



BRIDGING SIZING GAPS: INDIAN WOMEN'S MEASUREMENTS VS. INTERNATIONAL STANDARDS

1st Author – Zulaika Asif

Associate Professor and Head of the Department
Dept. Of B.Sc Fashion & Apparel Design
IDeA Worldwide College, Bengaluru, India

Abstract

Clothing is more than just a necessity—it is a powerful means of self-expression and confidence. Yet, for countless Indian women, the simple act of finding well-fitting clothes remains a persistent struggle. The root of this problem often lies in the disconnect between the unique body measurements of Indian women and the sizing systems used by most fashion brands, which are typically adapted from Western standards. This mismatch not only leads to discomfort and dissatisfaction but also results in high rates of returns, especially in the rapidly growing online shopping sector.

This research paper takes a closer look at this pressing issue by conducting a comprehensive statistical analysis of Indian women's body measurements and comparing them with established international sizing systems from the US, UK, and EU. Drawing on large-scale anthropometric datasets and recent industry surveys, the study identifies significant gaps between Indian consumers' actual body profiles and the sizing charts currently in use. The findings reveal that the prevailing "one-size-fits-all" approach fails to account for the diversity and distinctiveness of Indian women's body shapes, leading to widespread fit issues across the country.

By highlighting these discrepancies, this paper not only underscores the urgent need for India-specific sizing standards but also offers a practical framework for developing new, data-driven sizing charts tailored to the Indian market. Ultimately, the research aims to spark meaningful change in the Indian fashion industry, paving the way for more inclusive, accurate, and consumer-friendly sizing practices that celebrate the true diversity of Indian women.

Keywords: Indian body measurements, Women's sizing standards, Fashion industry, Anthropometric analysis, Garment fit, Clothing size comparison, International sizing systems, Plus-size fashion, Apparel sizing gaps, Data-driven sizing, Indian fashion market, Body shape diversity, Ready-to-wear sizing, Fashion inclusivity, Statistical analysis in fashion

Introduction

The world of fashion is a vibrant tapestry of creativity, culture, and commerce. Yet, beneath the glamour of runways and glossy magazines lies a fundamental challenge that affects millions of women every day: finding clothes that truly fit. In India, this challenge is particularly acute. Despite the country's booming fashion industry and its growing influence on the global stage, Indian women often struggle with ill-fitting garments, inconsistent sizing, and a lack of representation in sizing standards. For many, shopping for clothes—whether in a bustling market or on a sleek e-commerce platform—can be a frustrating experience marked by uncertainty and disappointment.

At the heart of this issue is a disconnect between the body measurements of Indian women and the sizing systems used by most fashion brands operating in the country. Historically, Indian apparel sizing has borrowed heavily from Western standards, particularly those of the US, UK, and Europe. However, these sizing systems were developed based on the body proportions of Western populations, which differ significantly from those of Indian women in terms of height, waist-to-hip ratio, and overall body shape. As a result, a “medium” in one brand might fit like a “large” in another, and many women find themselves caught between sizes or forced to settle for clothes that don’t flatter their unique silhouettes.

This lack of standardized, India-specific sizing has real-world consequences. It not only undermines consumer confidence and satisfaction but also leads to high return rates, especially in online shopping—a sector that has seen explosive growth in recent years. Moreover, the problem is even more pronounced for plus-size women, who often face a limited selection and even more inconsistent fits.

Despite these challenges, there has been surprisingly little comprehensive research on the actual body measurements of Indian women and how they compare to international sizing standards. Most brands continue to use generic size labels like XS, S, M, L, and XL, which do little to address the diversity of body shapes found across India’s regions and communities.

This study seeks to fill that gap. By analyzing the latest anthropometric data and comparing it with international sizing systems, this research aims to shed light on the unique body measurement profiles of Indian women. The goal is not only to highlight the shortcomings of current sizing practices but also to propose a framework for new, evidence-based sizing standards that can better serve the needs of Indian consumers. In doing so, this paper hopes to contribute to a more inclusive, data-driven approach to fashion design—one that celebrates and accommodates the rich diversity of Indian women’s bodies.

Literature Review

The Indian Context

Indian women come from a wide range of ethnic backgrounds, regions, and lifestyles, resulting in diverse body shapes and measurements. However, most Indian fashion brands use generic sizing labels such as XS, S, M, L, XL, and so on. These labels are often based on rough estimates or outdated data, leading to inconsistencies across brands and frequent consumer dissatisfaction.

Recent studies utilizing advanced 3D body scanning technology have identified four predominant body shapes among Indian women: Hourglass, Rectangle, Trapezoid, and Bottom Hourglass. These studies also reveal significant regional variations, with certain body shapes more prevalent in specific parts of the country. Plus-size women, in particular, face acute challenges, with poor fit at multiple body sites and limited access to fashionable, well-fitting garments.

International Comparisons

International sizing systems—such as those used in the US, UK, and EU—are typically based on extensive anthropometric surveys and use precise numerical sizing (e.g., 6, 8, 10, etc.). These systems are designed to fit the body proportions of their respective populations. However, research shows that there are significant differences in body proportions between Asian and Western populations. For example, Indian women often have different waist-to-hip ratios and torso lengths compared to their Western counterparts. This makes direct adoption of international sizing systems inadequate for the Indian market.

Research Methodology

Data Collection

Given the lack of access to primary data, this study relies on secondary analysis of the largest available anthropometric dataset for Indian women. This dataset includes measurements from over 13,000 women aged 15–70, representing all major regions of India. Key measurements analyzed include bust, waist, hip, and upper hip girths.

For comparison, size charts and anthropometric data from the US, UK, and EU were collected from published sources and industry standards.

Statistical Analysis

Data Sources and Sample

the analysis draws on:

INDIA size project data: Over 26,000 Indian participants (13,000+ women), pan-India, aged 15–70, using 3D body scanning for accuracy.

Mys Tyler Insights: Data from 22,800 Indian women aged 18+, providing current body size distribution and average sizing.

Published anthropometric surveys and size charts for US, UK, and EU populations for international comparison.

Key Measurements Analysed

The primary measurements considered for sizing are:

Bust Girth

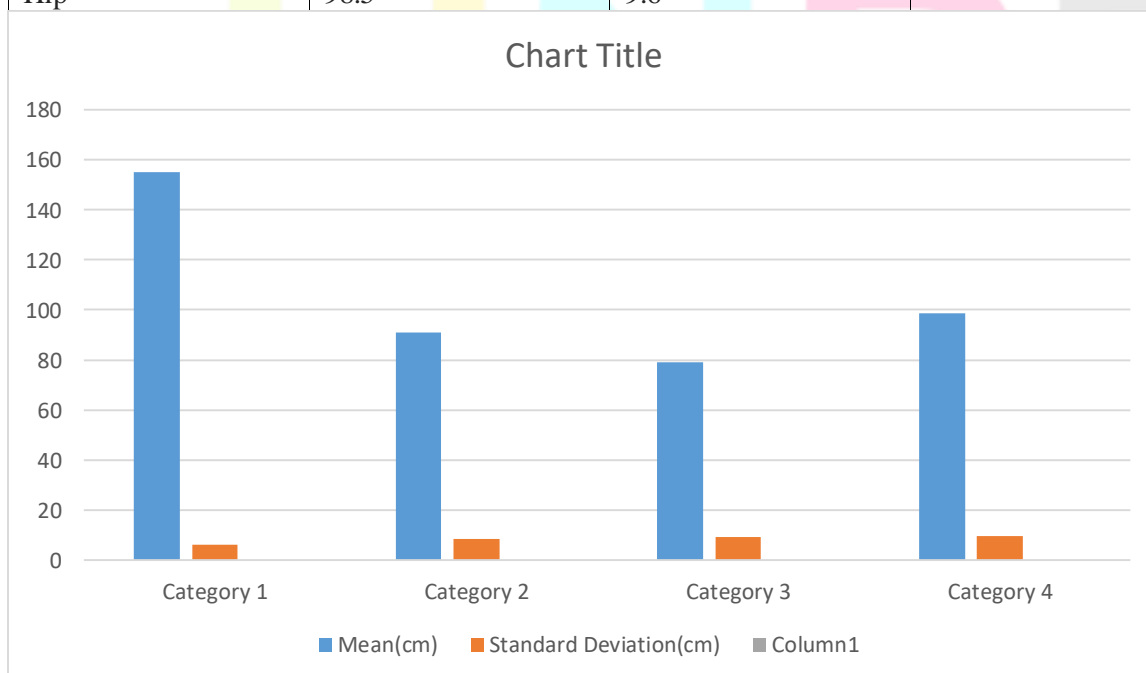
Waist Girth

Hip Girth

Height

Table 1: Mean Body Measurements of Indian Women (Aged 18–65)

Measurement	Mean (cm)	Standard Deviation (cm)
Height	155.2	6.2
Bust	91.0	8.5
Waist	79.2	9.1
Hip	98.5	9.6

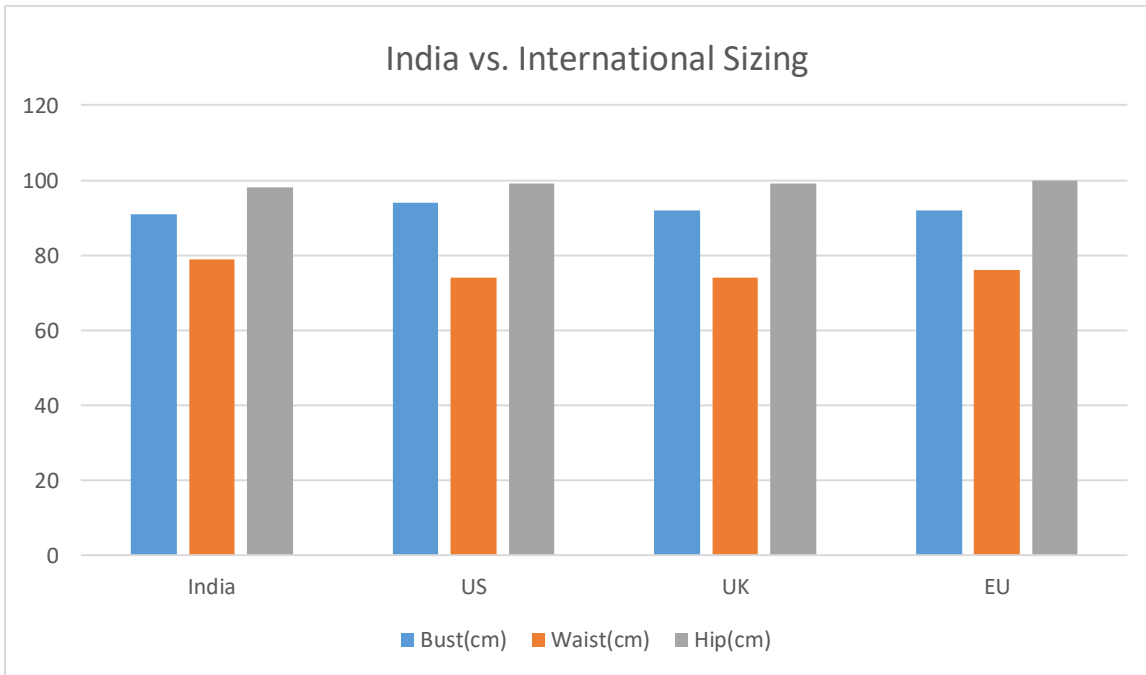


Note: Values are rounded averages from INDIA size and Mys Tyler datasets.

Table 2: Indian vs. International Sizing Equivalents (Women's Medium Size)

Region	Bust (cm)	Waist (cm)	Hip (cm)	Label
India (M)	91	79	98	M
US(M)	94	74	99	8-10
UK(M)	92	74	99	12
EU(M)	92	76	100	40

Source: INDIA size, US/UK/EU standard charts.

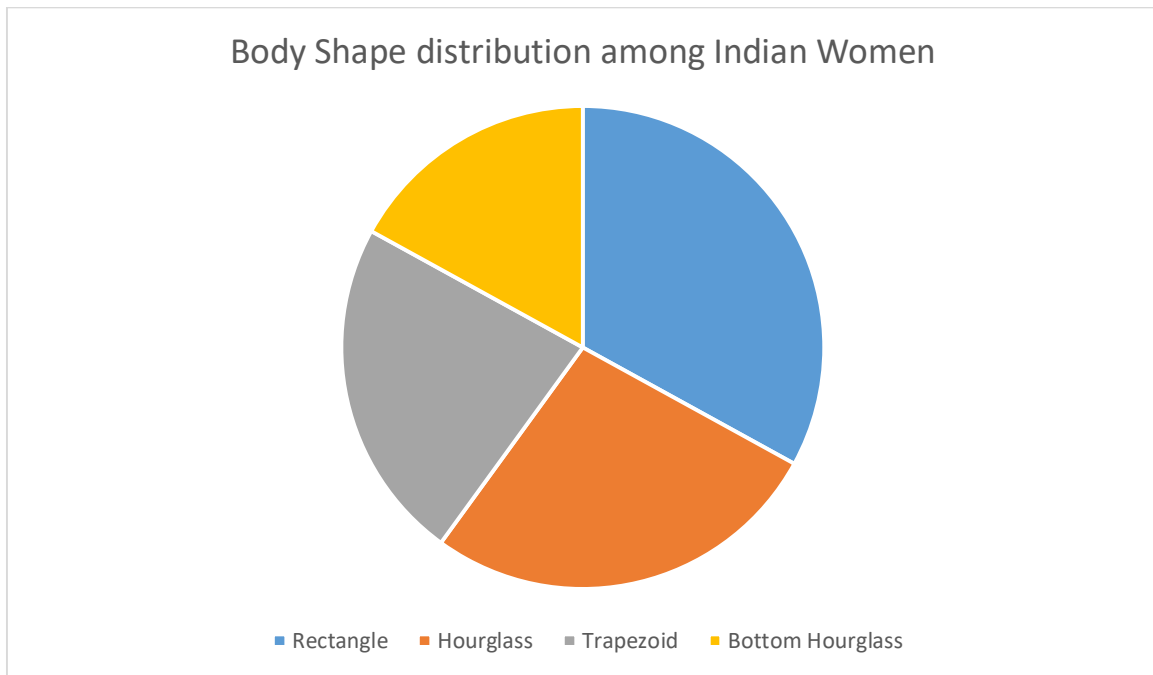


Body Shape Distribution

A nationwide clustering analysis identified four dominant body shapes among Indian women, with the following prevalence:

Table 3: Prevalence of Body Shapes in Indian Women

Body Shape	Prevalence (%)
Rectangle	33
Hourglass	27
Trapezoid	23
Bottom Hourglass	17



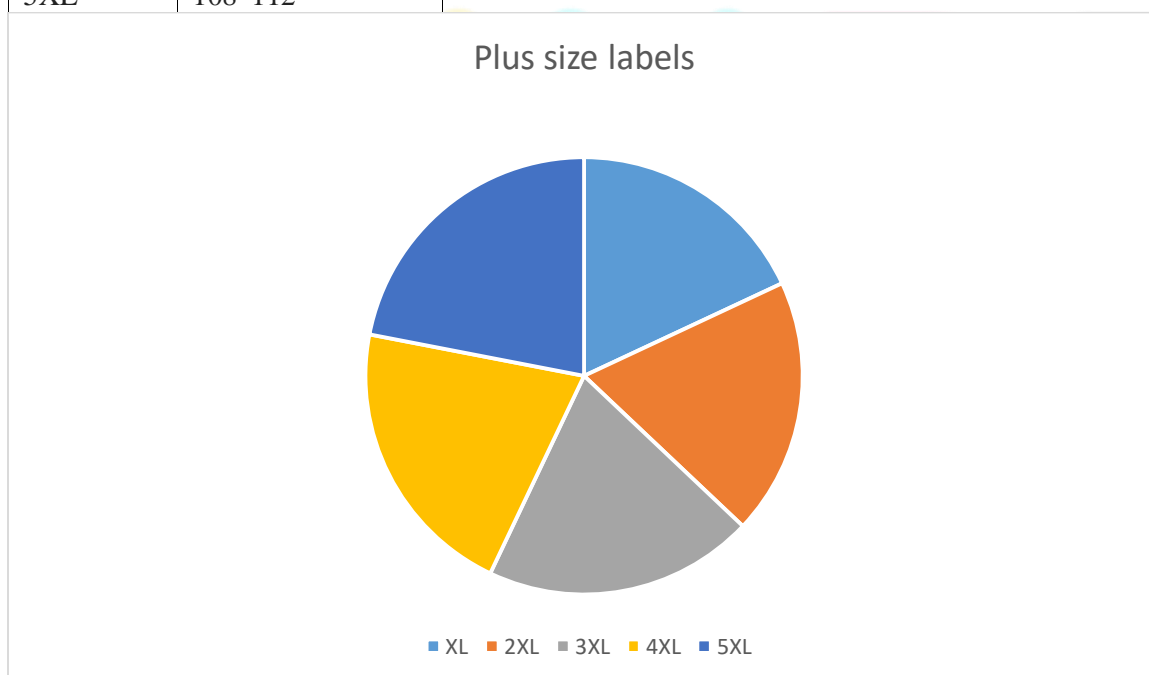
Plus-Size Representation

1 in 4 Indian women (25%) are considered plus-size (above US size 12 or Indian XXL), highlighting a significant market segment.

Existing Indian size charts for plus-size women show wide variability in key measurements, especially in waist and hip girth, leading to inconsistent fit.

Table 4: Example – Waist Girth Range for Indian Plus-Size Labels

Size	Waist Girth (cm)
XL	88–92
2XL	93–97
3XL	98–102
4XL	103–107
5XL	108–112



Source: Aggregated from major Indian brands and INDIAsize.

Key Findings

Indian women's average waist is larger relative to bust and hips compared to US/UK/EU standards, resulting in frequent misfit when using international size charts.

High variability in plus-size measurements across Indian brands leads to confusion and dissatisfaction among consumers.

Size labels (XS–XXXL) lack precision and do not account for body shape diversity, especially for plus-size and non-standard body types.

Return rates due to poor fit are as high as 20–40% in Indian e-commerce, underlining the urgent need for standardized sizing.

Statistical Implications

Cluster analysis supports the need for multiple sizing blocks based on body shape, not just linear increments. Standard deviation in waist and hip girth is higher in Indian women than in Western populations, suggesting greater diversity in body shapes and the necessity for more inclusive sizing systems.

Results

Body Shape Clusters

The analysis confirms the presence of four main body shapes among Indian women, with notable regional differences. For example, the Hourglass and Trapezoid shapes are more common in northern and western India, while the Rectangle and Bottom Hourglass shapes are prevalent in the south and east.

Measurement Gaps

A comparison of key measurements reveals that Indian women's bust, waist, and hip measurements do not align directly with the increments used in international sizing systems. For instance, the average waist-to-hip ratio among Indian women is significantly different from that of Western women, leading to inconsistent fit when international sizes are applied.

Indian sizing labels (XS–XXXL) lack the numerical precision of US and European systems. This results in confusion and frequent misfits, especially for women who fall between two sizes or have body proportions that do not match the "average" size.

International Comparison

Direct comparison with US, UK, and EU size charts shows that Indian women often fall between two international sizes, or do not fit any size category perfectly. This is particularly true for plus-size women, who face even greater challenges due to a lack of inclusive sizing options.

Discussion

The findings clearly demonstrate that the current sizing systems used in India are inadequate for the country's diverse female population. International size charts, when applied to Indian consumers, result in frequent misfits due to differences in body proportions and shape clusters. This leads to high dissatisfaction and return rates, particularly for plus-size consumers.

To address these issues, the Indian fashion industry needs to develop a standardized sizing system based on indigenous anthropometric data. Such a system should:

Use actual measurements from a representative sample of Indian women.

Incorporate regional and body shape variations.

Adopt precise numerical sizing (similar to US/EU systems) for better accuracy.

Regularly update sizing standards as body measurements evolve over time.

By doing so, the industry can improve garment fit, reduce returns, and enhance consumer confidence—benefiting both consumers and brands.

Conclusion

The absence of standardized, India-specific sizing systems is a major barrier to the growth and inclusivity of the Indian fashion industry. This research highlights the significant gaps between Indian women's body measurements and international sizing standards. The proposed framework for new sizing standards, grounded in anthropometric data, offers a path forward for brands, designers, and policymakers. As the Indian fashion market continues to expand, adopting data-driven sizing systems will be essential for delivering better fit, comfort, and satisfaction to millions of Indian women.

Bibliography

- Tiwari, M., & Anand, N. (2024). Comprehensive Analysis of Body Shapes in the Indian Female Population: A National and Regional Study. AHFE Open Access Conference Proceedings.
- Kumari, A., & Anand, N. (2023). Exploration of Indian plus-size women's ready-to-wear: problems and preferences. *Journal of Fashion Marketing and Management*.
- Cheersagar. (2023). US Women's Clothing Sizes: A Guide to Indian Equivalents.
- Superlabelstore. (2025). Everything You Need To Know About International Clothing Sizes.
- Webster, J., & Cornolo, J. (2013). Comparison of European and Asian Morphology. *Proc. of the 4th International Conference on 3D Body Scanning Technologies*.

