Improving the first impression of MALM - one of the bestselling IKEA-dressers

Deciding whether or not to buy the popular MALM-dresser, the first impression of the furniture is of great value for the IKEA consumer. Factors as delicate as sound and vibration impacts the perceived quality of the end consumer, but with simple design adjustments as preventing wheels from rotating, the furniture may be evolved to a new level.

Two design solutions have been recommended regarding the improvement of the roller slide, a sliding mechanism integrated in the MALM-dresser. The main function of a roller slide is to enable opening and closing of the drawers. As simple design adjustments as preventing the rotation of two of the plastic wheels advances the customer experience. But which factors affects the customers' subjective perception of a furniture? It was concluded, based on a survey performed by IKEA Components, that unpleasant noise and instability in terms of wobbling are the two main factors disturbing the perceived quality of MALM.

Together with IKEA Components AB, a study of the roller slide was initiated with the aim to improve the perceived quality once the roller slide is mounted in the highly popular IKEA dresser called MALM. The roller slide is a low-cost solution and consists of four slides, shown in figure 1, where each slide consists of a metal plate and a plastic POM-wheel, which is attached to the plate by a rivet and a washer. Two slides are mounted on the drawer and two on the cabinet of the MALM-dresser.

In an early stage of the study, it was concluded that designing a completely new solution would be too expensive and the focus was therefore placed upon adjusting the current design. To investigate which changes of the design that improved the perceived quality, simplified prototypes representing a number of modifications of interest were manufactured at the IKEA prototype workshop.



Figure 1. A roller slide set consisting of four slides.

Based on quantitative and qualitative tests, it was concluded that some adjustments were better than others and it was pin pointed that non-rotational wheels on the drawer slides improved the customers' experiences. One of the concepts recommended to IKEA Components consisted therefore of the current roller slide where the drawer wheels are unable to rotate. The other recommended concept is a development of the previous mentioned concept where the non-rotational wheels have been replaces with plastic blocks, seen in figure 2.

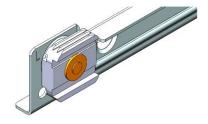


Figure 2. Plastic blocks replacing the drawer wheels.

Generally, the study resulted in a broad investigation where potential, as well as less potential improvements of the roller slide were detected. But with the two recommended concepts, unpleasant noise and wobbling are a memory of the past and the already bestselling MALM-dresser will become even more popular.

Master Thesis: Development of Sliding Mechanism for IKEA-Furniture

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