

# Kansei Modeling for Delight Design based on 1DCAE Concept

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It is crucial to produce emotional products (delight design) in addition to must design and better design in the future industry as shown in Figure 1. Conventional design tools like CAD systems lack functionalities to support the design of such products.

Though such support tools as Kansei design methodologies are available to some extent, they are still too specific to be applied to common design processes. Thus there are strong demands for the development of technologies for supporting upstream design work flow dealing with delight aspects based on Kansei and seamlessly integrating it to the downstream embodiment design processes.

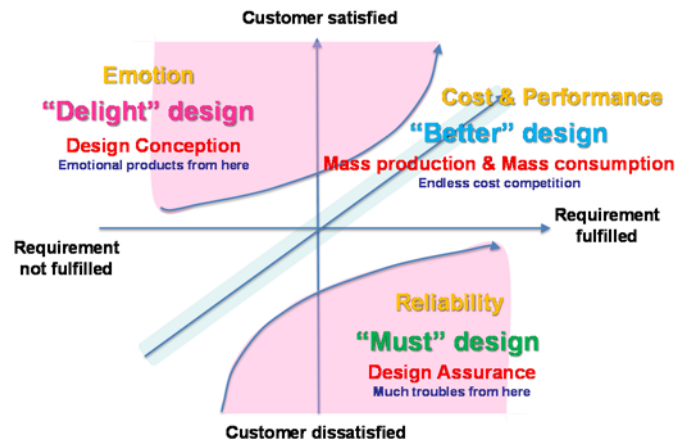


Figure 1. Three kinds of design

As a solution to the above issue, we are proposing the development of a design framework called “1DCAE”, which can be applied to the early design stage of product development including the conceptual design and functional design. The 1DCAE concept can be applied not only better design, must design, but delight design. Here we introduce how 1DCAE concept applies to delight design and its core technology of kansei modeling.

We introduce the kansei modeling based on 1DCAE concept to realize delight design. The technology to capture the kansei is defined as the kansei modeling and the resulting model as the kansei model. 1DCAE is done by using the so-called 1D tool based on Modelica language. Kansei modeling is applied to the hair dryer which includes the physical part and the kansei part. Kansei model is built by using the kansei database. In case of dryer, air flow, sound, and handling are related to kansei.

Designers perform the delight design by using 1D tool with kansei model. They can check the degree of attainment for their ideas by calculating the attractive metric on 1D tool. Results of delight design obtained in this process is sent to the mechanical design and circuit design to perform the tangible design.

## References

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