

Getting a better understanding of pillows on sleeping comfort

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Do we truly understand the impact the pillows have on sleeping comfort? Is there a way to get better understanding?

Pillows have an impact on sleeping comfort. By creating a better understanding for **IKEA**, the development of future products will be made easier.

In this master thesis, a *customer study*, a *customer survey* and *simulations* were done.

By doing a multiple regression analysis for the customer study, it was found that the ergonomic pillows were more likely to have a pattern of opinion in regards to the customer's anthropometry and habits.

In the customer study it was found how unpredictable a customer's habits are. For example, about 45% uses two or more pillows. Who knew on forehand that there are sleepers that use five pillows? It is important to be aware of these kind of things when doing simulations.

The simulations showed that for the specific mattress/pillow combination, that a higher BMI has a misalignment of the spine. Through measurements and spine alignment, it could be seen that some of the ergonomic pillows

are better suited than others, for side sleeping position and dependently on which BMI. But the simulations will not always correlate to the customers opinion. Which shows how subjective a pillow choice truly is.

There are not that much research around pillows and sleeping comfort. This thesis will hopefully give a better understanding of pillows for **IKEA**. Getting a better understanding of pillows means creating pillows that may help the customers sleep better.

Other than getting a better understanding of pillows, these steps can be applied in other uses where customer studies, surveys and simulations are present. It is not purely a thesis about pillows but also the methods that are used. So, for anyone consider using these methods, this thesis could be of use. Both the mistakes and the successes of this thesis should be taken into account. It also makes one wonder if simulations may ever be a better choice than spending more time on doing a customer study.

No matter if you find the mattress or the pillow as the most important part of sleep comfort, there is no doubt that pillow does make an impact on comfort. The question remains though, how subjective is a pillow choice?