

## **Development of a Jeans Sizing System for Young Black Pear-Shaped South African Women Using a 3D Body Scanner**

Phumza SOKHETYE  
Durban University of Technology, South Africa

### **Abstract**

The South African pear-shaped Black women's jeans market has been confronted by fit dissatisfaction, although there is a growing demand for jeans. This study was approached from a viewpoint that jeans do not fit a large population of this consumer group and investigates the issues related to this problem. Local manufacturers and retailers currently use an adaptation of the British sizing system to suit their customer profile. Not much research however, has been carried out on developing a sizing system for the pear-shaped figure type, which makes up a sizeable portion of the population in the country. The intention of the study was to establish key variables for developing a jeans sizing system for Black South African pear-shaped indigenous women. A total of 60 Black women aged 18-35 years at the Cape Peninsula University of Technology were scanned for body measurements using a 3D body scanner. Body measurement differences were examined by using a quantitative research approach to establish the difference between waist and hip measurements. The findings revealed an average drop value of 39cm between waist and hip circumference for a Black pear-shaped figure, in comparison to a drop value of 24cm for a standardised sizing used by the clothing industry. It is recommended that the major stakeholders in South Africa conduct a national anthropometric study to update sizing systems, by using 3D body scanning technology, which provides accurate and consistent measurements of the human body.