics Manufacturing Industry

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Throughout the last thirty years, there has been a systematic shift in the way electronics manufacturing professionals perform processes across the supply chain and beyond. The most significant shake-up came from the advent of the Internet, which brought about numerous changes, including the way we exchange goods and services.

Over the next ten years, electronics manufacturing professionals can expect to see the industry and their common practices evolve even more rapidly as e-procurement technology grows and becomes more globally accessible. Key industry players must adapt or risk being left behind.

What is e-procurement?

E-procurement is the B2B, B2C, or B2G purchase and sale of supplies, work, and services through the Internet and other information and networking systems, such as electronic data interchange (EDI) and enterprise resource planning (ERP).

Historically, procurement was completed through manual processes and validation, and heavily dependent on mail, phone, or fax orders. Many companies now use electronic solutions for business process management and administrative functions related to technology, services, and human resources.

As industry veterans witness everyday, electronics purchasing continues to evolve with new technologies. Recent developments include cloud-based technologies, improved user experience, and automation to streamline processes. The implementation of automation provides employees more time to dedicate to meaningful tasks. As the online transaction process accelerates, employees once tasked with never-ending administrative overhead and data-entry will ascend into higher-level strategy roles.

The next ten years in electronics manufacturing will take efficiencies and cost reduction even further, with the future of e-procurement entirely automated.

E-Procurement *within the Electronics Manufacturing Industry*

E-procurement permeates many industries but is essential to the primary function, process, and communications central to the electronics industry.

Up until a few years ago, procurement for electronics manufacturing and distribution was predominantly facilitated through electronic data interchange (EDI), the computer-to-computer exchange of business documents in a standard electronic format between business partners. Although EDI is still widely adopted and in use by EMS professionals today, there are now automation alternatives at a fraction of the cost.

Despite the emergence and development of automated solutions, heavily manual processes and protocols are still in place across the supply chain.
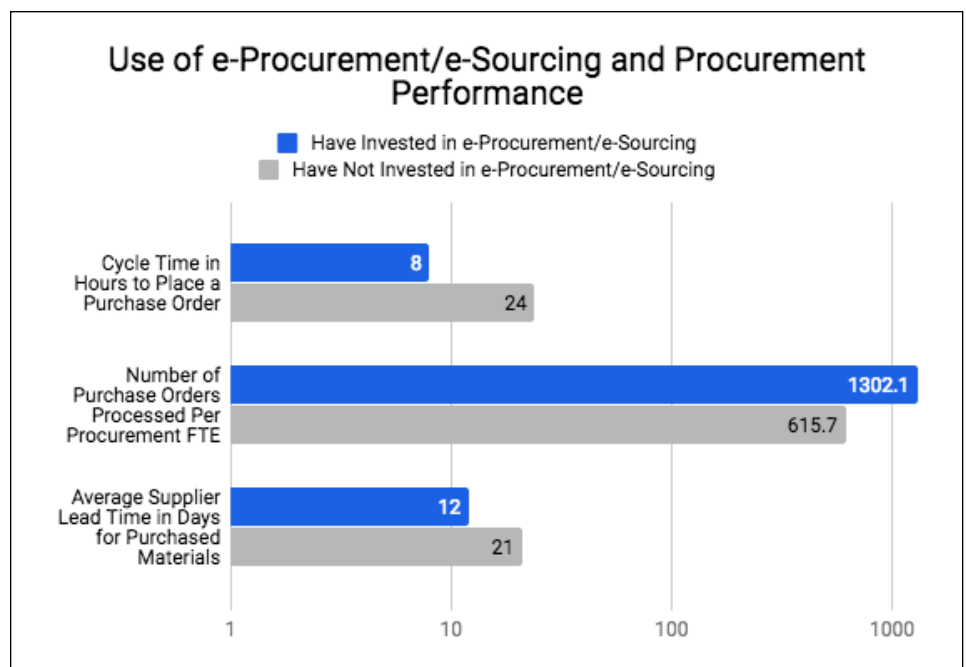
Common Complaints *within the Electronics Manufacturing Industry*

Electronics manufacturers, suppliers, and distributors face common challenges throughout the supply chain:
- Lagging speed to market
- Time and money lost on manual processes
- Complex inventory management
- Inefficient intake, validation, and processing of hundreds of thousands of complex component part orders
- Significant costs to maintain unreliable procurement platforms
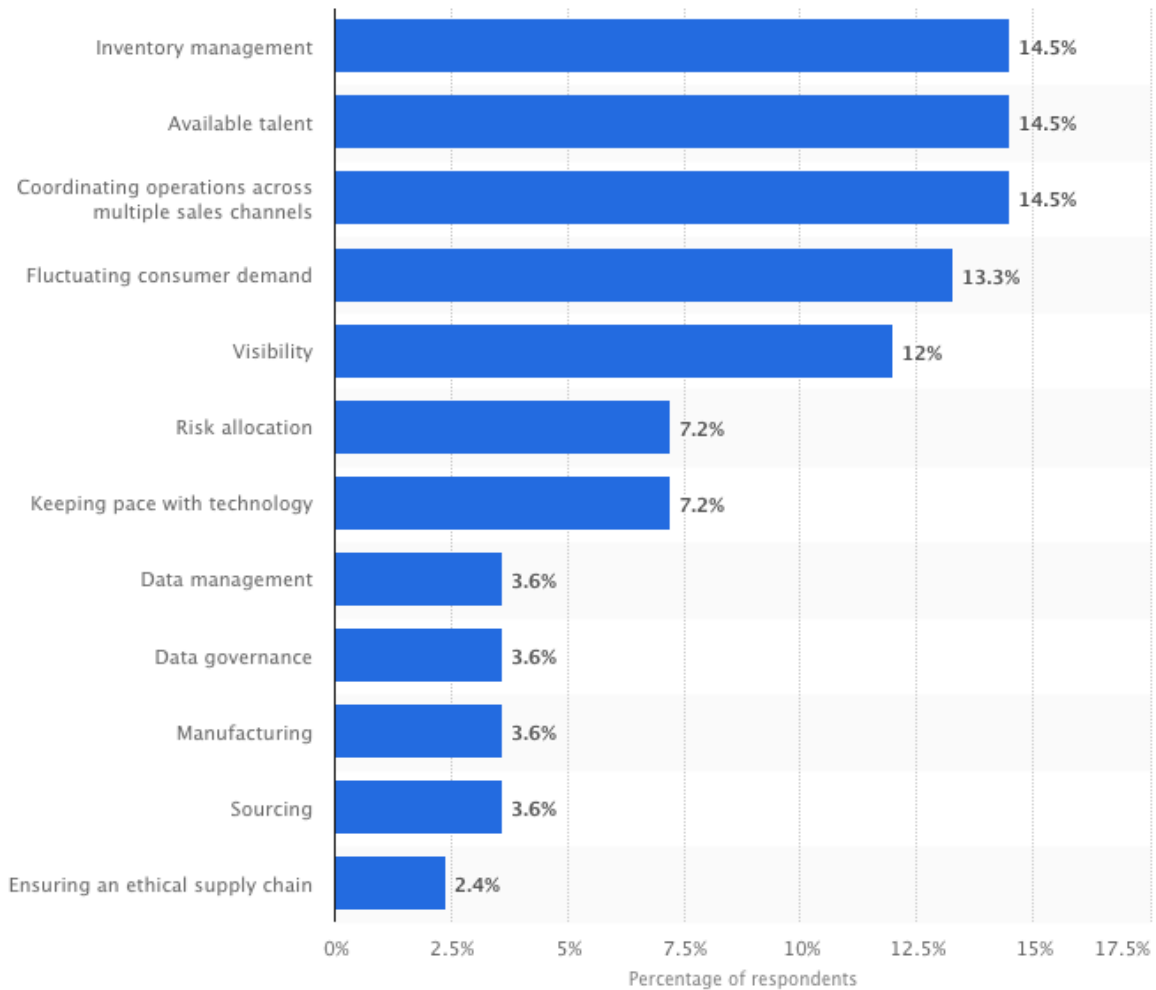- Difficulty providing exemplary customer procurement experience and service

When asked in a recent survey about the most important market constraints for electronics manufacturing, 32% of participants reported labor costs, and 24% reported the inability to develop a reliable logistics structure, to be a major constraint.[1]

Valuable time lost on manual processes such as managing parts and order data continues to be a common pain point across the electronics supply chain.

Use of e-Procurement/e-Sourcing and Procurement Performance

■ Have Invested in e-Procurement/e-Sourcing
■ Have Not Invested in e-Procurement/e-Sourcing

Metric	Invested	Not Invested
Cycle Time in Hours to Place a Purchase Order	8	24
Number of Purchase Orders Processed Per Procurement FTE	1302.1	615.7
Average Supplier Lead Time in Days for Purchased Materials	12	21

[1] https://www.statista.com/statistics/829663/market-constraints-supply-chain/

Another recent survey reported that 14.5% of participants noted inventory management as the biggest challenge they face in the supply chain.

Challenge	Percentage of respondents
Inventory management	14.5%
Available talent	14.5%
Coordinating operations across multiple sales channels	14.5%
Fluctuating consumer demand	13.3%
Visibility	12%
Risk allocation	7.2%
Keeping pace with technology	7.2%
Data management	3.6%
Data governance	3.6%
Manufacturing	3.6%
Sourcing	3.6%
Ensuring an ethical supply chain	2.4%

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While the above pain points and commonly faced problems across the electronics industry are rampant, technological advances and automation solutions exist that simplify and accelerate even the most challenging and time-consuming processes of the procurement cycle.

Until automated solutions have widespread adoption, manual processes will continue to hold back the progression of efficiency across the supply chain.

The Evolution of Procurement for the Electronics Industry

Technology has significantly improved the electronics manufacturing industry. *While integration and automation are transforming the way the electronics industry does business, the industry has been slow to catch up.* Although automation in electronics purchasing is in relative infancy, it is a solution that has endless possibilities that can streamline the majority of business processes.

Over the next ten years, improvements and breakthroughs will advance even more quickly as automation technology grows and evolves.

E-procurement is commonly facilitated through:

- Request for Proposals (RFPs)
- Request for Quotations (RFQs)
- Purchase Orders (POs)
- E-procurement Management Software

Benefits of E-Procurement Software	
Quick Transactions	• Make purchases in real time • Customers have direct access to inventory/pricing • The line between winning and losing business is most often getting relevant information to potential customers before competitors do
Cost Savings	• Accurate records prevent maverick spending • The time and resources saved through electronic communication
Improved Productivity	• Less time spent on menial, redundant tasks • Easy-to-use forms and templates
Transparent Transactions	• Recorded transactions make report writing and analysis easier
Electronic Records	• No more paper • Everything is logged and accessible online
Standardized Buying Process	• All purchases use the same form for standardized data collection
Reliable Data	• Fewer errors

While these processes were historically manual and required extensive time and effort to intake, sort, and validate orders of hundreds of thousands of parts, automated solutions have significantly streamlined this process.

When armed with accurate real-time data and access to predictive insights, electronics parts manufacturers can build, sell, or ship more at lower costs resulting in more savings for buyers, but also more revenue for themselves, a win-win for all involved.

E-Procurement on a Global Scale

E-procurement delivers an efficient solution to optimize transactions and the purchasing process as a whole. Once all countries have the same resources to communicate effectively with each other, the new transaction method will increase even more in popularity.

In the next five years, e-procurement will be widespread with two nations leading the charge to adopt new technologies and improve communication standards. Two emerging economies, Mexico and China, have taken steps to ensure that this vision comes to fruition. To catch up to their United States, APAC, and AMAE counterparts, Mexico has invested significant resources into its modern technologies in the electronics manufacturing industry.

China is also looking beyond its borders to focus on online infrastructure implementation and help African nations engage in discussions and transactions with its fellow countries around the globe. The efforts of both Mexico and China will increase globalization and are expected to vastly improve communication standards between nations.

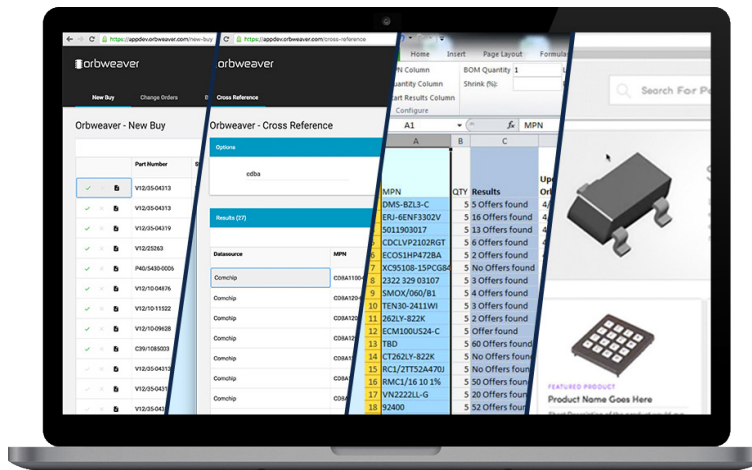# An End-to-End Integration and Automation Solution for E-Procurement

Orbweaver was developed from a gap our team witnessed within the electronic manufacturing industry. We were tired of seeing our colleagues facing the same problems throughout the procurement cycle: inefficient processes, wasted time, revenue lost, and key business opportunities left on the table. That's why we developed the Orbweaver Platform.

Orbweaver simplifies the electronics procurement cycle by integrating our partners directly with their suppliers and customers, and by eliminating common data management challenges such as RFQ intake, Pricebook management, PO issuance, all while saving money and increasing speed to market.

The Orbweaver Platform is an end-to-end comprehensive cloud-based e-procurement solution, built for the electronics industry.

The Orbweaver Platform Provides:

- Increased Efficiency and Speed to Market
- Seamless Integration

- Direct and Secure Data Transfer
- Real-Time Data Insights and Analytics

Previously, management and distribution of manufactured parts, subparts, assemblies, and subassemblies was a tedious task.

Key players along the supply chain are looking for efficient solutions that lower costs. This contemporary transaction solution delivers both through an entirely automated approach.

Ultimately, the purchase cycle is less cost-dependent than manufacturers and distributors might even realize. Increasingly, the real driver for winning big business is simply getting information to the potential customer first, which the Orbweaver platform helps facilitate.

With Orbweaver, simplify the most painful parts of electronic component purchasing. Streamline and automate your procurement systems for optimized, real-time purchase-order management and distribution.

Orbweaver's cloud-based e-procurement technology offers ease of use, universal access, instantaneous transactions, lower cost, easier integration, and improved analysis opportunities. With Orbweaver, the ability to produce an electronic bill of materials, deliver automated quotes, or process a PO instantaneously is at your fingertips.

Improved processes result in lower cycle times, more purchase orders processed, and less lead time for purchased materials. Manufacturers, suppliers, and distributors can exchange relevant part and pricing information and specific needs in real time, accelerating production and delivery times.

Our partners see a dramatic increase in efficiency, reduction in costs, and improvement in customer service across their entire supply chain.

> **"**
>
> *After considering several other companies, we were impressed with Orbweaver's comprehensive understanding of our industry. They immediately spoke our language and knew the complex nature of the part data we were managing manually.* ***They listened to our problems and provided solutions to automate key processes which ultimately had a direct impact on our business.*** *We look forward to continuing our partnership with Orbweaver to further advance our customer-facing technology.*
>
> Director of Business Development, Venkel

To learn more about the Orbweaver Platform and how you can automate fundamental parts of the electronics procurement cycle, visit our website at www.orbweaver.com and connect with us to schedule a free consultation with an Orbweaver electronics industry expert today.

Learn More

Learn more about how you can revolutionize your company's e-procurement process.

Request a Free Consultation

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