# The Rewards of User Experience Feedback on Developing Costumes That Last, a Swimsuit Example

## **Michele Santos**

CIAUD, Research Centre for Architecture, Urbanism and Design, Lisbon School of Architecture, Universidade de Lisboa, Rua Sa Nogueira, Polo Universitário do Alto da Ajuda, 1349-063 Lisboa, Portugal

## ABSTRACT

In a globalized economy, where the fashion market is highly competitive, changeable, and often disposable, there is a need to manufacture a product that seduces the consumer, not only for the appearance of the product but also for its comfort, usability, and performance. We defend that swimwear collections can be created, combining fashion design with ergonomics, fitting, usability, and anthropometry as the main factors, creating pieces that last and that suit the needs of its users. We will cover a case brand that kept the same model, collection after collection. These models were the result of careful initial investment, holistic and based on the user's experience. Trying to demonstrate that this initial analysis can represent an advantage in the medium/long term.

**Keywords:** Swimsuit development, User experience, User feedback, Fitting and design, Ergonomics

## INTRODUCTION

During the last two hundred years, one of the pieces of clothing that has evolved considerably is the swimsuit, varying in coverage, fabrics, usage and style. There is a lot of freedom and an immense array to choose from.

In recent years we have assisted to the proliferation of new swimsuit fashion brands, particularly in Portugal, a country with a large waterfront. Every year new swim bands appear and disappear in the market. What distinctiveness could make them last and differentiate them.

One student from the Master in Fashion Design at the Lisbon Faculty of Architecture decided to challenge the circumstances and tried a different approach. She decide to combine fashion design with ergonomics, fitting, usability, and anthropometry as the main factors, to create swimwear pieces that lasted and that suited the needs of its users. Most of these design characteristics are poorly addressed in many swimwear design.

## HOW IT BEGAN

Avelar (2018) student from the Master course developed a dissertation around the development of a swimwear collection based on ergonomics,

Table 1. Swimwear sizes. Adaptedfrom Avelar (2018).		
	Ν	%
L	7	22,6
М	12	38,7
S	5	16,1
XL	4	12,9
XS	3	9,7
Total	31	100

anthropometrics and usability. In the mentioned study, one of the swimsuits from the collection, FBS17-01, was tested by 31 different women, with different body sizes. We are enclosing a brief extract from that study:

The participants of the test were all female, with ages between 22 and 25 years old, 45% had 24 years. They were mainly Portuguese (83%) although 42% had foreign parents. Their height ranged from 1,54 cm and 1,75 cm, and their weight fluctuated between 38 kg and 85 kg giving us a wide range spectrum of different female body compositions. Breast size cups had a variation between 32A and 38C. Some of the larger sizes were measured after the test and were actually a cup E, F and G. Panty size run from XS to L. The majority of the participants used the swimsuit 3 or 4 times (61%) and chose to use size M (38,7%) (table1). Almost half of the sample usually uses a swimsuit (45%) or a combination of 2 or 3 pieces (54,8%) to bath. A small percentage indicated that it was hard to find suitable size swimwear, 26%. The more voluptuous respondents mentioned that the swimwear available on the market usually had no bust support for their size.

When questioned about the design details of the swimwear the evaluation of the testers was very positive, rating the design of the cleavage, back and leg deep as "how I like" in 81%, 94% and 90% correspondingly. The width of the straps was also rated by 87% as "how I like", except for the XL users, that considered the straps too narrow. The swimsuit's overall design was pondered as "appealing" and "very appealing" by 93% of the users.

On the usability test, the inquired mentioned that they felt "very secure" diving (65%), swimming (68%) and in the water with ripples (55%). The comfortable feeling was assessed as "very comfortable" on diverse activities like walking (55%), sitting (77%) and laying (71%).

The tested swimsuit model was designed to please its users, with delicate, simple and pleasant color and shape. The piece was developed to fulfil these three main objectives: to perform its function efficiently; to provide movement compatibility, anthropometric adaptation, comfort and safety; to be aesthetically appealing.

After this research, Avelar, decided to set up her business mainly focused on swimwear design. Starting as sustainable as she could, sourcing and producing locally, and, another rather weighty facet, growing in between her financial means. An added aspect of this venture was to prove if the previous science input will result in business success or even profit.

#### HOW IT IS GOING

Four years passed and we decided to conduct an interview with Avelar to follow up on the progress of the tested swimsuit model. Questioned about the still existence of the model FBS17-01 in their collection, her answer was totally affirmative. The sales growth of that model, in different color offers, has been in the order of 100% on the first year, and above 50% on the following years. That particular swimsuit model has maintained the same pattern and adjustment details, varying only in fabric and color in the last 4 collections.

Asked on how important is users experience feedback for the brand nowadays, the owner and designer, refers that is still very important. The contact with their users, mainly in sales events, and from media feedback, has been crucial for their development. "Customers come back more often when they are satisfied with their purchases, they do reach for our brand. We have heard comments like this – it is the only swimsuit that offers support and also an appealing design."

Besides the FBS17-01 other models have been implemented in the past collections, with the same foundation knowledge base: fitting, support versus size, accommodation of different anthropometric profiles, it is the same. Avelar still takes time to develop and test her new design ideas, because she recognizes its value, Nevertheless, the FBS17-01 keeps being the preferred by the users.

Avelar has sold a pleasant number of the analyzed swimwear model. Has expanded the collection to new models and has also ventured into other types of clothes outside the swimwear design universe.

#### CONCLUSION

The initial time spent developing and testing the key model of Avelar's band was crucial for her future success and for her steady and solid implementation on the Portuguese swimwear market. User experience has given its rewards to this small brand. The holistic involvement of design development, fitting design, ergonomics and anthropometrics were revealed as a major input and differentiation among so many brands.

The fashion pace is known for being continually fast with the consequence challenger to find the time to dedicate to research. We are living in a time of reset, rethought, rebuilt of the fashion industry, and this seems a good example approach to reflect upon.

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