

2 Definition of Customer Co-Design

“Designing and developing anything of consequence is incredibly challenging.”

– Jonathan Ive

Before diving deeper into customer co-design, it is important to define the concept. In order to do so, the inherent notions of *design* and *co-design* are introduced before a final definition of customer co-design is presented, which will serve as the basis for the entire thesis and its multiple empirical studies in the mass customization industry.

The notion of *design* refers to a specification which contains the fundamental information to construct or execute the desired artifact. This artifact may exhibit a plan for a new service, an object such as a product or a complex system, to deliver entire customer solutions. Another intuitive definition is delivered by Baldwin and Hippel (2011) who state:

“A design is a set of instructions that specify how to produce a novel product or service.”²⁸

Further, the authors deliver a practical analogy by comparing the concept of design to following a recipe. A cooking recipe typically defines the requirements, i.e. ingredients and instructions, for producing a tasty meal. As noted previously, the notion of *design* may be applied to products, services or even complex systems. Within the mass customization industry, however, the notion of design is mostly to products. The terms *design* or *product design* are frequently used interchangeably. It needs to be noted here that the present thesis follows this stream and focuses on the notion of design as the set of instructions to customize a specific consumer product, i.e. shoes or t-shirts.²⁹

Based on the latter understanding, Sanders and Stappers (2008) deliver a good entry point into the development of the co-design concept with their publication on “Co-Creation and the new landscape of design”.³⁰ They argue that co-design refers to a process of collective creativity, in which ideas and thoughts are shared between at

²⁸ Baldwin and Hippel (2011, p. 9)

²⁹ Kamali and Loker (2002)

³⁰ Sanders and Stappers (2008)

least two people to design a product, as previously noted. Co-design therefore can be regarded as a particular instance of the superior concept of co-creation. Co-creation is frequently attributed to the scholars Prahalad and Ramaswamy (2004), who argue that the future of business competition is based on successful processes of co-creation and thus co-design, where customers are provided with unique value.³¹ This idea is also closely related to the concept of interactive value creation as it is introduced by Reichwald and Piller (2009).³² Prahalad and Ramaswamy (2004) state:

*"The meaning of value and the process of value creation are rapidly shifting from a product and firm-centric view to personalized consumer experiences. Informed, networked, empowered and active consumers are increasingly co-creating value with the firm."*³³

The roots of co-design are located in the school of participatory design dating back more than 40 years, as Sanders and Stappers (2008) argue.³⁴ Hence co-design is actually not a new at all. The authors state that already at that time, various researchers recognized the need to combine the know-how of the future users of a product with the expertise of professional designers in order to improve the performance and accuracy of development efforts. The resulting discussion on *user participation in design* or *participatory design* finally led to the concept of co-design, which elaborates on the same basic idea, although the years of ongoing scientific discussion have constantly and slightly changed the facets of the discussion.

Thereby 'co' in the notion of co-design can be interpreted from two perspectives. The first perspective may imply the misleading understanding that two or more designers, i.e. people who are specifically educated in design, collaborate in order to reach a common goal, e.g. a new product design.³⁵ The second, well-established perspective however, implies the understanding that co-design is a process in which people and users who are not specifically trained in design together with professional designers collectively ideate, develop and create new value. Depending on the applied vocabulary and discipline, the 'co' in co-design is frequently interpreted as being adopted from various different but closely related notion-families beginning with 'co', such as collective, cooperative and collaborative.

³¹ Prahalad and Ramaswamy (2004)

³² Reichwald and Piller (2009)

³³ Prahalad and Ramaswamy (2004)

³⁴ Sanders and Stappers (2008, p. 7)

³⁵ Sanders and Stappers (2008, p. 6)

However, originally it stems from the Latin prefix 'co', which exhibits the meaning of together, mutually or jointly and as such expresses the relation of two subjects, i.e. co-designers, or objects, i.e. co-occurrences.³⁶

Having introduced the basic notions of *design* as well as *co-design*, the definition of *customer co-design* can be introduced. Adding the term customer implies the fact that the co-design process is carried out together with the customer who will finally receive and use the result of the co-design process, i.e. the product. The definition is therefore taken from Sampson and Fröhle (2006) who define customers

*"...as the individuals or entities who determine whether or not the service provider shall be compensated for production"*³⁷

This is for example the case in the mass customization industry, where each singular customer enters the co-design process provided by the company to design his own custom product. Hence the customer actually acts as a co-designer of his own product, even though he is not trained as a professional designer. Therefore, taking all these aspects into account, the following definition can be finalized:

Definition: *Customer Co-Design describes a development process in which the customer and provider collectively ideate, elaborate and create a design specification for a product, which is purchased by the customer.*

The latter definition closely relates to the definition as it is stated by Tseng and Piller (2003):

*"Customer co-design describes a process that allows customers to express their product requirements and carry out product realization processes by mapping the requirements into the physical domain of the product."*³⁸

However, the definition elaborated in the box above includes the facet of creation and thus creativity, which is a fundamental element of co-design activities, as outlined at the beginning of the chapter. Hence on the basis of this definition, the subsequent chapter introduces the entire structure of the thesis and explains its composition.

³⁶ Stoller-Schai (2009, p. 34)

³⁷ Sampson and Fröhle (2006, p. 332)

³⁸ Tseng and Piller (2003b)

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