

style arcade



Solving Fashion's Size Curves

The retailer's guide to getting sizing right

Introduction

If sizing could truly be standardized, what would that standard be?

In the fashion and apparel market, sizing conventions vary as widely as the clothing categories themselves to cater to different consumer groups. Meanwhile, consumers are growing impatient and dissatisfied with **size variations between brands, low availability of key sizes** and the **lack of fringe sizing**.

In a social landscape where ideals of inclusivity battle the race to physical perfection, the challenge for retailers is to **balance shifting size curves with customer expectations** around representation and diversity, **while executing inventory accuracy**. And without standardized sizing, this is the industry's toughest task. The rapid evolution of retail size curves has impacts beyond inventory management.

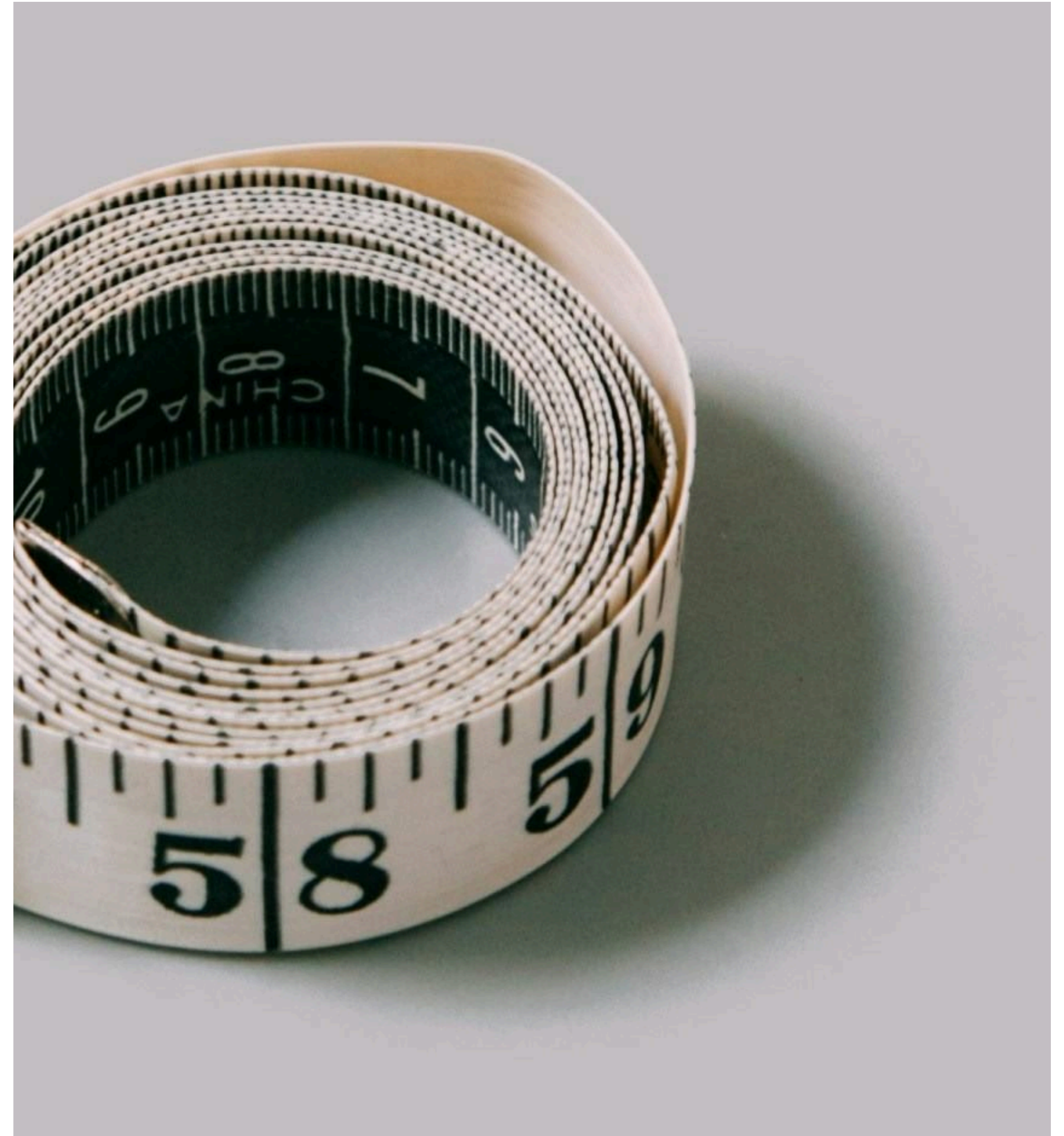
It affects the decisions surrounding store layout and visual merchandising, store assortments versus online assortments, brand transparency, digital marketing, shopping feeds and the overall approach to the customer experience.

In this report, with Style Arcade's team of merchandising experts, along with industry benchmarks and case studies, you'll discover:

- The industry and cultural trends affecting size curves
- The implications of these trends for fashion retailers
- The cost of inaccurate sizing

And, how to:

- Leverage True Rate of Sale for accurate buying by size
- Understand when to add fringe sizing and size extensions
- Navigate size inclusivity to represent your customer base



Sizing Trends and Impacts

Sizing inaccuracy

Inventory inaccuracy in size-specific assortments is a significant issue for fashion retailers, with size-level accuracy falling to an industry average of 65%. Especially with the rise of omnichannel commerce and changing consumer body profiles, brands and retailers are **losing up to 23% of profit each month due to inaccurate buying by size.**

The cost of size breaks

In most size curves for common products like tops, dresses, and pants, there are around 5 sizes: XS-XL, size 6-14, and 24-32.

When a product launches online, the size availability is at 100%, and when a size breaks in the curve, the availability immediately drops to 80%. Now, consider that the Pareto Principle says that 80% of your sales will come from 20% of your range. If the size that breaks is your most popular size for a popular product, then your size availability can actually equate to as low as 40%. For every drop of new arrivals, if your size availability starts to drop below 80-90%, you will start to see a significant decline in sales.

“Much of the problem lies in manual order qualification,” says Michaela Wessels, CEO and co-founder of Style Arcade.

“Most inventory distortion stems from inaccurate purchase order quantities, driven by skewed sales data due to out-of-stocks at the store and size level. Merchandising teams are often ordering manually, using spreadsheets to plan product, store, and size breakdowns. That process is not only complex – it reinforces existing inaccuracies in the data.”

“I estimate that manual buying using spreadsheets typically accesses only half of the data points available and only a subset of those are fully accurate.”

THE DOMINO EFFECT OF SIZE INACCURACY

Missed sales

Up to 40% of lost sales in apparel can be attributed to stockouts in high-demand sizes, especially medium and large in women’s and men’s categories.

Decreased LTV

The top complaint among customers is the inability to acquire their size, with customers often finding their desired size unavailable in-store, despite it showing as “in stock” online.

Overstock of low-demand sizes

Retailers frequently over-order less common sizes (e.g., XS, XXL), which leads to markdowns and waste. These sizes can represent up to 30% of unsold inventory, reducing margins.

Dealing with deadstock

Unsold stock reduces revenue and profit with the loss of unit costs, as well as increased warehouse costs, as mounting inventory means more shelf space is required.

Discount or dump

Businesses that fail to sell heavily discounted items may contribute to environmental waste, with 60% of brands behind on sustainability targets.

Sizing inconsistency

Global differences

Apparel sizing differs significantly across countries due to varying measurement systems, body shape assumptions and fit preferences. With the rise of e-commerce and cross-border delivery, global size conventions are causing customer confusion, order mistakes and misunderstandings around the types of clothing fits specific to their regions.

For example, global conversions for US apparel Size 6:

US	UK	EU	AU	France	Italy	Japan
6	10	32	10	40	42	9

- **US:** Tends to adopt vanity sizing across the mass market, with sizes often labeled smaller than actual measurements.
- **UK:** Numbers are roughly 2 sizes larger than the US
- **EU:** Uses a single number system based on body measurements in centimeters (e.g. 36, 38, 40)
- **Japan:** Uses both numeric and letter-based systems (S, M, L), often tailored to a more petite body shape
- **Australia:** Similar to UK sizing, but varies slightly by brand by letter-based (S, M, L) and numerical (1, 2, 3)
- **France/Italy:** Similar to EU sizing but with regional adjustments

Vanity sizing

In addition to global size disparity, brands may employ specific sizing tactics as part of their brand strategy. Size data from 10,000 women’s jeans brands found that the **actual waistband measure can vary as much as 5 inches**. As finding the right clothing size is an inherently psychological experience, practices like vanity sizing – the deliberate adjustment of size labels to appear smaller than the actual body dimensions – mean consumers are more likely to purchase from a brand if they fit into its “smaller” size. Fast fashion and department store brands are more likely to engage in vanity sizing to attract a broader customer base, while luxury brands are known to lean toward slimmer sizing standards to reinforce exclusivity.

Product vs. size availability

According to **Particl**, over the last year, product assortment availability has generally expanded, particularly within smaller and midsize companies. This reflects a strategic focus on refining product and size mixes to meet evolving consumer preferences and drive profitable volume growth. However, with **increased product availability comes further issues like fit problems and early size curve breaks for popular sizes**, which impact customer satisfaction and lead to higher levels of excess inventory.



IMPACTS OF SIZING INCONSISTENCY

Unstable consumer loyalty

Shoppers may return to brands where they "feel smaller." On the other hand, customers may become frustrated and boycott brands where they find there are different sizes across clothing categories.

Increased bracketing

The practice of online shoppers buying more than one size in the same item, with the intent to return the unwanted item, increases return rates and logistics costs.

Weak customer experience

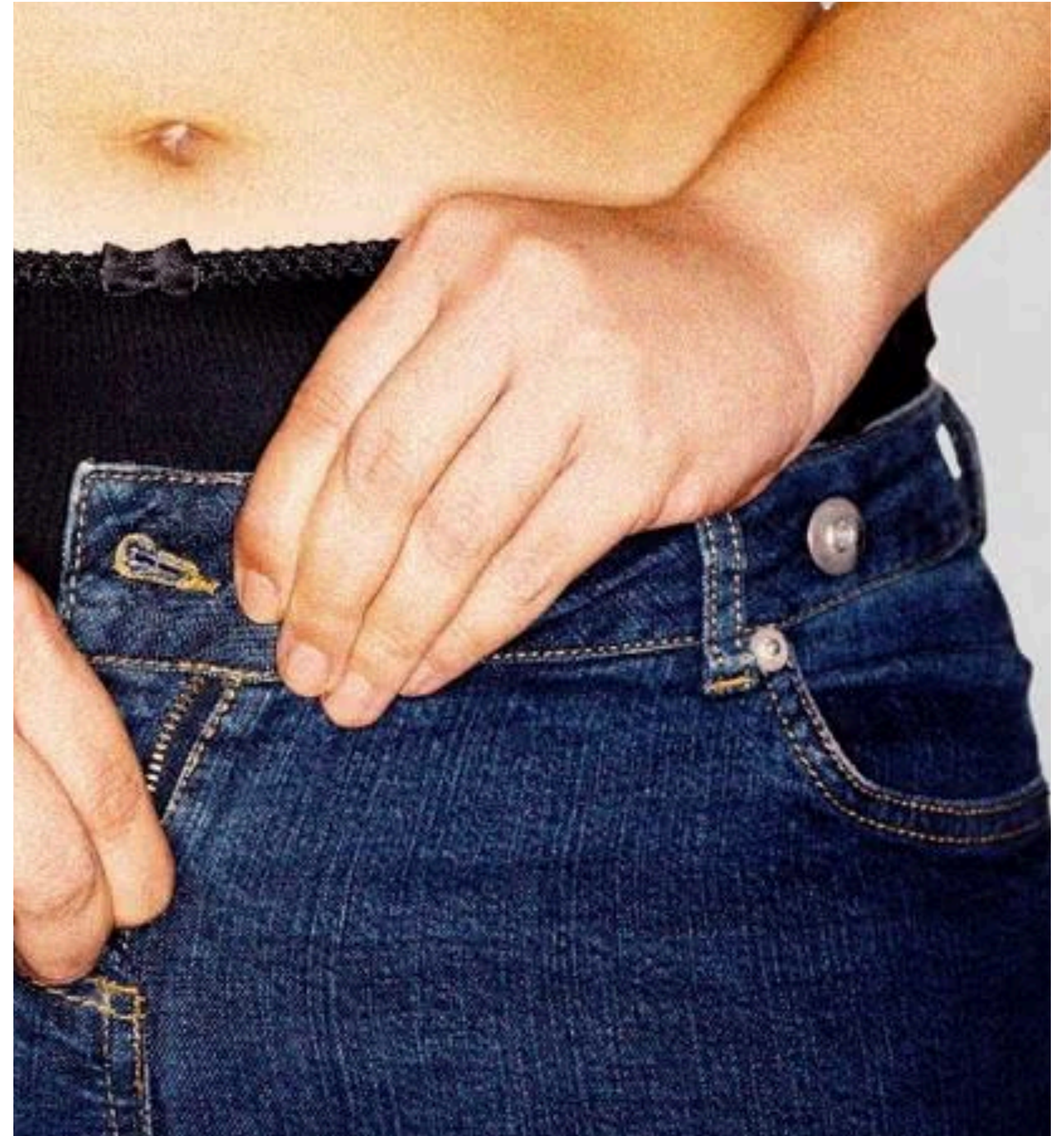
The online shopping experience suffers when customers receive sizing mismatches, resulting in increased return rates and lowered customer satisfaction.

Influential customer reviews

With 95% of customers reading reviews to inform their purchases, negative customer reviews around size and fit significantly impact purchase decisions.

Poor size availability

Inaccurate size curves lead to customer disappointment and excess inventory when an item sells out of the most popular sizes with the most consistent fits.



The shift to smaller sizes

Weight-loss drugs have come as one of the great blindsides of modern retail, with GLP-1 medications almost single-handedly reversing the pre-COVID inclusivity and body diversity boom. As reported by the *Washington Post*, the share of US adults using GLP-1 drugs more than doubled over about a year to 12.4%. Over the same period, the US obesity rate reportedly fell from 40% in 2022 to 37% in 2025.

- In the US, **women** are more likely to take GLP-1 drugs than men (15% vs. 9%), including about one-fifth of women aged 50 to 64.
- Rent the Runway CEO Jennifer Hyman told the *Wall Street Journal* that more customers are now embracing “**edgier, body-hugging styles,**” with more customers switching to smaller sizes than at any point in the last 15 years.
- Lafayette 148 CEO Deirdre Quinn told the *WSJ* that **5% of their clientele are buying smaller sizes**, and not just by one size. Customers often downsized from a size 12 to a size 6 or 8.
- **Lululemon** noted in a 2024 earnings report that the brand “came into the year with some **missed opportunities** across our size profile, particularly our **smaller sizes.**”
- PwC retail leader Kelly Pedersen mentioned that some US clothing brands have seen an **uptick in sales of more form-fitting clothing** and increased demand for dresses and resortwear like swimsuits and cover-ups. Pedersen predicts a similar trend will happen with **activewear.**

IMPLICATIONS OF RAPID DEMAND FOR SMALLER SIZES

Demographic shift

GLP-1 users are predominantly 20–50-year-old women in urban markets with higher disposable income. Brands that cater to this target market will need to adapt to users gradually shifting from their existing size to their steady-state size.

Dynamic size curves

Size curves will need to be updated more frequently with the continuous adjustment of customer size forecasts.

Inventory imbalance risk

Impact Analytics suggests size distribution will tilt towards smaller sizes and away from plus sizes, cautioning that even a 2% transition can cause an increase in excess inventory by 5–6%.

Margin erosion

Impact Analytics also projects a missed sales opportunity of ~2%, equating to a margin reduction of ~4%.

Wardrobe reset opportunity

Retailers well-placed to cater to the shifting market demand could benefit from ‘revenge shopping’ – customers who reach their steady-state size will need an entirely new wardrobe.

The rise of micro-trends

Social media's highly visual and appearance-focused content, coupled with prominent runway trends focused on nostalgic silhouettes, has affected consumer psychology around clothing size. Despite past progress in body positivity and diversity runway casting, the last couple of years have seen the rise of TikTok, Pinterest and Instagram's obsession with 90s minimalism, Y2K silhouettes and ballerina-inspired style. All trends that promote a certain body type.

As fashion is a lever for expressing social identity, particularly for younger generations, algorithms have been able to successfully drive the gamification of shopping. Constant new trend '-cores' lead shoppers looking for social validation to participate in incessant, impulsive buying. This is most evident from fast fashion retailers whose low-cost appeal and speed to market times ensure there's always something new to purchase.

Retailers that focus on leveraging the consumer hype of micro-trends are also buying into specific body types for their target customers. This leads to the de-prioritization of inclusive sizing and the lack of availability to a wider range of body types.

- **'Skinny Leg'** rose by 238% in terms of average revenue, led by jeans and jumpsuit categories, according to ecommerce data analysis platform, Particl.
- Online searches for **skinny jeans** have increased significantly, with reports indicating a 50% rise in mentions and a 33% uptick in Depop searches since January 2024
- **'Bodysuits'** in apparel categories have experienced a 105% increase in revenue to make up \$20.2 million in sales from over 1000 companies, according to Particl.
- Items categorised under the **'Slim Fitting'** trend have increased 75% in average revenue contribution



IMAGE CREDIT

The growing plus-size market

With the plus-size market poised for continual growth, fashion businesses must weigh up the brand and profit implications of still treating extended sizing as a separate 'other' category. Many retailers make the mistake of treating plus sizes as they would trend-based collections, with merchandising investments that do not match those of a core line category and thereby limiting the potential choices available to their customers.

On the other hand, brands that do invest are quick to remove the sizes when the results don't move the needle as fast as expected. It's not as simple as adding more options; catering to the extended edges of your bell curve means having the right models, video and imagery to support the customer experience. As consumer advocacy for inclusivity grows, brands that can correctly assess demand for sizes up and down the size curve will gain a competitive edge.

Even though GLP-1 usage is projected to rise to 20% of 133 million obese Americans by 2035, this hasn't stopped retail giants like Target, Nordstrom and Walmart from widening their plus-size product lines. Similarly, in the UK, the plus-size industry has experienced robust expansion with greater sensitivity to size inclusivity from retailers like ASOS Curve - which holds the majority of the market share at 14% - Marks & Spencer and New Look, while Australia's City Chic label has recently reported a \$14m profit turnaround, with its FY25 trading margin rising by 350 basis points to 59.7%, matched with a 12% fall in inventory.



PLUS-SIZE MARKET KEY INSIGHTS

- The plus-size market is booming and projected to reach USD 319,821 million in 2025 and 583,451 million by 2035 at a compound annual growth rate of 6.2%.
- North America dominates the plus-size clothing market with a revenue share of ~44%, followed by China, Japan, Germany and the UK
- Women dominate the market share at ~52% with more choices available
- The average woman's size in the US is currently between 16-18 (or XL-XXL), compared to size 14 a decade ago
- Casual wear leads the plus-size clothing market due to high daily demand and work-from-home scenarios
- Activewear is one of the fastest-growing plus-size niches globally
- 1XL and 2XL capture the largest percentage of plus-size clothing sales because they cover most average size ranges

Reaching Size Accuracy

Calculating size curves and size availability

Precisely calculating ideal size ratios is crucial to influencing any retailer's profit margin.

If we go back to the idea that when a size breaks in the curve, your Size Availability immediately drops to 80%, or for popular products, as low as 40%, we know that blanket quantities across sizes just won't cut it.

Brands and retailers should consider a weighted approach to Size Availability and **start allocating according to the size sell-through** data of each category.



BASSIKE MELBOURNE STORE

The golden rule of size availability

All fashion brands, whether new arrivals drop weekly, monthly, or seasonally, need to have **100% size availability for a minimum of 2 weeks** after they launch the product. If your size curve breaks within those first few weeks, you weaken conversion and full-price sell-through. Protecting complete size availability during this window is essential to give you the highest chance of converting on launch hype and acquisition costs.

Size availability is a very difficult metric to calculate accurately within traditional spreadsheets and reporting systems. Fashion retailers need to be able to analyse the product performance before it sells out, or is discounted, and ideally while it's having time in the limelight.

Size curve accuracy with True Rate of Sale

Many retailers compare the sales units versus the intake units in each size across a given timeframe to determine the rate of sale and make new size ratio decisions based on this. However, this method does not take into account if a **size sold out**, if the product was **discounted**, or how **aged** the stock was. This is **not** the true rate of sale. It masks lost demand from sold-out sizes and inflates performance from discounted stock, resulting in misallocated inventory and margin erosion.

Calculating True Rate of Sale

1. Measure the sales units **ONLY** while sizes are in stock to ensure accurate representation of your true demand size curve
2. Measure the sales **BEFORE** you discount the style to avoid artificially inflating your sales with discounting
3. Measure your sales when you have a statistically significant sample data set for each product, for example, when you have sold at least 30% of the total units bought
4. Measure the size curves at the most granular level possible, for example by Channel, Store, Category, Subcategory, Silhouette and Colour, because as each store has a different sizing profile, so does each colour and silhouette

Navigating fringe sizing and size extensions

So, to size up or to size down? With market growth signalling the need for sizes on both ends of the size curve, brands and retailers have the opportunity to assess whether extending their size ranges is a profitable move.

When to extend your size range

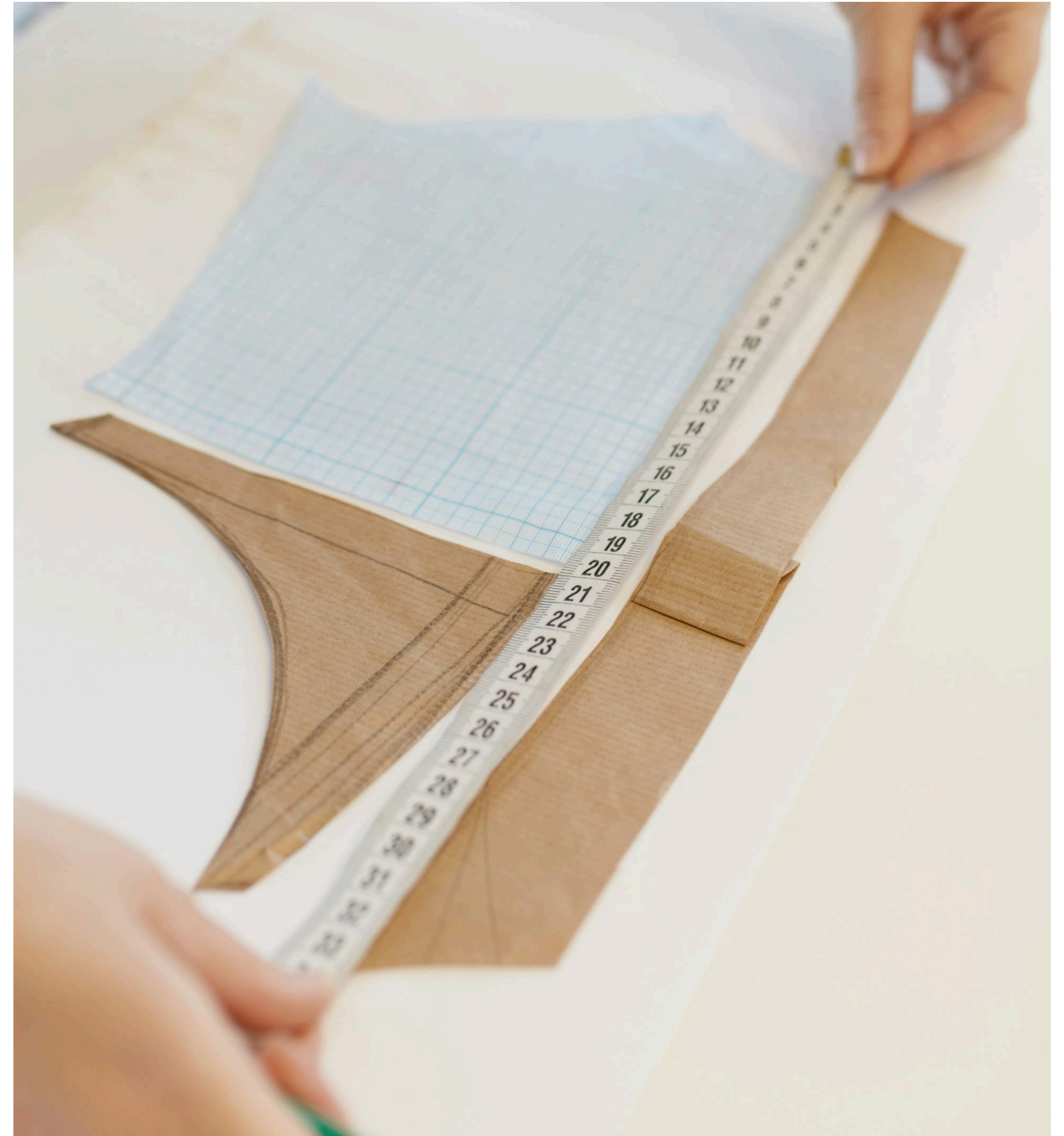
To begin with, brands must be validated in their core sizing with strong sales and low return rates. Digging into your data will prove you have a solid sizing foundation where your core audience is satisfied with your consistent fits. Consider:

- What does the full-price sell-through percentage indicate for your current sizes?
- Do repeat purchases come from customers who shop for the same size across your product range?
- What percentage of your returns are size related?

“You have the opportunity to recognise when you can extend your size ranges and add larger or smaller sizes on either end of your curve,” says Michaela Wessels, CEO of Style Arcade. ***“With a clear mathematical guide, if you look at your ratio and the end sizes are more than 15% - in a typical 7 size ratio curve - of your total sales, then there’s an opportunity for you to add in a fringe size.”***

“However, not all products will be popular in plus or petite fringe sizes,” she cautions.

“When determining your plus-size assortment, use the data points that already live in your existing size range. If you’re analyzing performance by product, add extended attribution to bring the data to life. For example, the size demand by colour, by neckline, by silhouette and by print type”.



How to determine demand for fringe sizes

ASSESS CUSTOMER DEMAND METRICS

With the correct collection and analysis of customer data, you can determine whether your customer base is sending you direct signals to extend your sizing.

The rate of sale when in stock:

Consider the True Rate of Sale of your end sizes, that is, when all sizes were in stock, without discounts, and when the stock was new.

Size-specific search data:

Searches for specific sizes (e.g., “XXL jacket” or “size 4 petite”) on your site or sales channels.

Return rates by size:

High volume of returns for end sizes with return reasons that indicate the current size curve lacked more options.

When the size curve broke:

Analyze the first size in the curve that was sold out and the week that this occurred, to determine demand for more sizes in that range.

Size-based product requests or feedback:

Volume of customer service inquiries or reviews mentioning size availability in online chat transcripts, social media commentary and feedback forms.

Back in Stock sign-ups by size:

High sign-ups for out-of-stock fringe sizes may indicate unmet demand.

ANALYZE TEST-AND-LEARN METRICS

Once you're ready to test the initial run of your extended sizing options, staying on top of sales and customer data will help you manage your new inventory and determine whether to continue with the fringe size investments.

Fringe size Sell Through % (when in stock @ full price):

Compare the fringe size sell-through to other sizes in the same category. Ensure you use the full price and in-stock rate so that demand signals are pure and accurate.

Fringe size Return Rate %:

Fit issues can be higher in the new sizes, so monitor the return rate, which should be no more than 20% above other sizes.

Fringe size Repeat Purchase Rate %:

The higher the rate, the better it is to indicate satisfaction and long-term potential.

Fringe size Contribution Margin:

This is the calculation of the selling price of the product, less the cost of goods sold and the size-specific operational costs. It should equate to a positive contribution margin to determine its potential to your profit.

$(\text{Price Per Unit} - \text{COGS} - \text{Fringe Size Costs}) = \text{Contribution margin}$

Case Studies

How Meshki improved size accuracy

CHALLENGE

Missed full price sales due to under-invested sizes

Certain sizes were either not stocked enough or sold out quickly, meaning customers couldn't purchase their preferred size at the full price.

Inaccurate and poor size ratios

Poor sizing accuracy would lead to missed sales opportunities for popular sizes or excess inventory of less popular ones.

OUTCOME

Improved sizing accuracy

Style Arcade's advanced Size Curves helped Meshki achieve up to 93% sizing accuracy, optimizing product investments by ensuring the right amount of stock was allocated to each size.

Aligned customer demand

With Style Arcade's True Rate of Sale metric, Meshki was able to capture more full-price sales and reduce the cost of markdowns (up to 40% discount).

Increased profitability

By aligning purchases with the ideal size curve, Meshki identified key under-invested sizes, resulting in a 12% profit upside in the dresses category.



How TIBI simplifies sizing

When determining sizing quantities before Style Arcade, Karolina Kozłowska, Tibi's Director of Planning, had been re-running size curves for every buy that involved not only collecting data, but checking data for accuracy and then configuring the data. With so many ERP and e-commerce platforms used by fashion brands without visual capabilities, the team knew of the risks of mislabeling historical products and ending up with inaccurate results.

"We now can easily pull truly comparable products (the comparability is determined by pictures, size convention filters and AI image analysis) and size accordingly," said Karolina. *"This capability is not only a massive time saver but also delivers accuracy."*

Here are the rules that Tibi's planning director, Karolina Kozłowska, goes by to reduce sizing complexities across the business and for customers.

- **Collect and analyze sizing data effectively:** Use intelligent, visual tools like Style Arcade to automate data attribution and analyze customer size preferences.
- **Be intentional about size conventions:** Offer different sizing structures (e.g., xxs–xl vs. 00–14) and additional lengths only when necessary.
- **Educate customers on fit:** Use content (e.g., Instagram and website descriptions) to inform customers about oversized fits to reduce sizing confusion. Be strategic with length options, and always be transparent about offering different lengths only when alterations would impact the design's intended shape.
- **Prioritize recent data:** A customer's understanding of how a brand fits evolves, so focus on the most recent sales trends, not older seasons, when making sizing decisions.

Tibi also uses Style Arcade for demand forecasting, where they have seen improvement from assessing the platform's True Rate of Sale metric.



"The True Rate of Sale considers how fast each size is selling," explained Tibi's President, Elaine Chang. *"Essentially, if you don't buy enough of a specific size, you can't meet the demand and this metric corrects it. So, when we place replenishment stock, we can address the opportunity more accurately."*

How SIR. optimized a winning category

Using Style Arcade, SIR. could clearly outline that one of their strongest categories was tops. Initially, they had a very narrow size ratio, which meant they were only serving a small slice of the customer base. With more investigation, other categories showed demand across both smaller and larger sizes.

By iterating on their approach, they expanded the range of silhouettes, fabrications, and fits offered in tops, creating a broader size ratio and capturing greater market share. This allowed them to serve both smaller and larger customers with products better suited to their bodies, reflecting a more thoughtful approach to product development and growth.

The team rebalanced ratios strategically, avoiding unnecessary stock build and protecting sell-through performance.

With Style Arcade's advanced sizing capabilities, SIR. was able to:

- **Facilitate efficient sizing analysis:** This allowed the team to ditch large, clunky spreadsheets.
- **Enable analysis of return rates by size:** They were able to identify issues with products having high returns in a particular size
- **Identify overstocked sizes:** The size calculator helped to uncover that stores sell size 4 almost equally to size 3.
- **Support the goal of expanding the size range and size inclusivity:** Product diversification led to increased sales in sizes 2 and 3, moving away from 80% sales in sizes 0 and 1.

Using Style Arcade's sizing metrics, SIR. anticipates 60% growth on the prior 24 months.

