E-commerce and logistics technology help small and midsize businesses compete like the big guys.

Like giant corporations, small and midsized businesses (SMBs) have to deliver outstanding products and services, stay ahead of the competition, and keep costs down. But in pursuing those goals, an SMB can't marshal the vast resources available to a General Motors or a Walmart. That's where e-commerce and information technology come in.

With the right IT, an SMB can compete in an increasingly e-commerce-centric world, gaining the speed, flexibility, and efficiency it needs to perform like a much larger organization.

The technologies behind e-commerce clearly make a tremendous difference: They let even a one-person venture reach customers around the world. Growing an e-commerce startup into the next Amazon, though, requires a sophisticated supply chain operation. No wonder so many IT systems focus on logistics.

Take freight transportation. "At many SMBs, the person handling shipping usually wears multiple hats and can be anyone from a warehouse or operations manager to a customer service lead, or even a receptionist," says Megan Orth, director of operations at Freightview, a cloud-based transportation management system (TMS) designed for SMBs. Freight management might start as a small part of that person’s job, but as business increases, shipping swallows more and more of the day.

"In order to remain competitive, SMBs need a cost-effective way to scale their shipping operations in line with their growth," Orth says. IT makes that possible.

"Transportation management systems will be the way of the future," says Jeff Corte, an owner of the San Antonio franchise of third-party logistics (3PL) company Unishippers. Most SMBs, he adds, are not using a TMS today.
For SMBs that outsource to 3PLs, interfaces that efficiently pass data between the two partners are extremely important. "We have some e-commerce clients whose inventory volume is not necessarily heavy, but timing is critical," notes David Hastings, vice president of IT professional services at OHL, a 3PL based in Brentwood, Tenn. Tight data integration keeps things moving.

With the arrival of cloud-based, pay-as-you-go IT services, small companies gain high-tech benefits without paying big licensing fees upfront. "We charge per document and per order, and we don't charge until the system goes live," says Jim Barnes, CEO of Enspire Commerce, a division of supply chain consulting and IT services firm enVista, based in Carmel, Ind.

Those are just a few examples. For a more in-depth understanding, let's see how a few small and midsize companies use e-commerce and logistics IT to level the playing field.

**BIOZYM**

**E: QUICK RATES, MORE FREIGHT**

Operating from the very center of the United States can provide a logistical advantage. But for BioZyme, its St. Joseph, Mo., location also poses a challenge. To provide top service to all customers, the small company must stretch. "We don't have a warehousing network across the United States," says Chris Feiden, BioZyme's supply chain director. "Our challenge has always been moving products coast to coast, and being timely."

BioZyme produces nutritional supplements for livestock, and employs approximately 100 people. Although it sells mainly to distributors and dealers, it often ships product directly from its plant to its customers' customers. Traditionally, BioZyme has served markets in the central United States, but today it's a coast-to-coast business and is starting to serve Canada as well. Most shipments are less-than-truckload (LTL) freight.

BioZyme operates a public e-commerce site, but orders generally come through a custom-built e-commerce platform for established accounts. Registered users go to that site to place new orders and track existing ones. BioZyme's sales representatives also use the tool to conduct transactions on behalf of customers.

Dealers often place orders to serve farmers who need the product right away. "We need to get the supplement to end users as quickly as possible, so their animals get healthier sooner," Feiden says.

**SPEEDING UP THE PROCESS**

Taking a manual approach to carrier selection, BioZyme used to spend two or three days shopping for transportation for each load. "Customer service employees had to move from
website to website to collect cost and service time information," Feiden says. Once employees chose a carrier, they booked the load via email or phone.

Nothing about that approach moved quickly. "We were trying to process 30 orders every day, but that's hard to do when you have to gather information from six, seven, or eight websites," Feiden says.

Hoping to operate more efficiently, BioZyme implemented Freightview in July 2015.

Founded in 2013 and purchased by 3PL C.H. Robinson in 2015, Freightview was designed for SMBs that use multiple carriers or brokers, and ship five to 25 LTL shipments per day. It allows a company to quickly check an existing LTL carrier base to get quotes for an upcoming shipment.

Freightview uses application programming interface (API) technology to exchange data with each carrier the shipper uses. "We connect directly with an LTL carrier to immediately pull in the shipper's negotiated rate in an easy-to-use interface," says Orth. "Our technology team works with carriers to make sure rates are flowing and updated in real time."

**ONE AND DONE**

To get quotes, a user at BioZyme enters the consignee's city, state, and ZIP code. If the customer is already in the system, those details pop up automatically. Then the user enters shipment details—for example, three pallets totaling 7,750 pounds. Freightview returns a range of options for shipping the load with different carriers, using BioZyme's negotiated rates.

"Instantly receiving the shipment cost and service time allows us to make quicker and better decisions for our customers," Feiden says. "If a carrier offers multiple service levels, such as standard and expedited, the system presents both options."

Now it takes just one click to choose a carrier and book the load. "By turning a three-day effort into a few seconds, Freightview has greatly increased BioZyme's efficiency," Feiden says. "Instead of dedicating one person to booking freight, that work is now just a part of someone's day." A single employee books both LTL and truckload transportation.

This new efficiency helps BioZyme fill a growing number of orders without adding more staff. "In the past year, we grew by more than 20 percent," Feiden says.

Freightview also produces reports that support BioZyme's monthly performance reviews with carriers. The reports give carriers information they need to improve service and pricing and, in turn, build a stronger relationship with BioZyme. "The tool has enabled us to earn better discounts from our carriers, because I'm able to get better data into their hands," Feiden says.
Nutrisystem: Integration Is the Meal Ticket

When Nutrisystem launched its weight loss program in 1972, it was a face-to-face operation. A customer on one of its nutritional plans stepped into a retail center each week to talk with a counselor and pick up a set of meals.

Then the Internet changed everything. In 1999, Nutrisystem closed its approximately 3,000 brick-and-mortar retail centers and embraced e-commerce. That move brought some distinct cost advantages. "We no longer had 3,000 storefronts with the expenses of rent, utilities, and people," says Joe Boileau, vice president of fulfillment operations at Nutrisystem in Fort Washington, Pa.

E-commerce also helps Nutrisystem expand its reach beyond those customers who lived within a reasonable drive from a retail center. "At this point, we can get a package to any location within the United States," Boileau says.

Customers still get personal counseling, now via web chat or by phone. And thanks to technologies deployed by Nutrisystem and its logistics partner, OHL, the company has been able to expand its offerings while fulfilling orders quickly and efficiently.

With $403.1 million in revenues in 2014, Nutrisystem falls well within the definition of a midsize company. Most of its business today involves monthly parcel shipments to customers who subscribe to individualized meal plans.

One product line, Ready to Go (RTG), consists of all shelf-stable foods. OHL ships those for Nutrisystem out of DCs in Chambersburg, Pa., and Sparks, Nev. Nutrisystem also offers a frozen product line, which ships in foam coolers packed with dry ice from OHL facilities in Allentown, Pa., and Sparks. A single order might contain all RTG products or a combination of RTG and frozen.

In addition, Nutrisystem operates a retail channel, shipping five-day meal kits from OHL's Bethlehem, Pa., DC to chains such as Meijer and HEB, and to McLane, a distributor that supplies Walmart.

OHL supports both the direct-ship and retail operations with Synapse, its proprietary warehouse management system (WMS). The system is integrated with pick-to-light technology from Lightning Pick, based in Germantown, Wis., in the four direct-ship facilities.

This integration simplifies the picking process. "It allows us to pick directly into the shippable container, so there's no double-handling, and it's much more efficient," says Hastings.
Synapse receives orders from Nutrisystem’s order management system through periodic electronic data interchange (EDI) transmissions. When an order is shipped—currently via FedEx—Nutrisystem gets an EDI confirmation. "Our system is updated with the tracking number, and time and date stamp," says Boileau. "Then we close out that order and bill the customer."

ALL SYSTEMS IN SYNC
Each direct-to-customer shipment contains 120 to 140 items, drawn from Nutrisystem's 150 unique stockkeeping units (SKUs). Nutrisystem's order management system, OHL's Synapse, and the pick-to-light system all work together to get the complex orders out the door quickly and accurately, while giving customers flexible product options. "Reporting is in place on both the Synapse and the Nutrisystem side, with dashboards to give us visibility to all the orders that both systems have open at any point," says Boileau.

Retail orders, the bulk of which come from McLane, pass through a data portal provided by SPS Commerce of Minneapolis into Nutrisystem's SAP enterprise resource planning (ERP) system and then out to OHL. At the same time, Nutrisystem transmits those orders to C.H. Robinson, which consolidates Nutrisystem's LTL loads with freight from several other food companies to build full truckloads bound for McLane.

"C.H. Robinson and OHL then communicate to ensure that the truck goes out quickly," Boileau says. "Once the freight is shipped, we get confirmation from OHL and Synapse back to SAP to trigger the billing of those orders to McLane."

IMPLANT CONCIERGE: SHIPPING WITH SURGICAL PRECISION
Implant Concierge, a technology-based service for dentists, tripled its business in 2015, gaining customers across the United States and abroad. The 20-person startup could never have grown so fast without the service and technology partnership it formed with its 3PL, Unishippers. "They helped us build our business model," says Amber Green, business and financial manager at Implant Concierge.

Headquartered in San Antonio, Texas, Implant Concierge serves general dentists who want to perform implant surgery themselves, rather than refer patients to oral surgeons or other dental specialists. Based on CT scans and a physical impression of the mouth, provided by the dentist, Implant Concierge develops an individual treatment plan for the patient. It then uses CAD/CAM software and 3D printing technology to fabricate a patient-specific surgical guide.

That guide fits in the patient’s mouth during surgery, ensuring that the dentist will position the implants precisely and efficiently, using minimally invasive techniques. If needed,
Implant Concierge also rents the dentist a kit of instruments, color-coded to help the doctor quickly find the right tool for each step in the surgery.

**A WEBSITE WITH TEETH**

Implant Concierge uses its own website to conduct transactions with customers, including online meetings between each dentist and a 3D case coordinator. The service relies on both data uploads (CT scans, for example) and parcel shipments (physical impressions, surgical guides, and instrument kits).

Implant Concierge first turned to Unishippers because of the 3PL's considerable leverage with UPS. "We knew that joining with them would allow us to be part of a bigger network, which would give us access to a higher level of UPS service," Green says.

Unishippers spends more than $100 million annually with UPS. "We leverage that buying power across 50,000 clients to get national account-type pricing for small and midsize businesses," says Corte.

Parcel shippers obtain pricing and print shipping labels through the Unishippers website, which is linked, in turn, to UPS's technology. But thanks to Unishippers' PriceLink API tool, a company can also request and display its negotiated UPS rates on its own e-commerce site. Unishippers has integrated its shipping tools into the Implant Concierge site. The company's employees and its dentist-customers use that interface to prepare their shipments, print shipping labels, and track parcels.

That integration has made shipping easier, faster, and less error-prone, Green says. Unishippers also used its technology to develop a new process for Implant Concierge that produced even greater improvements.

In its early days, the company struggled with the fact that after surgery, many dentists were slow to return their rented instrument kits. "We penalized them $25 a day for not returning the kits," Green says. Dentists disliked those charges, and other dentists were forced to wait for kits they had ordered. "This was affecting our brand," she adds.

Green asked Unishippers to automate the return shipping process. Today, when Implant Concierge ships a surgical guide and instrument kit, the software prints not just a label for that shipment, but also a return label. In addition, it prints a notice saying that a UPS driver will pick up the return package the day after surgery, by 4 p.m. The software also makes that appointment with UPS.

The automated process relieves the dental practice of all shipping responsibilities. "They don't have to find shipping materials; they don't have to print labels; they don't have to call UPS, think about it, worry about it, or be charged for it," Green says.
By ensuring prompt returns, the new process helps Implant Concierge serve more customers without bulking up inventory. "It changed our inventory system, booking, and capacity for renting," Green says.

Now that Implant Concierge also serves customers in Canada, the U.K., Australia, and other countries, Unishippers’ software selects the most effective international shipping service for each destination. "Our technology helps them produce all their customs clearance paperwork," Corte says.

Automated shipping adds an extra layer of benefit to high-tech services that Implant Concierge offers to dentists. "The system is integrated and facilitated, which allows us to provide great service," Green says.

PERFORMANCE BICYCLE:
BIG WHEEL IN OMNI-CHANNEL LOGISTICS
Midsize retailer Performance Bicycle competes in a fast-paced market by taking a customer-centric, fully omni-channel approach.

Headquartered in Chapel Hill, N.C., the company sells bicycles, cycling gear, and clothing from 105 brick-and-mortar stores in 20 states. It operates two e-commerce sites, Performancebike.com and Nashbar.com. It allows website customers to pick up their orders in stores, and it ships e-commerce orders from 40 of those stores, as well as from a DC in Chapel Hill and a third-party warehouse in California. In some cases, vendors drop-ship product directly to customers.

It takes sophisticated technology to keep product moving efficiently through all those channels. The e-commerce sites run on the IBM WebSphere Commerce platform. "It's the same platform that many large retailers use," says Mike Starkey, senior vice president, information technology at Performance Bicycle. And Manhattan Associates’ distributed order management (DOM) system determines where to source items—from a DC, a store, or a vendor—to fill each order promptly and transport it cost-effectively.

"Getting product to the customer faster and reducing the freight on these orders keep us on par with or ahead of our competitors," Starkey says.

Until recently, though, Performance Bicycle had a gap in its logistics technology portfolio. Whenever a new vendor agreed to drop-ship products on request, it took an inefficient manual process to set up that relationship in Performance Bicycle's information systems.

Sales volume determines whether Performance Bicycle keeps a given item in stock or asks the supplier to ship it. "For example, a vendor will offer a jersey with the logo of every possible college or pro team," Starkey says. "We don't want to inventory every college in America for that jersey."
For each vendor in the drop-ship program, Performance Bicycle had to establish a separate data gateway to transmit a daily inventory update to the DOM. "We had to build a file, set up an FTP (file transfer protocol) site for that vendor, transmit the file, and go through all the validation and testing to onboard that vendor," Starkey says. The process took several days per vendor.

Approximately four years ago, Performance Bicycle implemented a managed services solution called Trading Partner Management from Enspire Commerce. Staff at Enspire now take charge of onboarding new vendors, and the company provides the technology to route orders to the right sources.

Data flows between Performance Bicycle and the vendor via EDI or, if the vendor isn't EDI-capable, via a web portal that Enspire provides. "If the vendor is EDI-capable, we manage all the messages, do all the translation from EDI to XML (Extensible Markup Language), and then back to Performance Bicycle's legacy application," Barnes says.

That service saves Performance Bicycle much time and effort. "Instead of developing point-to-point solutions to 50 vendors, we developed one connection to Enspire, and we let Enspire manage those gateways out to each vendor," Starkey says. "It used to take us weeks to onboard a vendor. Now we do it in days."

The new process also opens the door to more drop-ship relationships. "We strive to make it as easy as possible for our vendor partners, so they'll consider doing it with us," Starkey adds.

Enspire's consulting arm is currently helping Performance Bicycle re-engineer its ship-from-store strategy. That operation takes advantage of a solution from Atlanta, Ga.-based Aptos (formerly Epicor Retail Solutions). It uses Performance Bicycle's point-of-sale systems, integrated with the DOM, to alert store employees when e-commerce orders are ready to ship, or when pick-up-in-store orders are on the way in.

For the near future, Starkey and his team are evaluating ways to further streamline IT systems and make them more efficient. "We're working on some customer-facing improvements, and on simplifying some fairly complex systems operating under the covers," he says.

**LAND OF THE GIANTS**

Clearly, information technology saves time and money for SMBs, and helps them execute sophisticated logistics strategies to compete in the e-commerce arena. Not only does technology help to increase profits, but it also helps to fuel growth—perhaps even rocketing some of these companies past "small" and "midsize" and into the ranks of the giants.