

Sustainability and B2B Outsourcing

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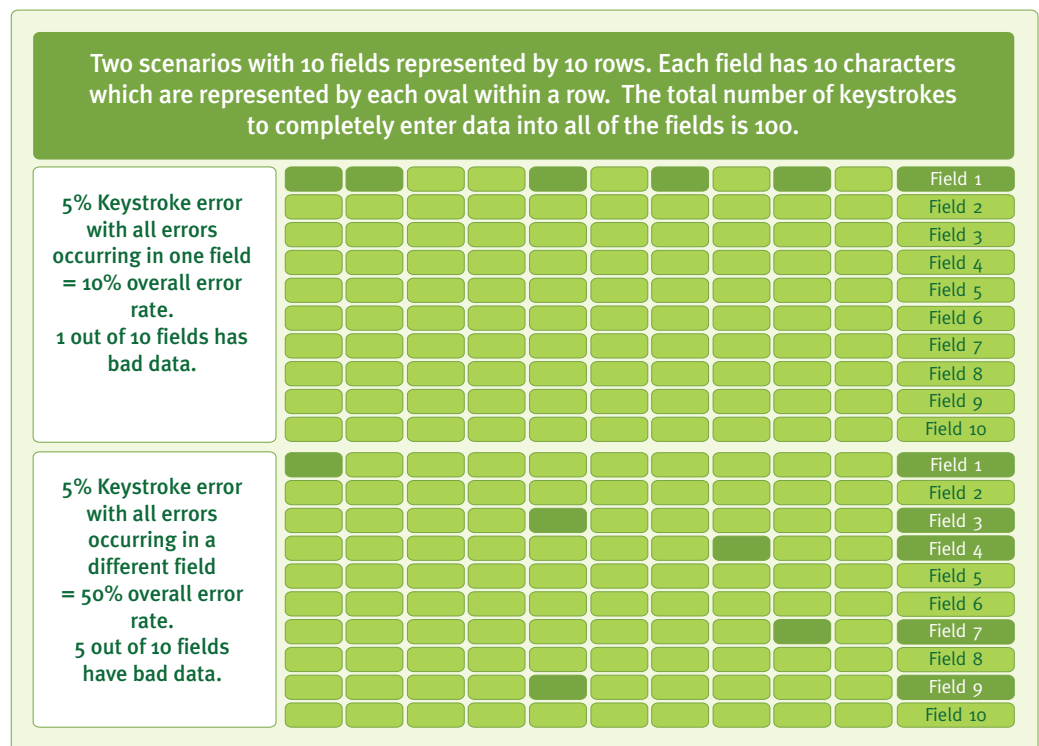
Doing well by your stakeholders while doing well by the environment and future generations

It's not often when the choice is this simple. Pursuing a reduced supply chain carbon footprint through outsourcing B2B actually helps improve your bottom line. Three primary drivers—error reduction, transportation improvements and IT optimization come together in a mature B2B program to both reduce costs and provide significant environmental benefits.

Automating Sustainability—Business Benefits

If you are like most businesses, the majority of the orders you send and receive are exchanged manually. For instance, AMR Research estimates only 20% of all orders in the retail supply chain are fully automated. Another 20% are sent electronically, but need manual intervention on the supplier side. Similarly, almost every other industry has limited automation when it comes to their supply chains. And this applies to both direct and indirect purchases. Both goods used to produce products and those used to sustain operations (pens, paper, staples, etc.) are ordered manually. Often, those orders are changed after the initial order is placed and almost always those change orders are handled manually, reducing the effectiveness of automation endeavors. The more documents you automate, and the more trading partners you automate with, the greater the maturity of your B2B program. But orders are just the tip of the iceberg. Ship notices, invoices and other business documents are too often manually managed transactions.

Calculating the Impact of Keystroke Errors



Why is automating your B2B transactions important? The average data entry error rate ranges from 2% - 5% depending on the skill of the entry staff and capabilities of the software being used. What this means is: if you enter 10 items that are 10 characters long, equating to 100 keystrokes, you will have between a 10% and 50% error rate. This is because the keystroke errors can all occur in the entry of one item or be spread across up to five of them.

Even a low keystroke error rate (2%) can equate to a massive overall effective error rate of 20% when using 10-character fields. If the fields are longer, the effective error rate will be even higher. In the US, these errors are significant contributors to the compliance penalties paid by retail suppliers, penalties that average nearly 2% of gross sales.

Keystroke entry, and other manual efforts such as receiving, pick/pack/ship, and comparing receipts to invoices, lead to costly problems. Depending on your industry, you may face:

- Compliance penalties costing 2% or more of gross sales
- Out-of-stock rates of between 8% and 15%
- Expedited shipping to avoid stock outs
- Shipping loads that are not optimized
- Unnecessarily high inventory levels
- Slow settlement when paper invoices are sent via mail (increased Days Sales Outstanding)
- Inability to take advantage of early pay discounts

These manual efforts are also associated with the release of harmful CO2 from:

- The use of air freight instead of more optimal shipping methods
- Routes that are not optimized
- Paper production necessary for various manual internal processes
- Fuel and other impacts associated with mailing paper (invoices, for instance)
- Fuel and other impacts associated with shipping paper from factory to original point of use

Automating your supply chain transactions can reduce carbon waste while also reducing the business costs associated with manual transactions. For example, transportation costs are significant for companies—up to 20% of annual revenue for some—and the opportunity to optimize those costs is an opportunity to put money straight to the bottom line. Imagine decreasing transportation costs by 1% of annual revenue. That's an increase in the bottom line of 1%; and if you have 20% margins, that's increasing your margins by 5%.

EXAMPLE:

It costs one automaker \$11,000/minute when their assembly line is shut down. These costs are passed on to the supplier whose shortage caused the shut down. Suppliers that are not co-located with the manufacturer must expedite parts—often via air—to avoid the penalties.

Here is a matrix of the business and environmental benefits of automating documents and processes.

Business Impact	Digitized Documents								Digitized Processes			
	Improved Electronic Forecasting	Point of Sale Data Sharing	Electronic Orders	Electronic Order Changes	Electronic Acknowledges	Electronic Invoices	Advance Ship Notices	Carrier Status	Order Lifecycle Visibility	Logistics Visibility	invoicing with Match	Inventory Visibility
Reduce Safety Stock	Leaf	Leaf							Leaf	Leaf		Leaf
Reduce Expediting	Leaf	Leaf							Leaf	Leaf		Leaf
Reduce Paper Usage	Leaf		Leaf	Leaf		Leaf	Leaf		Leaf		Leaf	
Reduce Overages in Shipment		Leaf	Leaf	Leaf						Leaf		Leaf
Optimize Transportation		Leaf					Leaf	Leaf		Leaf		
Reduce Overall Errors	Leaf	Leaf	Leaf	Leaf	Leaf	Leaf	Leaf	Leaf	Leaf	Leaf	Leaf	
Reduce Manual Efforts	Leaf	Leaf	Leaf	Leaf	Leaf	Leaf	Leaf	Leaf	Leaf	Leaf	Leaf	
Improve order-to-settlement			Leaf	Leaf		Leaf					Leaf	

Direct Green Impact Tangential Green Impact

Quantifying the Environmental Benefits

The question on everyone’s mind at this point is: how can we quantify the environmental benefits of a mature B2B program? The answer is that some aspects are relatively easy to address while others are a bit more challenging. For example, paper reduction is a pretty well-known and documented benefit process today. The Environmental Defense Fund has a wonderful “Paper Calculator” they developed in partnership with the timber industry. This calculator helps companies determine the direct environmental benefits of using more recycled paper—or eliminating paper usage altogether for some processes. GXS has analyzed supply chain transactions and determined the positive environmental impact its customers have had by choosing to automate documents instead of using paper for their supply chain transactions. We have also determined the positive ramifications if all supply chain transactions were automated. These benefits can be seen in the chart:

Based on our analysis of transactions, kilo-character counts and paper equivalents, the potential savings generated by companies currently using GXS Trading Grid is equivalent to:	If each of the estimated 40 billion B2B transactions undertaken worldwide each year were automated, the environmental impact would be equivalent to saving:
68 million pounds of CO ₂ , the equivalent of taking 6,224 cars off the road for a year or reducing gasoline consumption by 11.5 million gallons each year	680 million pounds of CO ₂ , the equivalent of taking 62,240 cars off the road for a year or reducing gasoline consumption by 115 million gallons or 2.4 million barrels of oil
40 thousand tons of wood, saving the equivalent of 279,674 trees	400 thousand tons of wood, the equivalent of 2.79 million trees
460,770 million BTUs of total energy consumption, the equivalent of that consumed by 5,063 homes per year	4.6 billion BTUs of total energy consumption, the equivalent of about 50,630 homes per year
228 million gallons of water, the equivalent of filling 346 swimming pools	2.28 billion gallons of wastewater, the equivalent of about 3,460 swimming pools

Paper is just one aspect of the cost of doing business. Improvements in transportation optimization, stemming from improved B2B processes, can result in significant decreases in fuel consumption. Transportation improvement calculations are unfortunately unique for each company based on factors such as miles traveled, equipment used, freight and weight, etc. One way to determine environmental impacts of transportation is for a company to measure their annual road miles before starting an environmental initiative and then measure the results afterwards. Any road miles saved can be turned into equivalent CO₂ savings if they know the estimated CO₂ per road mile for their trucks. Even if you can't measure the environmental benefits, the good news is that optimizing your transportation will result in less fuel used, reduced use of air freight for expediting, less wear on vehicles and tires, and other positive benefits—regardless of your current transportation expenditures. All of these improve your bottom line and the environment's bottom line as well.

Optimizing Technology

Finally, you may not think of your B2B infrastructure as part of your supply chain, but it certainly is. All B2B transactions that drive your supply chain must go through this infrastructure and many companies still run their B2B on costly mainframes. If these are older machines, the carbon footprint is especially significant. Even when running in a client server environment, B2B infrastructures are often highly inefficient and these B2B systems are usually not the first place companies look when pursuing IT infrastructure changes. Yet, improving the B2B infrastructure can yield significant energy savings while improving overall productivity and bringing even greater benefits to a mature B2B program. Use of blade servers and other optimizations can reduce energy usage nearly 75%.

Unbeliever?

If you are still not sure, consider this.

Research shows that using B2B technology can have significant effects on both your top and bottom lines. Mature B2B programs can increase revenue and improve perfect order performance. They can also reduce costs, increase turns, and help optimize overall supply chain performance. TMS and WMS applications do better when they are fed timely and accurate information from mature B2B systems. Research has also shown that the more mature the program, the greater the benefits. Stanford Global Supply Chain Management Forum showed that outsourcing B2B greatly increases the maturity of the program (between two and four times the number of trading partners integrated electronically when compared with in-house B2B programs).

Outsourcing your B2B will speed the financial benefits of supply chain automation and decrease your carbon footprint all at the same time. The reason is that the mature B2B infrastructure is already in place and just needs to be tapped. This means your company doesn't need

BRITVIC CASE STUDY:

Britvic, a European beverage supplier, saves 500,000 road miles annually. They achieved this through an optimized logistics program and strategic logistics partnerships. In Britvic's case, their half million road miles equates to more than 650 tonnes (716 tons) of CO₂. (Half million road miles = 716 tons = .001432 tons/mile or about 700 miles/ton.)

Source: IGD Supply Chain Analysis, Dec 10, 2008

GXS CASE STUDY:

Along with pursuing other internally-facing green initiatives, GXS has moved from older technology to blade servers in our data centers. These technology advances allowed GXS to consolidate from three to two global data centers and also reduce our overall data footprint. Best case scenarios show a decrease of 73% in energy usage and worst case scenarios show a 60% decrease.

When businesses outsource to GXS, they gain both the operational and environmental benefits of this highly optimized mature B2B environment.

to worry about staffing and supporting a global B2B infrastructure and all the challenges that entails.

- Foreign language support in both systems and staff? **Check.**
- Availability worldwide? **Check.**
- Integration with global shippers? **Check.**
- People on the ground in China and elsewhere around the globe? **Check.**
- Community management team ready to onboard trading partners? **Check.**
- High availability with multi-continent fail-over? **Check.**

What more could you want? The choice IS simple.

About GXS

GXS is a leading global provider of B2B e-commerce solutions that simplify and enhance business process integration and collaboration among trading partners. Organizations worldwide, including more than 70 percent of the Fortune 500, leverage the on-demand services on GXS Trading Grid® to extend supply chain networks, optimize product launches, automate warehouse receiving, manage electronic payments and gain supply chain visibility. GXS Managed Services, GXS' B2B outsourcing solution, empowers customers with the expertise, technical infrastructure and program support to conduct B2B e-commerce with trading partners globally.

Based in Gaithersburg, Md., GXS has an extensive global network and has local offices in the Americas, Europe and Asia-Pacific regions. GXS can be found on the Web at www.gxs.com.



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