

TRUEGRADIENT · CUSTOMER CASE STUDY

Franklin Sports

Reinforcement learning at the speed of fast fashion.

How a multi-generational, family-owned brand uses AI-driven challenger models to prevent stock-outs across MLB, NFL, NHL, NBA, NCAA, and MLS partnerships.

INDUSTRY

Sports Goods

10,000+ products across professional, recreational, and youth sports.

CAPABILITY

RL Forecasting

Probabilistic, account-level demand forecasts at retailer scale.

TIME TO VALUE

1 Week

From kick-off to a working Amazon challenger model in production.

THE STORY IN ONE LINE

A 79-year-old, multi-generational, family-owned sports brand deployed reinforcement-learning challenger models in seven days — and turned point-of-sale data into a competitive weapon against stock-outs.

1. Background

[Franklin Sports](#) was founded in Brockton, Massachusetts, in 1946 by Irving Franklin and is now headquartered in Stoughton, MA. Using discarded scrap leather from local shoe factories, Irving developed a line of footballs, boxing gloves, basketballs, baseball gloves, and more to provide athletes of all ages with quality athletic equipment. Much has changed since 1946, but Franklin Sports still operates with one central belief: *Sports Make Life Better*.



Franklin Sports' headquarters, Stoughton, Massachusetts.

In 1984, the company made its indelible mark on the baseball-equipment landscape by inventing the Pro Classic — the first-ever baseball batting glove. Designed with the help of Hall of Famer Mike Schmidt, the all-new batting glove quickly became a must-have for hitters across Major League Baseball. To this day, the company continues to innovate and develop new protective equipment and batting-glove technology for players, as the official batting-glove partner of MLB.

Making sports better requires order reliability and a deep focus on customer service. With a primary shipping center in Memphis, a Franklin Sports Asia office, and a network of vendor and retail partners in dozens of foreign countries, Franklin operates a global supply chain that has to be both nimble and responsive. With partnership commitments to the MLB, NFL, NHL, NBA, NCAA, and MLS, time is of the essence in driving an effective response to fluctuating demand.

2. Meet Scott Kennedy — as scrappy as the batting glove

In our effort to document the use of artificial intelligence in the supply chain, I asked [TrueGradient](#) to introduce us to Scott Kennedy. Scott is the Vice President of Digital Strategy & Analytics at

Franklin Sports — one of those rare, holistic leaders who combines deep technical expertise with exceptional people skills. He was an early adopter of TrueGradient's solution.

In our reference call, Scott took me through a no-nonsense approach. He has a burning desire to learn how to improve demand-planning workflows using the power of artificial intelligence. With a history of helping his business colleagues make better decisions with Power BI, Scott was on a mission to determine how AI techniques could improve insights for his responsive supply chain when he met TrueGradient — a responsive supply chain needs to operate effectively in a world of changing lifecycles and preferences with a short shipment cycle.

3. The business challenge

When an NFL team goes to the Super Bowl, fans want that team's gear in time for the game. The Super Bowl is a hot market. Serving the partnership requirements of professional league partners is, in effect, a fast-fashion supply chain.

When Scott first started at Franklin Sports, he built an analytical framework by pulling point-of-sale data and searching for a technology partner who could help the company turn channel data into actionable insight. The focus was to use techniques such as reinforcement learning to quickly generate predictive insights in a changing market. As markets shifted, Scott wanted to understand the drivers — and gain insight at the same speed as the market, with minimal latency.

THE PROBLEM

Fast-fashion-style spikes (championship runs, viral moments, weather windows) hitting a global supply chain that ships from Memphis to dozens of countries.

Retailers — Amazon in particular — pushing automated procurement, but persistent gaps in out-of-stocks.

A planning team blended across sales-facing and operations-facing skill sets, with a strong appetite for tools that surface insight at market speed.

4. The answer — RL-driven probabilistic account forecasting at scale

Using reinforcement learning, Scott worked with **TrueGradient** to build *Challenger Models* for his partnership with Amazon. In the challenger model, Franklin uses Amazon's point-of-sale forecast data to predict their purchase-order requirements. The Amazon account team then uses Franklin Sports' demand models to challenge Amazon's forecasts with more informed insight. Through better modelling, the sales account team has improved the relationship with Amazon and built a more collaborative partnership — by minimising stock-outs.

Definition: Reinforcement learning (RL) enables systems to learn from experience and improve their performance through interaction with their environment. RL is a branch of machine learning that uses agents to learn to maximize cumulative reward in an environment. It involves learning from the consequences of actions rather than from explicit instructions.

Key Concepts

- **Agent:** The learner or decision-maker that interacts with the environment.
- **Environment:** The setting in which the agent operates and makes decisions.
- **Actions:** Choices made by the agent that affect the state of the environment.
- **Rewards:** Feedback received from the environment based on the actions taken, which can be positive (reward) or negative (penalty).
- **Policy:** A strategy that defines the actions the agent will take in different states.

Learning Process

Exploration vs. Exploitation: The agent must balance exploring new actions to discover their effects and exploiting known actions that yield high rewards.

Feedback Loop: The agent receives feedback from the environment after each action, which helps it learn and adjust its policy over time.

Goal: The primary objective is to develop a policy that maximizes the total reward over time, adapting to changes in the environment.

TrueGradient RL planner workspace used by the Franklin Sports demand-insights team.

By design, Franklin has a group of people more closely aligned with the sales division — who can be brought into conversations and trips to retailers — and a group who sit in operations and are more traditional demand planners. The goal is a responsive supply chain that drives growth. When it comes to talent, Scott's demand-planning team runs the gamut, with a broad range of skill sets, and certain people are more retailer-focused than others.

Within a month, Franklin Sports expanded the challenger model to other retail relationships. The starting point is building a probabilistic band of what could happen in the future. From there, in

conjunction with the sales teams, the demand-insights team collaborates with each retail account to align on future orders through probabilistic modelling using reinforcement learning.

Acceptance was easy. Franklin had been working with Amazon's POS probabilistic models for years, so the concept was already familiar. When TrueGradient built a probabilistic forecast for Scott at the wholesale level, the team was already comfortable with the approach. The probabilistic forecast becomes the direction for what the sales teams want to drive. For example, if the team wants to take a deeper position on the Chiefs for the Swifties — and look at Taylor Swift's attendance at a probabilistic level — they can run different scenarios to drive alignment, then consume a plan based on what they are seeing in the point-of-sale data.

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Retailers are starting to provide automated procurement plans, but we still have a gap with out-of-stocks. The use of reinforcement learning, and the development of a predictive purchase-order plan, helps us prevent stock-outs, drive growth, and improve customer relationships. Working with TrueGradient made this easier because of the founders' experience in point-of-sale modelling. They were always there for me — I never got kicked down the organisation to work with a junior analyst.

— Scott Kennedy, VP Digital Strategy & Analytics, Franklin Sports

5. The approach — small team, fast cycles, real outcomes

Working hand in hand with TrueGradient, Scott built the Amazon challenger model in a week. The team is evolving and learning as it goes. Retailer fulfilment is improving in line with the probabilistic forecast and plan. It functions as a tool that helps the company understand the future in a supply-chain context. Working with a smaller technology partner provides the agility to move quickly. It may sound daunting, but the flexibility of an innovator collaborating with a small technology firm drives innovation at speed.

In discussions with TrueGradient, I found that Scott is an early adopter. Franklin Sports is an innovator — among the very first customers to test the Reinforcement Learning Agent and the

Customer Success Agent. The partnership has been invaluable in shaping the TrueGradient platform itself.

WHAT MADE IT WORK

Reinforcement-learning challenger models trained on Amazon POS data — built in one week, expanded across retailers within a month.

Probabilistic forecasts at the wholesale level — already a familiar pattern internally, so adoption was fast.

Direct founder access — Scott engaged with TrueGradient founders rather than being routed to junior analysts.

Co-creation, not deployment — Franklin's team helped shape the RL Agent and Customer Success Agent inside the product.

6. Wrap-up

Scott found [TrueGradient](#) through LinkedIn. The TrueGradient founders — with a deep understanding of demand and inventory analysis from their time at Antuit — moved quickly to seize the opportunity to test their solution with an innovator. TrueGradient, a no-code model, is priced at approximately 80% of the cost of a conventional demand-management deployment, and the company is eager to gain market traction.

Franklin Sports' goal is to drive reliable growth in a fast-fashion market. The technology is an enabler to the goal. Even though less than seven percent of the market is full of early adopters like Scott, he is a business leader who is not afraid to test and learn. Even though he sits in an analytics role, his focus is not technology for technology's sake — his focus is winning with customers. You can hear the drive to win in his voice.

As a multi-generational, family-owned business, Franklin Sports moved from concept to production at the speed of the business. As a result, this is a strong case study of an innovator working with another innovator — using AI techniques to improve demand-planning engines.

WHY THIS CASE STUDY MATTERS

A 79-year-old, family-owned brand chose a small AI-native partner over a traditional enterprise vendor — and got to production in seven days.

Reinforcement learning, applied to retailer POS data, turned a forecasting tool into a relationship tool with Amazon.

Probabilistic forecasts replaced point estimates as the basis for sales-and-operations alignment.

Co-creation with the vendor compressed the learning loop on both sides.

Author and credits

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ABOUT LORA CECERE

As an enterprise strategist, Lora focuses on the changing face of enterprise technologies. Her research is designed for the early adopter seeking first-mover advantage. She comes to the stage with more than forty years of diverse supply-chain experience.

She spent nine years as an industry analyst with Gartner Group, AMR Research, and Altimeter Group prior to the launch of her own research firm, Supply Chain Insights. Earlier, she spent fifteen years as a leader in supply-chain-software development at Manugistics and Descartes Systems Group, and twenty years as a supply-chain practitioner at Procter & Gamble, Kraft/General Foods, Clorox, and Dreyer's Grand Ice Cream (now a division of Nestlé).

ABOUT FRANKLIN SPORTS

Founded by Irving Franklin in 1946, Franklin Sports is a Stoughton, Massachusetts-based sporting-goods brand that manufactures and sells more than 10,000 products across many different categories.

Franklin Sports is proud of its partnerships with Major League Baseball, Major League Soccer, the National Basketball Association, National Football League, National Hockey League, Major League Volleyball, USA Pickleball, the Franklin US Open Pickleball Championships, the Women's National Basketball Association, the National Women's Soccer League, Hasbro, and many others. Franklin is a multi-generational, family-owned business with a rich history and a trusted reputation as a quality sporting-goods brand — from recreational sports to the professional level. At Franklin Sports, the team believes that sports make life better.

For more information visit franklinsports.com or follow Franklin on Instagram (@franklinsports, @franklinsportseqp, @franklinpickleball), Facebook, and X (@franklinsports).

ABOUT TRUEGRADIENT

TrueGradient is the AI-native Planning OS for modern consumer brands and retailers — replacing spreadsheets and fragmented tools across demand, inventory, pricing, assortment, personalisation, and capacity planning. Built by operators from Amazon, Walmart, Mondelēz, and IBM, TrueGradient brings enterprise-grade AI to the mid-market and serves a growing customer base across North America, Europe, Australia, and India.