

Whitepaper

Navigating the Unpredictable: Mastering Volatility in Fashion Demand Planning

Article 2 in the series: Mastering the Demand Planning Maze:
5 Critical Challenges in the Fashion Industry



Volatility and Unpredictability are not new to fashion, but the rate we're seeing today is unprecedented. We've both worked in fashion for over three decades in business and technical roles, and even the most experienced professionals haven't seen anything quite like this.

Things are changing so fast these days that we really need to step back and question everything we're doing. But before you feel that **"biziety"** creeping in (our word for when business overwhelm meets straight-up anxiety) and want to close this article, let's take a moment to breathe. We're going to tackle this step by step, nice and easy.

That said, you can't change everything at once. We know - we've been there, done that! We're going to recommend a measured and intentional approach to dealing with volatility, sharing challenges, examples, our experience, and modern solution approaches. So, grab a Venti cup of matcha and stay with us for a bit. We hope this is informational and helpful.

The New Reality: Six Volatility Drivers

Retailers today are living in an era defined by disruption, with headlines that can reshape markets overnight and volatility is the norm, not the exception. Navigating this environment requires brands to prioritize real-time planning, develop more flexible supply chains, and build and empower resilient teams ready to pivot at any moment. Volatility emerges from a variety of events and forces including:

1. **Supply Chain:** Globalization, geopolitical conflict, major disasters, pandemics.
2. **Economic Shifts:** Inflation waves, financial crises, changing consumer income.
3. **Trade Realignment:** Trade agreements/tariffs, sanctions, compliance changes.
4. **Consumer Unpredictability:** Brand loyalty shifts, value perception, micro-trends.
5. **Technology:** Ecommerce/mobile revolution, supply chain digitalization, AI/ML.

6. **Organizations:** Must be ready to sense, adapt, and act with speed. It is these organizations that will thrive amid the volatility of modern retail.

Today's Volatility Demands a New Approach

As harrowing as it may seem, volatility presents challenges, yet it also creates opportunities for change. The key is to get in front of the change so there isn't a massive company-wide fire drill which is frustrating to the entire organization. The following areas are critical to help turn uncertainty into a competitive advantage. We will cover these topics from a business and technology perspective:

1. Diversify Supply Chains
2. Master Demand Planning and Tools
3. Focus on Price Sensitivity
4. Master Digital Channels
5. Prioritize Technology Investments
6. Staying Ahead of Regulations and Policy Shifts
7. Build Organizational Resilience



1. Build Supply Chain Flexibility Through Diversification

We've known for a while that relying too heavily on one region is risky. During COVID-19 and the Suez Canal blockage, brands with fragile supply chains faced costly delays and empty shelves, not to mention disappointed customers.

From experience at a global apparel company that went on an acquisition juggernaut acquiring multiple companies, a well-thought-out supply chain strategy was paramount to sourcing synergies across the company's expanding portfolio of brands. The company focused heavily on optimizing sourcing locations while maintaining a balance to not put all manufacturing eggs in too few baskets.

As each acquisition brought disparate enterprise systems, achieving supply chain visibility required significant effort to cobble together data across many different systems. Think of pieces from twenty different puzzles all tossed into one box and then management demands a single version of the truth for visibility into the entire supplier ecosystem.

VF Corporation gets supplier diversification right. Unlike many companies that scramble in response to volatile and unpredictable markets, supply chain disruptions and external trade shocks, VF's strategy is rooted in decades of experience, emphasizing agility, geographic reach, and proactive supplier management.

For example, when sharp tariffs were initially imposed this year on products from Vietnam, Cambodia, and Indonesia, VF didn't panic. Instead, it was able to leverage its agile, asset-light model and intensified its supplier diversification efforts, swiftly reallocating production and leveraging longstanding relationships for price negotiations and rapid response. For brands like The North Face and Vans, this translates to resilient sourcing, competitive pricing, and fewer operational disruptions, making supplier diversification both

a shield and an engine for growth in the fashion industry's turbulent landscape.

Here's the lesson learned watching companies navigate these disruptions: 1) you can't predict when the next pandemic, port closure, or trade policy change will hit, 2) but you can build flexibility into your supplier base so when volatility strikes, you pivot instead of panic.



Technology Foundation:

Many brands cannot see their complete supply chain as their data lives fragmented across ERPs, logistics systems, warehouses, and multiple sales channels. Without this unified view, brands can't quickly assess the impact of disrupted supply chains, suppliers at risk, changing trade policies, or model scenarios for diversifying production to alternative regions. To build this strategic agility and manage volatility effectively, brands need three connected technology solutions.

First, a **unified data integration platform** that connects supplier tiers, production schedules, inventory positions, and external intelligence like trade policy changes. No more hunting through five different systems when crisis hits.

Second, a **supply chain visibility platform** that provides operational intelligence and early warning capabilities to navigate the constant volatility from suppliers, production issues, raw material shortages, labor disruptions, natural disasters, and changes in geopolitical trade policy.

Third, an **advanced demand planning solution** that models “what-if” scenarios, quantifying the impact of shifting production between regions, calculating cost differentials and lead times when diversifying suppliers.

These platforms working seamlessly together integrate supplier geographic and capacity

data with demand forecasts to simulate how geographic diversification affects inventory positioning, delivery schedules, and total landed costs across different risk scenarios.

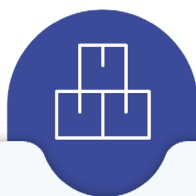
The diagram below shows these three technology solutions and their primary capabilities to support supply chain diversification

Technology Foundation - Global Supplier Diversification



Data Integration Connectivity

- Supplier networks tiers
- Near real-time production data
- Sales Channels revenue
- Real-time inventory positions



Supply Chain Visibility Platform

- Operational Intelligence
- Early warning capabilities
- Production issues notifications
- Raw material shortages



Demand Planning Solution

- Advanced demand forecasting
- What-if scenario modeling
- Cost differentials
- Lead time changes

Practical Actions to Diversification and Technology Enablement

Start slowly with vetted suppliers who meet ethical standards.

Investigate nearshoring where it balances cost and speed.

Invest in supply chain visibility and AI-enabled planning systems.

Educate consumers on price/value and sustainability practices.

2. Master Demand Planning

Traditional forecasting methods are no longer cutting it. We can no longer ask “what happened last year?” and expect accurate demand forecasts. An Excel spreadsheet is no longer an effective forecasting tool.

Companies implementing AI-driven forecasting are seeing impressive results in demand and inventory planning, reducing forecasting errors by 20-50%, minimizing stockouts by up to 65%¹. Meanwhile, apparel and fashion brands globally faced **\$70 billion to \$140 billion in excess stock during 2023-2024**².

Technology Foundation:

I’ve been wrestling with demand planning for decades, and here’s the truth: garbage data in, garbage forecasts out. And if you’re thinking AI will magically fix your forecasting problems based on bad data, then you’re setting yourself up for expensive disappointment.

Before you consider implementing AI capabilities, get your basics right. Concisely, connect the applicable source systems, and absolutely make sure the data is high-integrity and quality. Skip the latter step, and you’ll automate bad decisions at lightning speed. I have been involved with several initiatives to implement new systems which were held up because the data was not “clean.” Data cleansing and governance are a critical step and one that, if missed, can sabotage a well-thought-out implementation.

If your data’s a mess, focus on these six critical dimensions:

- 1. **Accurate:** Eliminate phantom sales, lost transactions, etc.
- 2. **Complete:** Fill gaps in product descriptions, customer profiles, etc.
- 3. **Consistent:** Standardize SKU naming, color codes, etc.
- 4. **Current:** Week-old trend data is useless when fashion shifts overnight
- 5. **Valid:** Ensure SKU formats, pricing rules, etc.
- 6. **Unique:** Eliminate duplicate customer profiles, vendor records, and product variants that fragment inventory and confuse operations

Once your data foundation is solid, explore AI-powered demand planning solutions. But don’t jump straight to advanced features. Your team needs to master fundamentals first such as seasonal patterns, inventory segmentation, and reading market signals.

Only after mastering the basics should, layer in AI capabilities. Technology works exceptionally well to spot consumer shifts and seasonal swings, but only when your team understands the ‘**why**’ behind AI recommendations, not just the ‘**what**’.

See Appendix, “**Fashion & Apparel Demand Planning - Models & Methods**” for a list and explanation of the different forecasting and planning models and methods.

Practical Actions Business and Technology Groups	
Business	• Master demand planning by auditing data sources • Establish cross-functional governance teams • Pilot with stable product categories
Technology	• Integrate multiple data sources into a unified system • Implement Ai-capable demand planning solutions with data validation first • Activate Ai functionality once data confidence is established



3. Balance Price Sensitivity Without Eroding Brand Value

In 2025, 40% of US shoppers cite affordability as their top consideration when purchasing fashion³. Nearly one in three US adults say they intentionally bought a dupe (or copy) of a premium product, with half doing so for cost savings⁴.

Several strategies can address price resistance, each with trade-offs. First, diffusion lines: by launching more accessible “special markets” brands, we kept price-sensitive shoppers within our company and expanded our base, but it required vigilant brand differentiation and structured oversight to protect our premium tier. Without clear separation and oversight, the risk of duplication can erode the flagship brand’s value.

Second, developing exclusive product for off-price retailers (like TJ Maxx, Ross...) brought in brand fans unwilling or able to pay full price. The key here is designing for the channel without cannibalizing the main line- a constant balancing act to win new customers, not devalue the core. This has been a highly successful strategy for many brands as it adds a predictable revenue stream with high profitability.

Third, dynamic pricing engines can effectively clear slow-moving stock but require transparency and a deliberate strategy to manage customer perception, since shoppers notice price differences across locations. When managed carefully, these approaches can build volume and protect margin, but each demand ongoing attention to execution and brand positioning.

Strategic Approaches:

- **Diffusion Lines:** Launch accessible sub-brands (think Giorgio Armani’s Emporio and A/X lines)
- **Dynamic Pricing Engines:** Use AI to adjust prices by region, demand, and inventory position.
- **Personalized Promotions:** Target the right customers with relevant offers

The balance is delicate: protect the brand while proving everyday value.

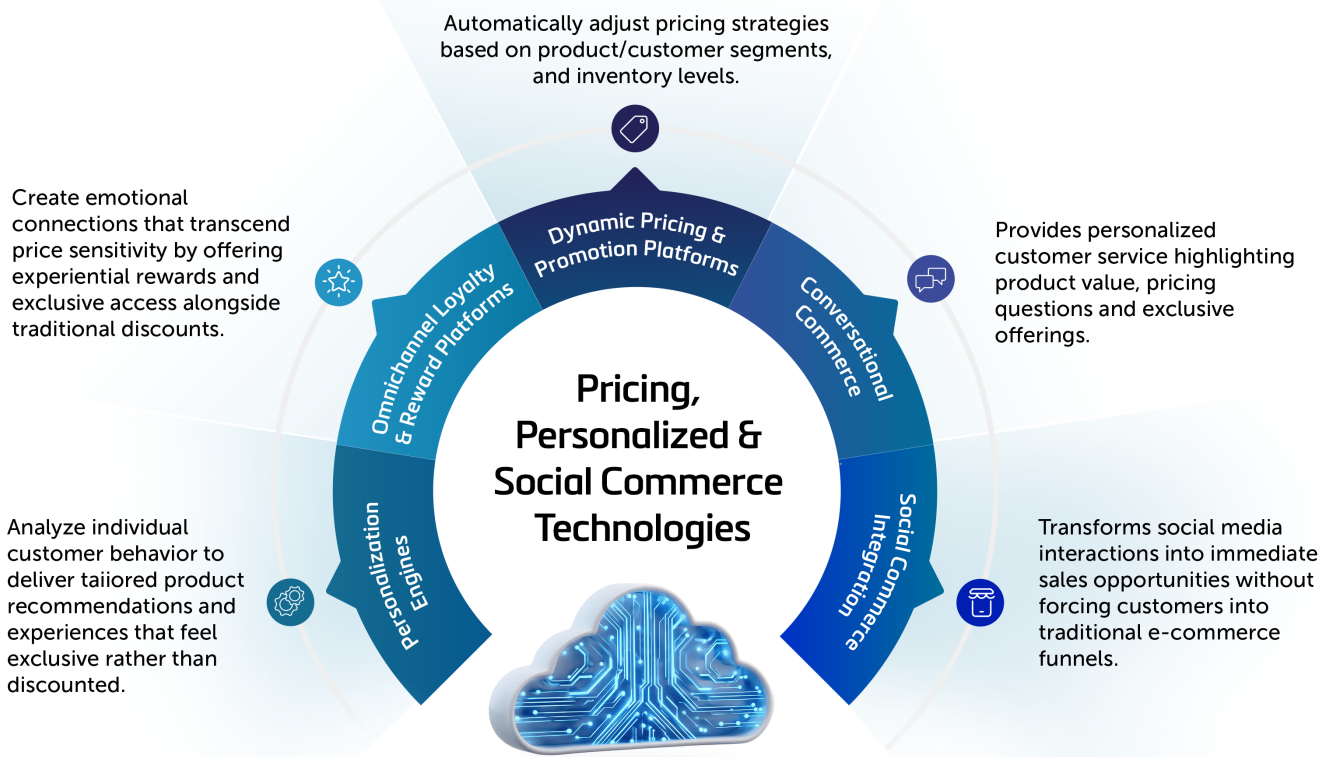
Technology Foundation:

In volatile fashion markets, the brands that thrive aren’t just the ones with great products, they’re the ones that can read consumer signals and respond quickly. Solutions that empower brands to strike the right balance between price sensitivity and long-term brand value while increasing consumer engagement during unpredictable times are a key to their success.

Below are several customer-engagement technologies that not only optimize revenue opportunities but also ensure that brand equity and customer trust are preserved across every channel.

- **Personalization Engines** dig deep into how customers shop, not just what they buy. These systems make each interaction feel personally curated, allowing brands to maintain premium positioning even when adjusting prices strategically.
- **Omnichannel Loyalty & Rewards Platforms** are where you build real relationships, not just transactions. Smart brands use these to offer experiences—early access, styling sessions, exclusive events—that make customers stick around even when competitors slash prices. Dynamic Pricing & Promotion Platforms are your secret weapon for having your cake and eating it too. They optimize pricing by customer segment and inventory levels while protecting brand perception.
- **Conversational Commerce (Chatbots & Messaging)** makes customer service feel human again, even when automated. These tools guide hesitant customers through purchases with personalized suggestions that feel helpful, not pushy.
- **Social Commerce Integration** meets customers where they’re already scrolling. Instead of forcing them through checkout hoops, you let them buy that Instagram jacket in the moment of inspiration before comparison shopping kicks in.

These solutions don't just help you make more money; they help you build the kind of customer relationships that survive market volatility and keep your brand relevant when everyone else is racing to the bottom on price.



4. Own The Digital Shelf

In today's volatile retail environment, the digital shelf is no longer just a sales channel – it's the primary battleground for brand relevance and growth.

When discussing volatility in the retail apparel sector, Covid 19 immediately comes to mind. Store closures that lasted for months forced retailers to pivot across every aspect of their business. One of the most critical shifts was the rapid acceleration of e-commerce.

Retailers with strong digital infrastructure were positioned to succeed. In fact, U.S. e-commerce sales increased 43% from 2019 to 2020 according to an article published in the United States Census Bureau.

This surge was possible because many of the foundational building blocks were already in

place: scalable digital platforms, omnichannel infrastructure, consumer readiness, logistics, networks, and secure payment systems. The pandemic didn't create e-commerce, it accelerated it. Those who capitalized on the evolution of their business models emerged as clear winners.

Today, that same lesson applies to owning the digital shelf. In an environment defined by volatility, visibility, discoverability, and control over digital product presence are no longer optional – they are the new battleground for growth.



Technology Foundation:

Brands need a comprehensive technology ecosystem to thrive in volatile markets. Brands IT ecosystem must deliver three critical capabilities: **operational agility, seamless customer experiences, and data-driven decision-making.**

For example, when COVID-19 hit resulting in widespread store closures, we found ourselves in crisis mode alongside our retail clients, working around the clock to accelerate digital transformations that would normally take years into a matter of weeks. Our teams rapidly deployed e-commerce platforms and implemented omnichannel order management systems that turned closed stores into fulfillment centers and leveraged supply chain connectivity to maintain inventory flow when traditional logistics networks crumbled.

What started as emergency response measures became the foundation for lasting digital transformation. Our clients didn't just survive the pandemic closures, they emerged with accelerated capabilities that positioned them

to thrive in the new digital-first retail landscape, proving that crisis can indeed catalyze the kind of technological advancement that might otherwise take years to implement.

The diagram below illustrates how connected applications strengthen the digital customer experience in an unpredictable market. While it may seem complex, brands don't need to implement everything at once, a phased approach mitigates risk, delivers early wins, and keeps momentum toward long-term transformation.

The solutions marked with **star bullets** form a stabilizing foundation: customer data, e-commerce, inventory, and basic analytics. These core systems ensure operational continuity even when market conditions fluctuate.

With the foundation secure, brands can layer on advanced capabilities, personalization, automation, deeper analytics, and emerging technologies like AI recommendations or AR experiences, carefully scaling innovation without exposing the business to unnecessary risk.

Comprehensive Customer Engagement IT Ecosystem



5. Invest in Technology Wisely

I've seen many brands spend way too much on new technology thinking it will solve all their problems. I often caution brands to crawl, walk, run. Your organization needs to be ready to embrace new tech.

Recommended Phased Approach:

- **Start with data** - Clean it up so you're ready for technology exploration.
- **Quick wins** - Implement improved dashboards and basic predictive analytics to show visible ROI.
- **Build foundation** - Establish strong data integration capabilities.
- **Layer advanced solutions** - Add AI forecasting and supply chain visibility when the organization is ready.

Test and adjust continuously - Evaluate emerging technologies for business value.

6. Build Organizational Resilience and Stay Ahead of Policy

The best example of resilience was how our organization responded during Covid. Decisions had to be made on the fly with limited tools. We quickly built manual tools and formed task forces, reinforcing that technology alone doesn't deliver resilience - people and processes are just as critical.

Economic and political uncertainty is the new norm. Forward-thinking companies embed compliance and scenario planning into their organizations. In tariff scenario planning, for example, we would use potential tariff changes as variables to quickly calculate bottom-line impact by category and country. Scenario planning outside of headlines is not only more efficient - but you can also make decisions quicker.

Proactive Measures:

- Establish dedicated task forces monitoring regulatory changes.
- Adapt a culture of adaptability with ongoing communication and training.
- Use compliance software to make changes automatically.
- Scenario plan so pivots feel prepared, not panicked.

Conclusion

Be Proactive, Not Reactive

Volatility will forever be a reality for fashion brands - that's part of what makes the industry exciting. With deliberate action, clear investment priorities, and resilient teams, unpredictability can be transformed from a threat into a competitive advantage.

Companies that act now to diversify wisely, modernize forecasting, balance pricing, own digital touchpoints, and build adaptive culture will not just survive - they will lead.

Your Next Steps:

- Map your supply chain exposure and pilot diversification options
- Build on a solid data foundation
- Upgrade demand planning with AI-powered capabilities
- Implement smart pricing engines while protecting brand positioning
- Strengthen e-commerce and personalize customer journeys
- Start technology investments with quick wins, then build systematically
- Embed scenario planning into regular strategy sessions
- Make resilience a mindset, not just a one-off project

Remember: Crawl, Walk, Run. Get your data clean, take a phased approach, and start with low-hanging fruit to prove value to your organization

Appendix

Fashion & Apparel Demand Planning - Models & Methods

Demand planning in the fashion industry has come a long way from simple spreadsheets and gut feelings. The tried-and-true methods like moving averages still work great for bread-and-butter items (basic tees, classic denim), anything that sells steadily year-round. But when you need to account for promotions, holiday timing, and those unpredictable demand swings that hit every season, planners turned to regression models and more sophisticated statistical methods like ARIMA to make sense of the patterns.

Then fashion cycles started moving at warp speed, and social media began creating overnight trends that could catch even the

smartest planners off guard. Traditional models just couldn't keep up with the complexity. Enter machine learning and AI algorithms that can juggle multiple data streams at once; sales history, social media chatter, pricing changes, inventory levels across channels, search trends, you name it. These newer tools are much better at spotting the subtle connections and non-linear patterns that older methods would miss entirely.

Don't get me wrong, AI has definitely opened up new possibilities in demand forecasting, especially for those trend-driven categories that can make or break a season. But it's not some silver bullet that solves everything. The most adept planners use a mixed approach. They lean on reliable traditional methods for predictable products, then unleash the AI firepower on the volatile, trend-sensitive products where catching a pattern early can mean the difference between a hit and a miss.

TABLE: forecasting and planning methods and their applicable use.

MODEL CATEGORY / MODELS	APPLICABLE USE
TRADITIONAL DEMAND PLANNING MODELS	
Moving Average (Simple / Weighted)	Useful for stable, basic items (continuity SKUs) with consistent sales (e.g., white t-shirts, black socks). Weighted versions prioritize recent sales when consumer preferences shift gradually.
Exponential Smoothing (Single, Double, Triple / Holt-Winters)	Captures seasonality and trend patterns, ideal for seasonal items like coats or swimwear. Triple smoothing accounts for trend + seasonality, key in apparel calendars.
Linear Regression Models	Effective for predicting demand drivers (e.g., promotions, markdowns, holidays, weather). Helps planners adjust forecasts based on explanatory variables.
Multiple Regression / Causal Models	Links demand to multiple factors (marketing spend, store traffic, influencer campaigns). Best for predicting impact of external drivers like TikTok promotions on footwear sales.
ADVANCED TIME SERIES AND FORECASTING MODELS	
ARIMA / SARIMA (AutoRegressive Integrated Moving Average)	Strong for time-series data with seasonality, e.g., weekly sales of sneakers. SARIMA handles repeating seasonal spikes (e.g., back-to-school, holiday peaks).
Bayesian Forecasting Models	Incorporates uncertainty and updates as new data arrives. Useful for new product launches where historical data is limited but assumptions evolve.
Croston's Method	Designed for intermittent demand forecasting, perfect for long-tail SKUs like niche footwear sizes (e.g., size 13 wide).
Markov Chain Models	Tracks consumer switching patterns, e.g., how customers migrate between brands/ styles. Useful for loyalty-driven categories (sneakers, handbags).

MODEL CATEGORY / MODELS	APPLICABLE USE
BUSINESS RULES-BASED MODELS	
Promotion & Price Elasticity Models	Quantifies demand lift based on promotions or markdowns. Helps optimize timing of discounts and prevent margin erosion.
Supply-Constrained Forecasting Models	Balances demand forecasting with supplier and raw material limitations (e.g., delays in leather supply). Ensures practical, actionable demand planning.
Weather-Driven Forecasting Models	Integrates weather forecasts into demand predictions. Highly relevant for outerwear, footwear, and seasonal apparel categories.
AI-POWERED PLANNING SYSTEMS	
Agent-Based Modeling	Simulates individual consumer behaviors influenced by peers or influencers. Can predict viral demand surges in apparel driven by TikTok or Instagram.
Clustering & K-Means Models	Groups stores or products with similar demand profiles. Helps in allocation strategies, e.g., which stores should receive more fashion-forward vs. basic stock.
Machine Learning – Random Forests / Gradient Boosted Trees	Learns from large historical datasets with multiple inputs (pricing, weather, promotions, macro trends). Great for identifying nonlinear patterns in fashion demand.
AI-Powered Demand Sensing (Adaptive)	Near real-time forecasting using POS data, search trends, and social sentiment. Crucial for fast-fashion and limited-edition drops where trends change weekly.
DEEP LEARNING AND NEURAL NETWORKS	
Neural Networks / Deep Learning (RNN, LSTM)	Handles complex, nonlinear, and highly volatile patterns in fast fashion. LSTMs can capture trend cycles from social media or global style shifts, and predict short lifecycle SKU demand.
ENSEMBLE AND HYBRID METHODS	
Ensemble Forecasting (Hybrid Models)	Combines multiple models (e.g., regression + ML + seasonal smoothing). Best for balancing stability and agility in categories with both continuity and fast-fashion items.

Citations

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About PartnerLinQ

PartnerLinQ stands out as the premier supply chain platform that redefines digital connectivity, end-to-end visibility, and decision intelligence. Built on a resilient technology infrastructure, PartnerLinQ delivers a composable platform that elevates business partner collaboration through accelerated onboarding and orchestrated processes while providing intelligent insights across your entire supply chain ecosystem. Our cutting-edge technology empowers supply chains to seamlessly adapt to dynamic demands at the speed of business.

Originally the brainchild of Visionet engineers, PartnerLinQ was designed to overcome EDI and API supply chain connectivity obstacles. The platform was further developed to improve visibility and extract insights and intelligence. The product became so successful that PartnerLinQ was spun off as a company in mid-2023 to offer its solution beyond the customers and consulting practices at Visionet Systems. PartnerLinQ's robust relationship with Visionet remains to fuel our strength. Yet the exhilarating sense of independence keeps us innovating and exploring future possibilities.

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Ellen Meiner, founder of Ellen Meiner Consulting, brings over 30 years of executive experience in fashion industry planning to her advisory work. With senior leadership roles at several iconic brands such as Tommy Hilfiger and Liz Claiborne, she offers deep expertise in strategic planning, forecasting, and change management. Ellen now helps companies navigate market challenges, optimize planning, and drive growth in today's dynamic fashion landscape.



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Kerry Fogarty, with three decades of enterprise IT leadership roles at iconic fashion brands Tapestry, Kate Spade, Fifth & Pacific and Liz Claiborne, brings his planning and supply chain expertise to drive cutting-edge industry solutions as SVP of Client Relations at PartnerLinQ, Inc.

