Artificial Intelligence in Action for Small and Medium-Sized Enterprises

Partners

The <u>Diversity Institute</u> conducts and coordinates multi-disciplinary, multi-stakeholder research to address the needs of diverse Canadians, the changing nature of skills and competencies, and the policies, processes and tools that advance economic inclusion and success. Our action-oriented, evidence-based approach is advancing knowledge of the complex barriers faced by under-represented groups, leading practices to effect change, and producing concrete results. The Diversity Institute is a research lead for the Future Skills Centre.

The <u>Future Skills Centre</u> (FSC) is a forward-thinking centre for research and collaboration dedicated to driving innovation in skills development so that everyone in Canada can be prepared for the future of work. We partner with policymakers, researchers, practitioners, employers and labour, and post-secondary institutions to solve pressing labour market challenges and ensure that everyone can benefit from relevant lifelong learning opportunities. We are founded by a consortium whose members are Toronto Metropolitan University, Blueprint, and The Conference Board of Canada, and are funded by the <u>Government of Canada's Future Skills Program</u>.

Funder

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Context

Canada is recognized globally for its leadership in artificial intelligence (AI) research, but many of its small and medium-sized enterprises (SMEs) remain hesitant to adopt these technologies. Yet SMEs stand to gain the most, with generative AI alone projected to add up to $100 billion in annual value by 2030. Artificial intelligence is no longer just for big tech firms: From maple syrup producers in Quebec to logistics providers across the country, SMEs are already putting AI to work to streamline operations, cut costs, and innovate.

The impacts are tangible, and they flow directly from concrete applications of AI across the business. In operations, AI enhances quality control, guides equipment maintenance, and provides digital work instructions, which reduces rework, improves consistency, and create safer and more efficient production lines. In logistics and supply chains, forecasting tools and algorithmic inventory planning help SMEs anticipate demand, cut stockouts and excess inventory, and simplify coordination with suppliers, turning hours of manual work into automated insights. In HR and workforce management, predictive

scheduling and AI-supported training shorten onboarding, optimize staffing levels, and free managers from repetitive administrative tasks. In marketing and customer service, recommendation engines, chatbots, and personalization tools allow even the smallest teams to deliver faster responses, more relevant offers, and a smoother customer experience that builds trust and loyalty.

*SMEs stand to gain the most, with generative AI alone **projected to add up to $100 billion in annual value by 2030.** From maple syrup producers in Quebec to logistics providers across the country, SMEs are already putting AI to work to streamline operations, cut costs, and innovate.*

Figure 1

AI Across the Value Chain
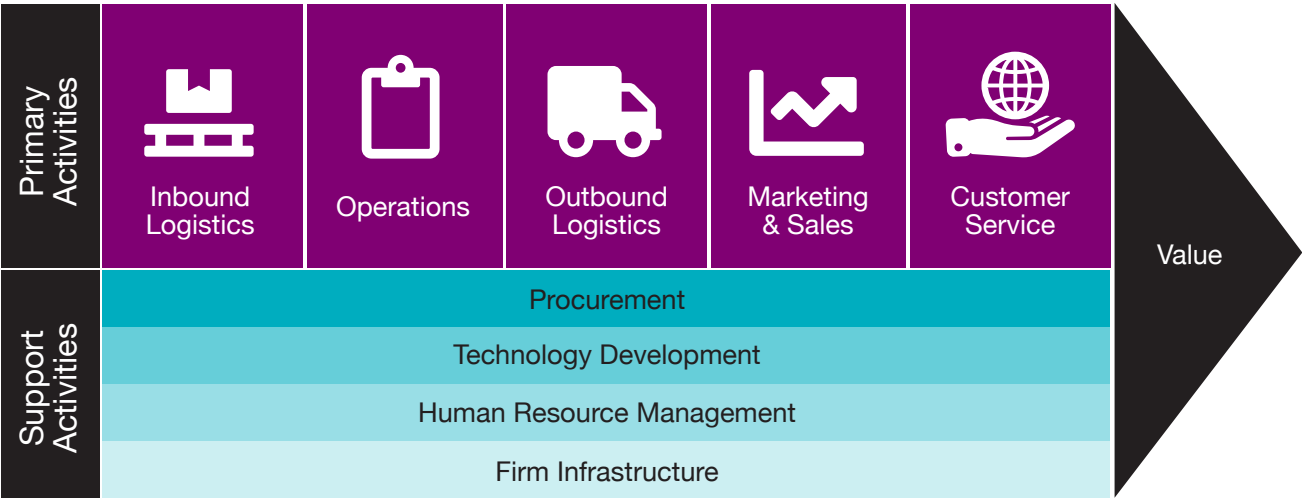
This bulletin highlights real-world success stories across the value chain, from logistics and operations to marketing, HR, and customer service. Together, they show that adoption is not only possible for SMEs, but already driving measurable gains in efficiency, productivity, service quality, and cost savings.

For a deeper look at barriers, skills, and adoption strategies, see the report: Bridging the AI Gap in SMEs in Canada.

Artificial Intelligence Across the Value Chain: Primary Activities

Inbound logistics: Smarter supply monitoring

AI is transforming how businesses manage the flow of inputs. From predictive demand planning to sensor-based monitoring, it helps SMEs reduce waste, cut holding costs, and better coordinate with suppliers. These case spotlights showcase challenges and solutions AI provides.

Inbound Logistics → Operations → Outbound Logistics → Marketing & Sales → Customer Service

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Maple Syrup Production[1]

Québec, Canada

A rural Quebec maple syrup producer turned to AI-enabled sensors to modernize a centuries-old process. Partnering with Cisco and IPConsul, the company installed 30 smart sensors across 4 square miles of sugar bush. These sensors tracked sap pressure and tank levels in real time, replacing the need for daily manual checks.

Why it matters:

> **Early problem detection**:
  Sensors flagged clogs before they disrupted production.

> **Less manual labour**:
  Automated monitoring saved time and reduced the need for workers to travel long distances.

> **Scalable growth**:
  Real-time visibility made it possible to expand operations without extra staffing.

This case shows how even traditional sectors like agriculture can benefit from AI-enabled inbound logistics. With real-time analytics and strong ecosystem partners, small producers can achieve efficiencies once reserved for large industrial firms.

SpecialKids: Adaptive apparel[2]
United Kingdom

SpecialKids, a retailer of adaptive clothing, had grown to hundreds of stock keeping units across multiple channels, with sales rising by more than 40 percent year over year. Running replenishment from spreadsheets and a basic enterprise resource planning system created errors, stockouts, and excess inventory. The company adopted Inventory Planner by Sage to generate demand forecasts that factor supplier lead times, seasonality, and promotions, then turn those forecasts into automated buying recommendations and purchase orders.

Why it matters:

> **Efficiency:**
Automating forecasting and purchasing now **saves more than 20 hours each month** that were previously spent on spreadsheets.

> **Productivity:**
Reliable forecasting **reduced stockouts by 77 percent**, keeping high-demand sizes and colours available.

> **Cost savings:**
Overstock was cut by about one-third, **freeing thoU.S.nds of pounds** to reinvest elsewhere in the business.

> **Service quality:**
Better availability on core lines (for example, popular age-range variants) means fewer missed orders and a smoother customer experience.

SpecialKids shows how moving from spreadsheets to algorithmic inventory planning can strengthen inbound logistics, cutting stockouts, trimming excess stock, and returning team time to higher-value work.

→ Once **inputs** are secured, the next challenge is **production**. Here, AI is driving efficiency on the shop floor, reducing waste, and improving quality.

Operations: Safer, more efficient production

Within core operations, AI automates repetitive tasks, improves quality control, and predicts equipment failures before they occur. This enables SMEs to boost efficiency, reduce downtime, and enhance workplace safety.

RoboFab (ONSITE3D)[3]
Pipe fabrication | Alberta, Canada

RoboFab, the fabrication division of ONSITE3D, adopted Novarc's Spool Welding Robot (SWR), a collaborative pipe-welding system that uses AI-driven computer vision and adaptive controls to guide the weld. The robot continuously monitors the weld pool and adjusts parameters in real time, delivering consistency and quality that rivals expert tradespeople. After validating results on its first installation, RoboFab purchased a second SWR to expand capacity.

Why it matters:

> **Efficiency:**
  Achieved a 20% reduction in production costs on stainless steel pipe.

> **Service quality:**
  Reduced failure and repair rates from the industry's 3–5% norm to under 1%, producing consistent x-ray-quality welds.

> **Productivity:**
  The SWR enabled RoboFab to weld an average of about 250 inches of pipe diameter per shift, with output sometimes reaching as high as 400 inches in a single day.

> **Workforce resilience:**
  The AI-enabled SWR eases reliance on scarce expert welders.

RoboFab shows how SMEs can integrate AI-driven robotics into core operations, cutting costs, increasing throughput, and reducing reliance on scarce skilled labour.

Pièces d'autos Fernand Bégin[4]
Auto recycling | Québec, Canada

Founded in 1978, Pièces d'autos Fernand Bégin has grown into one of Quebec's largest auto recycling companies, with more than 150 employees and multiple sites. The firm manages thoU.S.nds of incoming vehicles and parts, a complex process that demands accuracy, speed, and coordination. As operations expanded, traditional reporting systems and manual data entry created bottlenecks, slowing decision-making, raising costs, and leaving room for human error.

To tackle these challenges, the company partnered with Vooban, a Quebec-based leader in applied AI and digital transformation known for helping traditional industries modernize through data-driven solutions.

Vooban designed a digital analytics ecosystem that centralized data from across sites. Custom web apps and advanced BI dashboards turned raw operational inputs into real-time, actionable insights, making it easier for managers to track performance, identify problems early, and coordinate resources efficiently.

Why it matters:

> **Efficiency:**
  Centralizing data and automating reporting delivered a **20% improvement in overall process efficiency**, removing hand-offs and waiting time between sites.

> **Productivity (labour):**
  Workflow automation and role-specific dashboards **reduced labour costs by 15%** by freeing staff from low-value data entry and reconciliation.

> **Data quality (error reduction):**
  Replacing manual inputs with governed data capture **cut manual-entry errors by 90%,** improving order accuracy and downstream coordination.

By digitizing and automating information flows, Fernand Bégin not only cut waste and improved productivity but also laid the groundwork for a smarter, more sustainable recycling operation, showing how AI can strengthen both competitiveness and circular-economy goals.

Bien Chez Soi[5]
Home care service | Québec, Canada

Bien Chez Soi, a Quebec-based home care agency, faced rapid growth in client demand and increasing complexity in workforce scheduling. Coordinating hundreds of caregivers across diverse client needs led to frequent vacant visits, inefficient shift assignments, and administrative overload. To address these challenges, Bien Chez Soi adopted AlayaCare's AI-powered scheduling tool, the Visit Optimizer, to improve workforce management and service reliability.

Why it matters:

> **Efficiency:**
Bien Chez Soi cut vacant visits by **42%** and reduced scheduling time by **68%**, lowering weekly admin hours from **84 to 30**.

> **Productivity:**
The agency achieved a **10% increase in total visit volume** and a **25% increase in average caregiver hours per workday**, enabling it to serve more clients with the same workforce.

> **Service quality:**
Continuity of care improved by **6%** for clients with shorter service hours, ensuring more consistent caregiver assignments and stronger client relationships.

> **Cost savings:**
Automating shift assignment reduced administrative overhead, freeing staff resources for client-facing work instead of manual scheduling.

By integrating AI-driven scheduling into its core operations, Bien Chez Soi demonstrated how even a mid-sized service provider can capture significant benefits: lower administrative costs, more efficient workforce use, and stronger service outcomes for clients. For SMEs in other sectors, this shows that targeted AI adoption can unlock measurable improvements in productivity and customer experience without requiring large-scale transformation.

Patates Dolbec[67]
Potato production | Québec, Canada

Patates Dolbec, the largest potato producer in Eastern Canada, was struggling with a manual quality control process. The optical sorter achieved only about 70% efficiency, and defect detection reliability remained low. To address this, they partnered with Vooban to integrate an AI-powered sorting algorithm. This system was trained to detect multiple defects using data from cameras and sensors installed on the production line. It increased sorting efficiency to about 95%, significantly enhancing automation, precision, and workplace safety.

Why it matters:

> **Efficiency gain**:
Sorting **accuracy improved from about 70% to about 95%**, representing a substantial leap in defect detection performance.

> **Error reduction**:
  The overall sorting **error rate dropped from 20% to 5%**, meaning far fewer flawed or good potatoes were being misclassified.

> **Automation and safer jobs**:
  What once required manual visual inspection, with risks of repetitive strain and injury, is now largely automated, freeing workers for more rewarding tasks.

This example shows how agricultural SMEs can achieve major gains in accuracy, safety, and labor efficiency by deploying AI-enhanced inspection systems, turning routine sorting challenges into strategic automation advantages.
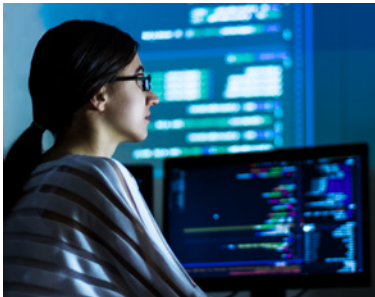
Rebecca Beach[8]
Digital-products microbusiness | Texas, U.S.

Rebecca Beach runs a solo digital-products business (printable workbooks, journals, e-books, and lightweight apps). To speed up production, she uses generative AI end-to-end: for creative content (draft text and visuals) and for build steps via "vibe coding," where she describes what she wants, and the AI generates working code she then tweaks. This lets her move from ideas to ready-to-sell files quickly while keeping the entire production workflow in-house across her Shopify store and Etsy.

Why it matters:

> **Speed:**
  Production cycles collapsed, from **weeks** to **under 20 minutes** for a printable workbook; **under 90 minutes** for a course or simple app.

> **Productivity:**
  AI-assisted creation enabled an **expanded catalog of 1,500+ items**, raising throughput without adding staff.

> **Revenue:**
  After adopting AI and vibe coding, she **doubled income to as much as US$20,000 per month**.

> **Demand fit:**
  She tests ideas with a **170,000-person email list** and niche groups before building, reducing wasted effort and improving launch hit-rate.

By folding AI into the core operations of product creation, content and code, this microbusiness turns ideas into sellable goods in minutes, scaling output and revenue while keeping production one-person.

Producing more efficiently is vital, but getting **products to market** is equally critical. **AI-enabled logistics tools** are helping SMEs optimize delivery routes, reduce fuel costs, and keep customers satisfied.

Outbound logistics: Faster, more accurate freight

AI optimizes the delivery of goods and services by streamlining documentation, coordinating shipments, and planning routes. SMEs can reduce delays and improve transparency, even with limited distribution infrastructure.

Inbound Logistics → Operations → **Outbound Logistics** → Marketing & Sales → Customer Service

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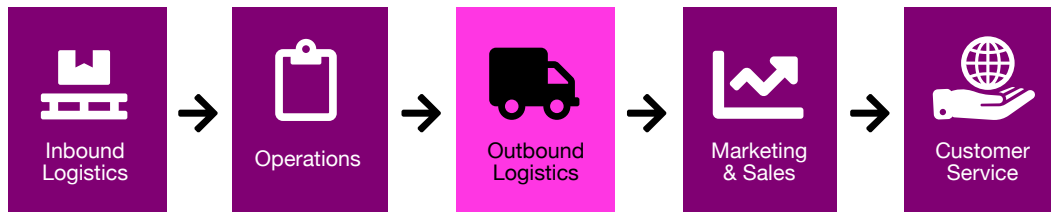
3 Men Movers[9]
Moving services | Texas, U.S.

In Houston, 3 Men Movers, a small business founded in 1985, turned to AI to tackle two critical challenges: rising insurance costs and accident rates. The company outfitted its fleet with AI-powered in-cab cameras to detect distracted driving and implemented smarter routing software to navigate away from high-traffic, high-crime, and risky zones, creating safer and more efficient service.

Why it matters:

> **Fewer accidents:**
  Accident rates dropped by 4.5% within just three months of using AI.

> **Reliable detection:**
  The distracted-driving system achieved 91% accuracy and stopped 80% of dangerous incidents.

> **Risk-aware routing:**
  AI guides drivers around bottlenecks, dangerous areas, and hazards, reducing liability and improving efficiency.

This example shows that even rural SMEs can harness AI to make everyday operations safer and smarter. By testing tools carefully, keeping staff informed, and balancing innovation with human oversight, 3 Men Movers turned small investments into measurable safety gains.

Metro Compactor Service[10,11]
Waste-equipment services | Brampton, Canada

As call volumes and equipment fleets grew, Metro Compactor Service embedded iSMART, a telemetry platform that connects compactors and balers to a cloud dashboard. Sensors stream fullness, cycle counts, and fault codes; technicians can diagnose and often resolve issues remotely and only roll a truck when it's truly needed. The system also helps time hauls at 90–100% capacity and supports predictive maintenance planning.

Why it matters:

> **Fewer unnecessary hauls:**
At **some sites**, iSMART has cut **hauling trips by up to 50%** by scheduling pickups closer to **90–100% full** and avoiding half-empty pulls.

> **Less onsite work, more uptime:**
By eliminating unnecessary compaction cycles (**up to 90% fewer** at certain locations) and resolving simple faults **remotely** (e.g., tripped emergency-stop), **some customers reduced service visits by 17%**, faster fixes with fewer truck rolls.

> **Cost & monetization:**
The add-on hardware costs **under $1,000 per machine**. A service visit (a "truck roll") typically costs **$250–$500**, so **avoiding just two visits** usually pays back the hardware. After that, iSMART supports a **$50–$100 monthly monitoring fee per machine**, creating steady recurring revenue (in exchange for remote alerts and diagnostics).

By pairing equipment telemetry with remote diagnostics, Metro Compactor turned field service into a data-driven operation – fewer miles, faster fixes, and clearer ROI – a practical template for any dispatch-heavy SME.

American Tall[12]
Apparel | Mississauga, Canada

American Tall, a direct-to-consumer apparel brand for tall men, modernized fulfillment with ShipHero's warehouse management system plus process changes (multi-item batch picking, barcode scanning, dynamic slotting). The upgrade enabled the team to support a 400% increase in order volume while maintaining speed and accuracy.

Why it matters:

> **Scalability:**
With the new system, American Tall **handled 400 percent growth in orders in under two years** while maintaining control of in-house fulfillment.

> **Efficiency:**
The shift to multi-item batch picking and barcode validation **cut mis-shipments by about 50 percent** and removed manual double-handling.

> **Productivity:**
Two people now pick 300+ orders per day (vs. ~80 before), a step-change in throughput that projects to roughly a **275 percent** increase in efficiency.

By pairing process redesign with a modern warehouse management system, American Tall turned fulfillment into a growth engine, shipping more, with fewer errors, and headroom to scale as demand surges.

With **products** in hand, the next hurdle is reaching customers. **Marketing and sales** use cases show how AI helps SMEs personalize outreach, understand consumer behavior, and scale campaigns that once seemed out of reach.

Marketing and sales: Personalizing at scale

AI personalizes marketing campaigns, identifies customer preferences, and accelerates product launches. With these tools, SMEs can engage customers more effectively and compete with larger players.

| Inbound Logistics | → | Operations | → | Outbound Logistics | → | Marketing & Sales | → | Customer Service |
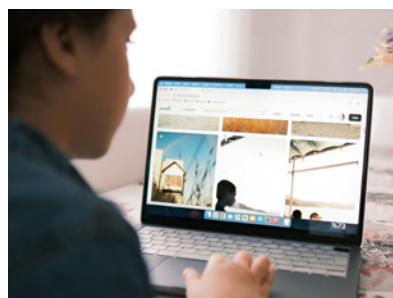
Freedom Furniture[13]
Home-furnishings retailer | Australia & New Zealand

Freedom, a leading home-furnishings retailer in Australia and New Zealand, worked with Coveo to modernize product discovery as its online assortment expanded from roughly ten thoU.S.nd to more than forty-five thoU.S.nd items and omnichannel expectations grew. Building on SAP Commerce, the Freedom and Coveo teams implemented AI-driven search and autosuggest, behavioral recommendations, and personalized merchandising through a phased rollout (≈ three months for core integration; public launch in December 2024). Crucially, merchandising retained control, category managers could pin, boost, and apply business rules while the system learned, so the experience improved without sacrificing brand or commercial priorities.

Why it matters:

> **Discovery engagement:**
  After launch, **customer sessions using on-site search grew by 15%**, indicating more shoppers are finding relevant products faster.

> **Growth of revenue per order:**
  Among shoppers who use search, **average order value rose 5.5% year over year**, showing higher-quality baskets from better discovery.

> **Scaling of product offering:**
  Freedom's online catalog expanded **from ~10,000 to ~45,000 items**; the AI search layer helps maintain findability as assortment grows.

By upgrading search and recommendations with artificial intelligence, Freedom turned a sprawling catalog into a smoother shopping experience while keeping merchandisers in control. It's a practical example of improving the customer journey without rebuilding the entire site.

Otto's Grotto[14]
Sticker microbusiness | Indiana, U.S.

Otto's Grotto is a one-person sticker brand. To increase publishing cadence and keep a professional storefront without hiring external help, the owner tested several generative-AI tools (including Jasper and ChatGPT) and now uses them in two ways.

First, for marketing production: AI drafts and refines product descriptions, keyword tags, and social captions to match her brand voice. Second, for light website maintenance: through what she calls "vibe coding," she describes a desired change in plain language, and the AI returns step-by-step instructions with a small Shopify theme code snippet to paste. This workflow lets her update Shopify and Etsy listings, add simple features (such as a wholesale page), and keep the site polished in minutes rather than outsourcing.

Why it matters:

> **Revenue:**
  The founder reported that the **shop more than doubled revenue in 2024** after adopting AI for marketing and storefront tweaks.

> **Efficiency:**
  AI drafts **listing copy and social posts** faster, so more products get published without extra hours.

Using AI for everyday copy and small site edits helped a solo seller publish more and sell more, without adding staff.

Ad Hoc Atelier[15]
Fashion ecommerce | Italy

Ad Hoc Atelier, a five-person fashion marketplace for Italian artisan brands, struggled with very high cart abandonment and slow, impersonal replies that turned shoppers away. The founders worked with Tidio to add live chat with embedded chatbots on product pages, welcoming visitors, answering sizing and customization questions in real time, and triggering exit-intent prompts to recover checkouts. The goal was to replicate boutique-style assistance online without building a call center or adding headcount.

Why it matters:

> **Conversion:**
  Website conversion rate increased **from 0.35% to 0.9%** after adding chat.

> **Cart recovery:**
  Abandonment fell from 83% to 73%, with chatbots nudging leavers back to checkout.

Real-time chat and simple automations let a tiny team deliver boutique-level help online, with fewer abandoned carts, higher conversion, and a smoother path to purchase without adding staff.

Wood Wood Toys[16]
Independent toy retailer | Ontario, Canada

Wood Wood Toys, a small Canadian wooden-toy shop (Montessori-inspired toys), needed a faster way to answer shopper questions and remove friction at checkout without adding headcount. They implemented Shopify Inbox (live chat inside Shopify) and leaned on Shopify's built-in marketing tools (Forms, Email, segmentation) to personalize outreach and keep all customer data in one place.

Why it matters:

> **Conversion lift from chat:**
  When a conversation happens, they **"win a sale eight out of 10 times,"** directly tying live chat to purchase decisions.

> **Faster fulfillment & responsiveness:**
  Operational discipline around service helped them **fulfil every order within 24 hours**, reinforcing trust for first-time buyers.

By embedding chat and lightweight automation into the store they already use, Wood Wood Toys shows how a one-or-two-person retailer can boost conversion and service quality without adding staff or tech sprawl.

Brava Fabrics[17]
Apparel e-commerce | Barcelona, Spain

Brava Fabrics rebuilt its email program on Klaviyo, moving from one-off blasts to automated flows (welcome, abandoned cart/ browse, post-purchase, back-in-stock) and simple behaviour-based segments. Using Klaviyo's AI Benchmarks to compare their performance with similar brands, the team adjusted send frequency and timing, and improved subject lines, images, and offers. The result: email became their best-performing revenue channel with far less manual work.

Why it matters:

> **Productivity:**
  60% of email revenue now comes from automations, so each new subscriber triggers revenue without additional staff time.

> **Revenue growth:**
  Email revenue grew 76% year over year, and overall **online sales grew 101% year over year** after the overhaul.

By pairing automated flows with simple audience segments, and tuning cadence and content using benchmarking, Brava turned email into a reliable growth engine: more revenue, less manual sending, and a repeatable playbook for lean retail teams.
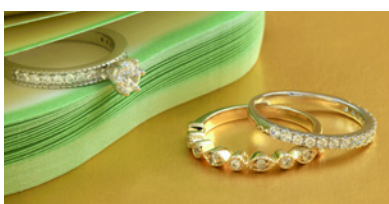
JENNY BIRD[18]
Jewelry e-commerce | Toronto, Canada

To increase revenue without adding friction at checkout, JENNY BIRD replaced a manual, rules-based upsell app with Nosto's AI-powered Post-Purchase Upsell. Instead of hand-building 20 funnels, the team now serves personalized offers immediately after checkout (15% incentive, 1-minute window), with exclusion rules for gift cards and discounted orders so operations stay smooth.

Why it matters:

> **Revenue per order**:
  Among shoppers who accept an upsell, average order value rises by 58%, about $130 extra per order on average.

> **Offer performance:**
  Versus the previous upsell tool, JENNY BIRD achieved a 13% increase in accepted upsell orders, a 9.3% increase in upsell value, and an 8.5% increase in net sales.

> **Less manual work**:
  AI-driven recommendations eliminate the need to maintain 20 separate funnels and give full control over when/where offers appear (e.g., excluding gift-card checkouts).

By pairing AI recommendations with clear merchant controls, JENNY BIRD turned post-purchase into a reliable growth lever, more revenue from existing orders, less manual work, and no extra checkout friction.

Three Ships Beauty[19]
Skincare e-commerce | Toronto, Canada

Toronto-based Three Ships Beauty integrated an AI-powered skin analysis quiz into its Shopify store, developed with Tangent AI. Customers upload a selfie, and within a minute the system analyzes over 150 skin attributes to recommend personalized routines.

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To safeguard trust, the company also published a Responsible AI Policy, outlining clear limits on automation and retaining human oversight where needed.

Why it matters:

> **Efficiency:**
Customer onboarding shrank to a **one-minute AI flow**, eliminating the need for time-intensive consultations.

> **Service quality:**
Quiz takers are **3.5× more likely to purchase**, demonstrating that personalized recommendations significantly boost conversion.

Three Ships illustrates how a SME can integrate customer-facing AI to drive measurable gains in conversion, while transparently signaling responsible use of technology.
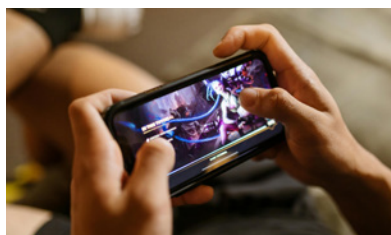
Mistplay[20]
Mobile gaming loyalty platform | Montréal, Canada.

Mistplay, a Montréal-based loyalty app for mobile gamers, uses AI and machine learning to personalize recommendations and safeguard growth. On the front end, its recommendation engine analyzes player behavior to suggest games tailored to each user's interests. On the back end, Mistplay integrated AppsFlyer's attribution and fraud-prevention tools, which apply machine learning to detect fraudulent installs and clicks before they distort performance data. This dual use of AI allowed Mistplay to scale user acquisition while protecting its ecosystem for both players and publishers.

Why it matters:

> **Efficiency:**
Machine-learning fraud prevention **saved over $470,000 in wasted ad spending**, improving return on ad-spend and freeing budget for growth.

> **Productivity:**
With clean attribution and faster partner testing, Mistplay's **active users grew 72% between Q3 2021 and 2022**

Mistplay illustrates how a digital SME can embed AI to cut waste, scale faster, and maintain trust in a high-volume, global user acquisition market.

> Winning customers is only the start. AI-powered service tools allow SMEs to provide responsive, 24/7 **support** that builds trust and loyalty.

Customer service: Predictive and proactive support

AI-powered chatbots and predictive service tools enable businesses to respond quickly and personalize customer interactions. These technologies free up staff for complex issues while improving satisfaction and loyalty.

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Simba Sleep[21]
Sleep technology retail | United Kingdom

Simba Sleep, a UK-based sleep technology brand, with over 150 employees, worked with Ada to scale customer service as the company expanded into new markets. The team deployed a generative AI agent ("Luna") across chat, email, and social media to handle routine questions and hand off sales opportunities to people, while human agents focused on complex and high-value conversations. Luna is coached on Simba's knowledge base and governed like a teammate through weekly quality checks, keeping responses accurate, on-brand, and compliant as the company grows.

Why it matters:

> **Efficiency:**
Luna resolves about 1,000 conversations per week, handling the workload equivalent of eight full-time agents and reducing manual queues.

> **Productivity:**
By reallocating just three agents to revenue tasks (abandoned carts and sales callbacks), Simba now generates ~£600,000 in additional monthly revenue (over $1,100,000 in Canadian dollars).

> **Service quality:**
 The generative AI agent outperformed Simba's previous scripted approach (and another platform) on key measures like automated resolutions and customer satisfaction, while providing round-the-clock support in existing and new markets.

Simba shows how a small support team can pair a generative AI agent with human oversight to serve more customers, enter new markets, and grow revenue, without growing headcount.
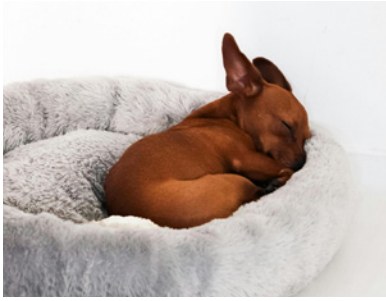
Molly Mutt[22]
Pet products e-commerce | United States

Molly Mutt, a small U.S. pet brand specializing in dog beds and accessories, integrated LimeSpot's AI-driven product recommendation engine into its ecommerce store. The tool analyzes browsing and purchase behavior in real time to personalize what products customers see across the site.

Why it matters:

> **Revenue growth:**
Overall, 13.9% of sitewide revenue is now directly attributed to LimeSpot's AI engine.

> **Productivity:**
Customers exposed to AI recommendations delivered a 12% higher conversion rate compared to the store average.

> **Service quality:**
Recommendations increased average order value by 6.2%, encouraging customers to bundle and upgrade products.

Molly Mutt shows how even niche SMEs can unlock measurable revenue gains through AI-powered personalization, competing with larger retailers by delivering smarter shopping experiences.

Eye-oo[23]
Eyewear e-commerce | Italy

Eye-oo, a multi-brand eyewear retailer, implemented Tidio's AI-powered chat flows and live chat to improve customer engagement and recover abandoned carts. By automating responses to common questions and deploying cart recovery prompts, eye-oo reduced wait times, captured more leads, and increased sales without expanding its support team.

Why it matters:

> **Sales increase:**
Achieved a 25% lift in overall sales following implementation.

> **Revenue growth:**
Generated €177,000 in additional revenue directly attributed to Tidio's AI chat features.

> **Conversion lift:**
Cart recovery automations increased conversion rates by 5× compared to the prior baseline.

> **Lead generation:**
Out of 2,233 total chat interactions, AI bots handled 1,825 successfully and collected 1,305 qualified leads.

> **Service quality:**
Average customer wait time dropped from 2–5 minutes to ~30 seconds, improving trust at the point of purchase.

Eye-oo shows how small businesses in retail can leverage AI-driven chat automation to unlock measurable revenue gains, raise conversion, and scale customer service, all without adding headcount.

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Suitor[24]
Suit rental | Australia

Suitor, a small suit and tuxedo rental business with five employees, needed to handle customer questions at all times without hiring more staff. The founders worked with Tidio to deploy Lyro, an AI customer-service agent that answers routine questions in natural language, routes complex cases to people, and keeps conversations in one place across channels (e.g., site chat, social). The setup integrated with their ecommerce stack and let the owners stay hands-on without living in the inbox.

Why it matters:

> **Efficiency:**
Up to 85% of customer service conversations are handled automatically by the AI agent; only about 24% need/request a human handoff.

> **Responsiveness:**
97% decrease in the average response time – dropped from ~3 minutes to ~6 seconds – giving shoppers instant answers and true 24/7 coverage.

> **Service quality:**
Customers get clear, conversational answers even after hours, which is important because many orders arrive after 8 p.m.; without adding headcount and cost.

With an AI agent handling most routine queries and escalating the rest, Suitor serves customers instantly around the clock while keeping its team lean; an easy, low-overhead way to scale support for a very small business.
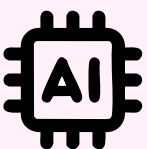
While AI is already reshaping SMEs' core activities, from production to sales and customer service, its impact does not stop there. AI is also transforming the supporting functions that keep businesses running behind the scenes. From procurement and technology development to HR and firm infrastructure, these applications may be less visible to customers but are essential for building long-term resilience and competitiveness.

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Artificial Intelligence Across the Value Chain: Enhancing Support Activities

Beyond customer-facing functions, AI is also streamlining back-office tasks like procurement, helping SMEs negotiate better terms, manage supplier risk, and save costs.

Procurement: Faster supplier coordination

AI strengthens procurement by forecasting price fluctuations, assessing supplier risks, and automating workflows. SMEs gain speed, reliability, and improved negotiation power

Materne (GoGo squeeZ)[25]
Food manufacturing | United States

Materne, the maker of GoGo squeeZ, was approaching the end of a three-year agreement with incumbent packaging suppliers and needed to rebid cartons while expanding its supplier base. The team worked with Arkestro to run a structured RFP and simulate likely market prices before inviting bids. Buyers stayed in control of the event, while the platform widened qualified options and streamlined comparisons, reducing manual spreadsheet work and making negotiations more straightforward.

Why it matters:

> **Cost savings:**
  The cartons RFP delivered US$1 million in savings at renewal.

> **Efficiency:**
  A single, structured sourcing event replaced back-and-forth renegotiations and manual comparisons, moving the team off spreadsheets and into a faster RFP flow.

> **Service quality:**
  Materne strengthened supply assurance by adding two new qualified suppliers (from three to five), ensuring backup coverage across all carton formats.

By using AI to broaden options and structure the RFP, Materne secured better pricing and a more resilient supplier mix, clean improvements to procurement without adding headcount.

First Learning[26]
Childcare operator | New York, U.S.

First Learning operates 16 childcare centers. As they grew, each center ordered supplies from many different vendors, approvals happened over email, and the accounting team had to reconcile hundreds of separate invoices every month, creating delays, late-fee risk, and lots of busy work. They adopted Order.co, a purchasing and payments platform with AI-assisted sourcing and AI order-tracking, to centralize buying, approvals, delivery status, and month-end reconciliation in one place.

Why it matters:

> **Time savings in finance:**
  The accounting team now **saves 8–16 hours every week** by replacing manual invoice work with a single, consolidated process.

> **Time savings in the centers:**
  Each location **saves about 4 hours per week** on ordering thanks to curated lists, guided approvals, and one shared system.

> **Fewer invoices to process:**
  Order.co **rolls all purchases into one invoice per location** (16 total), replacing **thoU.S.nds of individual invoices** and reducing errors.

> **Vendor consolidation:**
  The team onboarded **260+ vendors into one catalog**, so staff can find approved items quickly and buy consistently across centers.

By centralizing purchasing and invoices, and layering in AI for sourcing and delivery tracking, First Learning turned procurement from a patchwork of emails and spreadsheets into a simple, reliable workflow. The result is less administrative work, fewer mistakes, and faster, on-time deliveries to the classrooms that need them.

> AI is not only a tool to cut costs; it's also fueling **innovation**. Some SMEs are leveraging AI to create new products, services, and business models altogether.

Technology development: Unlocking innovation

AI enhances innovation capacity by simplifying product design, enabling rapid prototyping, and turning unstructured data into insights. This helps SMEs accelerate development cycles and reduce costs.

AbCellera[27]
Biotech | Vancouver, Canada

When COVID-19 struck, Vancouver-based biotech SME AbCellera used its AI-powered antibody discovery platform to compress drug discovery timelines. By combining machine learning, microfluidics, single-cell analysis, and robotics, the company analyzed immune responses at massive scale. Within one week of receiving a sample from a recovered patient, AbCellera screened more than 5 million antibody-producing cells and identified ~500 unique candidates against SARS-CoV-2. Their lead antibody, bamlanivimab (LY-CoV555), advanced from screening to clinical trials in just 90 days and went on to receive FDA Emergency Use Authorization in November 2020.

Why it matters:

> **Unprecedented scale**:
  Screened 5M cells in a week and isolated ~500 antibodies, throughput impossible without AI.

> **Faster to clinic**:
  Reduced the typical discovery-to-trial **cycle from years to 90 days.**

> **Global impact**:
  Supported treatment that secured FDA EUA during the pandemic.

This case demonstrates how AI can transform technology development by enabling SMEs to achieve industrial-scale speed and precision, showing that world-class breakthroughs are possible far beyond big pharma.

Polykar[28,29]
Sustainable packaging | Montréal & Edmonton, Canada

Polykar, a Montréal-based manufacturer of sustainable flexible packaging (e.g., garbage bags, polyethylene film) with a second plant in Edmonton, modernized its end-of-line operations by installing two collaborative-robot palletizers in each facility. Built on Vention hardware with FANUC robots, the systems use vision-guided automation and standardized software to stack finished goods onto pallets with consistent patterns and spacing. This replaces repetitive manual lifting, reduces ergonomic strain on staff, and creates a more predictable, high-throughput finish to every production run, setting up higher daily output and smoother downstream logistics.

Why it matters:

> **Efficiency:**
  After deployment, Polykar reports a **30% increase in production** (productivity) on palletizing, enabling the plants to meet rising demand with the same footprint.

> **Productivity:**
  Deploying **two robot palletizers per facility** created a consistent, high-throughput end-of-line flow that scales across both sites.

> **Quality & predictability:**
  Automation improved **production predictability** and pallet consistency, key for reliable downstream logistics.

By pairing vision-guided robots with standardized palletizing software, Polykar achieved about a 30 percent output increase while making end-of-line work safer and more predictable, an upgrade path SMEs can replicate across multi-plant operations.

> But tools alone are not enough, people matter most. AI is increasingly shaping **HR practices**, from recruitment to retention, allowing SMEs to compete more effectively for talent.

Human resources: Upskilling at scale

AI improves recruitment, workforce planning, and training. From bias-aware hiring to tailored upskilling, these tools allow SMEs to manage talent more strategically and inclusively.
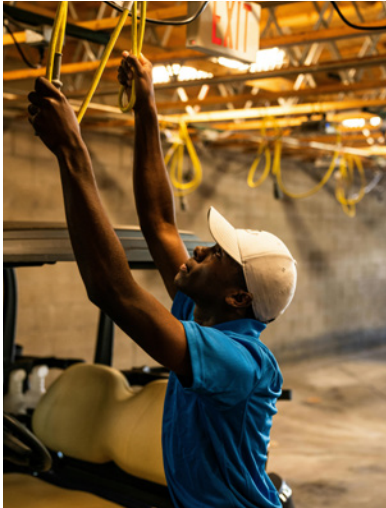
Promark Electronics[30]
Wire-harness manufacturing | Montréal, Canada

Promark, a Montreal-based maker of wiring harnesses for electric vehicles, worked with VKS to turn training and shop-floor know-how into digital work instructions: visual, step-by-step guides with photos or short videos. The system adds interactive checks and signoffs, captures in-process inspection data (who performed checks and when), and keeps version control so updates to methods are applied consistently across stations. Promark combines classroom guidebooks with on-the-job instructions, making onboarding part of daily work while keeping procedures consistent across shifts.

Why it matters:

> **Efficiency:**
  New-hire training time cut roughly in half by pairing classroom guidebooks with on-bench digital guidance.

> **Higher first-time quality:**
  First-pass yield is now over 95%, meaning less rework and fewer repeat inspections.

> **Fewer defects:**
  Standardizing steps and capturing in-process data cut defects by about 10–15%.

In short, clear, visual, step-by-step guidance let Promark train faster without sacrificing precision, raising first-time quality while keeping a lean team productive.

Fresh Restaurants[31]
Plant-based restaurant group | Toronto, Canada

Fresh Restaurants adopted 7shifts to replace manual scheduling and projections across six locations and roughly 400 staff. By integrating 7shifts with its Micros point-of-sale system, Fresh generated highly accurate sales forecasts and labor budgets, enforced schedules to prevent unbudgeted hours, and centralized team communication (time-off, availability, shift swaps, and event planning).

Why it matters:

> **Cost savings:**
Within the first eight months, Fresh reduced labor cost by 12 percent, a decline of 3.5 percentage points across all locations.

> **Productivity:**
More precise staffing increased labor productivity (sales per labor hour) by 13 percent.

> **Planning accuracy:**
Sales forecasts, and labor-budget targets reached about 95 percent accuracy, replacing time-consuming manual projections.

> **Operational discipline:**
Schedule enforcement and integrated reporting eliminated unbudgeted hours and time theft, while mobile workflows streamlined time-off, availability, and shift-swap approvals (which can be several hundred a month).

By pairing 7shifts' predictive scheduling with manager oversight and point-of-sale demand forecasts, Fresh now staffs each shift precisely and keeps labor costs in check, a practical way to scale operations across locations without adding headcount.

> Finally, AI is transforming the backbone of SME **operations**: finance, cybersecurity, and strategic planning. These applications may be less visible, but they are critical for scaling adoption responsibly.

Firm infrastructure: Automating core processes

AI supports the backbone of business operations through smarter financial planning, automated compliance, and stronger cybersecurity. This helps SMEs scale securely while reducing costs.
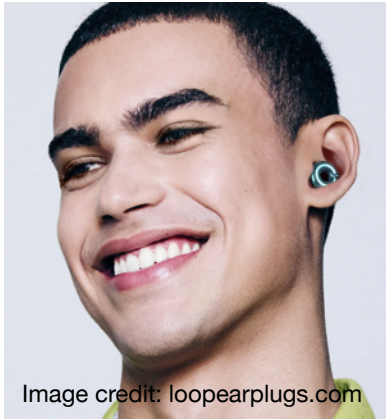

Image credit: loopearplugs.com

Loop Earplugs[32]
Hearing protection D2C | Belgium

Loop Earplugs, a Belgium-based hearing-protection brand, faced rapid growth and surging customer-support demand across chat, email, and social channels, creating long response times and mounting backlogs during peak sales periods. To fix this, Loop worked with Ada to launch a generative-AI agent ("Aura") that handles routine requests (e.g., invoices, order info) and passes complex issues to people, providing consistent, 24/7 support across channels.

Why it matters:

> **Efficiency:**
First response time improved by 194.52%, cutting peak delays from 5–6 days to ≤2 hours; the AI agent now manages the workload of 25 full-time employees.

> **Productivity:**
Even as sales increased 400% over two years, Loop reduced human-agent ticket volume by 33% by automating common requests (e.g., invoice retrieval, order edits, WISMO).

> **Service quality:**
Customer satisfaction reached 80%, with 24/7 support across chat, email, and social DMs.

> **Cost savings:**
Automation delivered a 357% ROI and reduced reliance on seasonal hiring to handle peak volumes.

By pairing Ada's AI agent with human oversight, Loop now gives customers fast, always-on help while keeping headcount in check, a practical way to scale service as the business grows.

Nolinor Aviation[33]
Charter airline | Canada

Nolinor Aviation, a Canadian charter airline, faced the challenge of processing time-intensive safety reports and incident investigations. Each case could take up to 40 hours of staff time, with manual parsing of free form reports, risk assessments, and documentation. To address this, the airline partnered with Mila to design an AI "assistant investigator" that supports compliance and regulatory processes.

The system uses Large Language Models (LLMs) to structure safety reports into standardized templates, conduct risk assessments based on internal methodologies, and prepare investigation files. An agentic AI layer augments investigations by extracting sequences, recommending corrective actions, and drawing from sources like manuals, weather data, and training records, while human investigators retain oversight.

Why it matters:

> **Faster compliance processes:**
AI reduced investigation effort from about 40 hours to 5 hours, accelerating reporting cycles and enabling more timely regulatory submissions.

> **Risk management focus:**
Investigators spend less time on manual transcription and more time on verification, validation, and applying corrective measures.

This case shows how AI can reinforce firm infrastructure by streamlining compliance and safety processes, ensuring stronger risk management while maintaining human oversight.

World Vision Canada[34]
Humanitarian non-profit | Mississauga, Canada.

World Vision Canada built a data and AI backbone to unify program information and generate donor-ready impact reports. The platform standardizes how results are captured, analyzed, and presented, giving supporters clear, personalized snapshots of outcomes while giving leaders a single source of truth for decisions.

Why it matters:

> **Fundraising outcomes:**
The organization reported a **record $503 million in FY2023 revenue**, followed by **$468.3 million in FY2024** despite sector headwinds, evidence that better data and reporting support donor confidence and grants.

> **Trust & accountability:**
> **Charity Intelligence Canada** scored World Vision Canada **207 points** (scale tops at 200), well above the sector **average of 111** and up from **87** several years earlier, an improvement linked to stronger data and public reporting.

> **Employee engagement:**
> Internal engagement **rose to 77% (March 2025)**, up from **60% (2018)** during the transformation period, suggesting cultural and workflow gains alongside the tech change.

By pairing a robust AI/ML data platform with donor-facing reporting, World Vision Canada turned transparency into a growth engine, strengthening revenue, trust, and staff engagement. It's a replicable pattern for nonprofits that need to scale impact communications without ballooning overhead.

The Way Forward

Across the value chain, AI adoption is not a single leap but a series of small, practical steps. By starting where the need is greatest, SMEs can build confidence and momentum, setting the stage for broader transformation.

These use cases show that AI adoption is not a distant prospect for Canadian SMEs, it is already happening today in ways that improve efficiency, reduce costs, and strengthen competitiveness. At the same time, adoption remains uneven, and barriers such as skills, trust, and infrastructure continue to hold many firms back. Unlocking the full potential of AI for SMEs will require confidence, training, and inclusive strategies that ensure no one is left behind.

For a deeper look at barriers, skills, and adoption strategies, see the report: Bridging the AI Gap in SMEs in Canada.

References

1   Chung-Tung, J. (2024, November 8). *IPConsul automates operations with Cisco's industrial IoT secure networking*. Cisco Blogs. https://blogs.cisco.com/industrial-iot/ipconsul-automates-operations-with-ciscos-industrial-iot-secure-networking

2   Inventory Planner by Sage. (n.d.). *SpecialKids slashes stockouts by 77% with Inventory Planner's perfect-fit solution*. Inventory Planner. https://www.inventory-planner.com/customer-stories/specialkids-slashes-stockouts-by-77-with-inventory-planners-perfect-fit-solution/

3   Novarc Technologies. (2022). *Case study: RoboFab (ONSITE3D) adopts Novarc's Spool Welding Robot*. https://www.novarctech.com/resources/case-studies/robofab/

4   Vooban. (n.d.). 20% *More efficient: The impact of smart data at Piècesd'autos Fernand Bégin*. https://vooban.com/en/case-studies/pieces-d-autos-fernand-begin

5   AlayaCare. (2023). Case study: How Bien Chez Soi powered efficiency with AlayaCare's Visit Optimizer. AlayaCare. https://alayacare.com/case-study/how-bien-chez-soi-powered-efficiency-with-alayacares-visit-optimizer/

6   IVADO Labs. (n.d.). *INVEST-AI projects.* ivadolabs.com/en/invest-ai-partners/

7   Vooban. (n.d.). *Patates Dolbec*. https://vooban.com/en/case-studies/patates-dolbec

8   Fazackarley, J. (2025, August 5). I earn up to $20,000 a month by vibe coding products to sell online. It's saving me weeks of time. *Business Insider*. https://www.businessinsider.com/make-20000-month-selling-vibe-coded-products-etsy-2025-8

9   Hightower, S. S. (2025, February 24). How one Texas-based moving company is using AI to improve safety, optimize routing, and reduce liability. *Business Insider*. https://www.businessinsider.com/texas-based-moving-company-uses-ai-to-boost-safety-efficiency-2025-2

10 Digi International. (n.d.). *Leveraging iSMART IoT technology, Metro Compactor Service monitors and manages waste equipment*. https://www.digi.com/resources/customer-stories/metro-compactor-monitors-manages-waste-equipment

11 Reevely, D. (2022, December 21). How an Ontario garbage compactor service tapped into the internet of trash. *The Logic*. https://thelogic.co/news/how-an-ontario-garbage-compactor-service-tapped-into-the-internet-of-trash/

12 ShipHero. (n.d.). *How American Tall catapulted orders by 400%*. https://shiphero.com/case-studies/american-tall/

13 Coveo Solutions Inc. (2025, January 8). *Leading Australian and New Zealand retailer Freedom Furniture chooses Coveo after competitive RFP to transform product discovery and enhance customer buying experience with AI*. PR Newswire. https://www.newswire.ca/news-releases/leading-australian-and-new-zealand-retailer-freedom-furniture-chooses-coveo-after-competitive-rfp-to-transform-product-discovery-and-enhance-customer-buying-experience-with-ai-884788661.html

14 Phillis, J. (2025). *I use vibe coding and AI to run my etsy and shopify store. it's helped me more than double my revenue in a year*. Insider, Inc. https://www.businessinsider.com/vibe-coding-etsy-seller-ai-boost-revenue-2025-4

15   Stefanowicz, B. (2025, April 11). *Ad Hoc Atelier boosts conversions using Tidio live chat*. Tidio. https://www.tidio.com/blog/ad-hoc-atelier-case-study/

16   Annie Berrones. (2021, July 8). *How Wood Wood Toys uses Shopify Inbox to differentiate and win sales*. Shopify. https://www.shopify.com/ca/blog/shopify-inbox-wood-wood-toys

17   Klaviyo. (n.d.). *Brava Fabrics grows email revenue by 76% YoY*. https://www.klaviyo.com/customers/case-studies/brava-fabrics

18   Nosto. (n.d.). F*allstudie: +58 % AOV mit Post-Purchase Upsell – Die Erfolgsgeschichte von JENNY BIRD*. https://www.nosto.com/de/kundenstories/jenny-bird/

19   Authority Magazine Editorial Staff. (2025, September). Connie and Laura of Three Ships: How AI is disrupting our industry, and what we can do about it. *Authority Magazine*. Medium.https://medium.com/authority-magazine/connie-and-laura-of-three-ships-how-ai-is-disrupting-our-industry-and-what-we-can-do-about-it-6dec7cf5b21d

20   AppsFlyer. (n.d.). *Fraud-free attribution saves $470K: Mistplay customer story*. https://www.appsflyer.com/customers/mistplay/

21   Ada Support. (n.d.). *Simba Sleep unlocked £600K+ monthly revenue and scaled global CX using their AI agent*. Ada. https://www.ada.cx/case-study/simba-sleep/

22   LimeSpot. (n.d.). *How Molly Mutt improved product discoverability on BigCommerce driving conversions up 12%*. https://limespot.com/case-study/how-molly-mutt-improved-product-discoverability-on-bigcommerce-driving-conversions-up-12

23   Tidio. (2023, October 16). *Eye-oo: How AI chatbots increased sales by 25%*. Tidio. https://www.tidio.com/blog/eye-oo-case-study/

24   Stefanowicz, B. (2025, April 11). *Suitor hits 85% customer service automation with Lyro*. Tidio. https://www.tidio.com/blog/suitor-case-study/

25   Arkestro. (n.d.). *Materne squeezes out savings and strengthens their supplier network by running an RFP on cartons with Arkestro*. https://arkestro.com/case-studies/materne-squeezes-out-savings-and-strengthens-their-supplier-network-by-running-an-rfp-on-cartons-with-arkestro/

26   Order.co. (n.d.). *First Learning reclaims 16 hours per week with AP automation and procurement AI*. https://www.order.co/customer-success-stories/first-learning/#:~:text=First%20Learning%20reclaims%2016%20hours%20per%20week%20with%20AP%20automation,center%20openings%20with%20Order.co.

27   AbCellera Biologics Inc. (2020, March 12). *AbCellera and Lilly to co-develop antibody therapies for the treatment of COVID-19*. AbCellera Investors. AbCellera and Lilly to Co-develop Antibody Therapies for the Treatment of COVID-19

28   Vention. (n.d.). *Increasing production by 30% with cobot palletizin*g. Vention. https://vention.io/customer-stories/polykar-cobot-palletizing-171

29   FANUC America. (n.d.). *How one manufacturer transformed its operations to handle surging sales*. https://www.fanucamerica.com/case-studies/vention-polykar

30   VKS (Visual Knowledge Share, Ltd.). (2025, February 11). *Promark leverages interactive work instructions to boost quality*. https://vksapp.com/case-studies/promark-boosts-quality

31   Smith, D. (2024, December 7). *How Fresh Restaurants reduced their labor cost by 12% in one year with 7shifts*. 7shifts. https://www.7shifts.com/blog/fresh-restaurants-7shifts-case-study/

32   Ada Support. (n.d.). *Loop Earplugs: scaling customer support and redefining careers with AI* Ada. https://www.ada.cx/case-study/loop-earplugs/

33   Mila. (2023, November 7). *Nolinor and Mila announce a partnership to promote innovation and safety in the aviation industry*. https://mila.quebec/en/news/nolinor-and-mila-announce-a-partnership-to-promote-innovation-and-safety-in-the-aviation

34   Latimer, E. (2025, July 29). How World Vision Canada is using AI to drive donations and boost employee engagement. *The Globe and Mail*. https://www.theglobeandmail.com/business/article-how-world-vision-canada-is-using-ai-to-drive-donations-and-boost/