Reclassification of South African Hourglass and Pear-Shaped Women for Apparel Sizing and Fit

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Abstract

Existing product lines in the fashion industry do not satisfy the unique body shapes of South African hourglass and pear-shaped women. The supply of correct fitting clothing for the South African hourglass and pear-shaped figures are challenging for the manufacturer, retailer and the consumer. Defining a typical pear shape from western ideology uses the drop values of bust and hip measurement being larger than the bust by at least 8 cm. Hourglass body is described as one with hip and bust measurements similar or very closely related. These descriptions does not isolate cases with large breasts, but still smaller than the hips by more than 30 cm. Efforts by industry players to become more body shape inclusive have not borne as much result as would have been anticipated. Only a limited measure of success has been achieved using waist-to-hip or bust-to-hip drop values, yet descriptions are not exclusive for either pear or hourglass body. Further, bust is frequently measured inaccurately. A woman's bust girth will vary from push-up to sports bra and is hardly considered when developing sizing systems. An additional problem with the adopted standard sizes is that a customer may fit a size 12 with one clothing retailer and yet the same size will not fit if the same customer buys it from a different retail store. Evidently, there is no universally accepted standardised sizing system for the unique African body shapes.

The aim of the study is to identify, describe and reclassify different forms of hourglass and pear-shaped women's body shapes in South Africa using 3D technology. The study will determine the different shapes and formats of pear-shaped women in South Africa and integrate the measurement data collected into proprietary measurement extraction software. Results from the proprietary measurement extraction software will be used to create virtual avatars to test fit in order to produce virtual 3D prototypes. All this will feed into the development of a size classification model for different forms of hourglass and pear-shaped women.

Secondary data will be used, supplemented with primary data where necessary in order to meet the saturation points for the type of study.

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