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## User-driven customization and customer loyalty: A survey

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**Abstract**

For companies, customer loyalty is one of the main goals to ensure long-term success. However, it is not completely resolved which mechanism stimulates customers to repurchase the same product or same brand respectively, repurchase being an important aspect of loyalty. The customer's level of satisfaction with a product is an adequate indicator for customer loyalty, but is seen as not fully sufficient. Rather, the emotional attachment of a customer with a product or brand may be crucial for his loyalty. Amongst others, the emotional attachment or sentiment of connection can be encouraged through the active participation of the customer in the development and configuration process of the product in terms of a co-creation. The customer can be put in the position of a co-designer throughout the whole development and buying process. Yet, no literature was found investigating whether customization in the use phase of a product -as a post-purchase configuration- equally leads to an emotional attachment and renders the product a personal item. Supposedly, a customized product triggers customers to 1) keep a current product longer and therefore postpone the moment of perceived obsolescence and 2) rebuy the same product or brand respectively significantly more often.

To respond to the corresponding research questions, a questionnaire was developed and distributed online via email and popular social media platforms. Subject to the questionnaire were smartphones as everyday objects. The participants answered to question items regarding their customization habits of software as well as hardware components, their usual repurchase frequency of smartphones and preferred product/brand. The data was analyzed for statistical relations between customization and repurchase behavior; implications for product life-cycles and potentials for producing companies were discussed.

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**1. Introduction and Motivation**

Establishing customer satisfaction and customer loyalty are among the main goals of companies in order to ensure competitiveness – that is their economic viability. One aspect influencing the above mentioned goals is the customization of products [1]. Customers widely wish for products (or services) which are tailored exactly according to their needs, in the B2C as well as in the B2B market [2,3]. Customization, i.e. offering an individual product for the individual customer is therefore not just a trend, but becoming an inevitable premise for companies in order to meet the market demands. This development raises industrial challenges, e.g. the necessity of offering a highly diversified product portfolio, which in turn is implying flexible manufacturing technologies [4]. In order to

tackle these challenges, customer centric development paradigms such as mass customization, personalization or even co-creation between supplier and customer have been observed [1,3]. Besides their increasing demand for individualization, is it noticeable that products become obsolete before reaching their technical life expectancy, resulting in shorter product use time on the customer side, as well as shorter product life cycles on the company side.

However, society's ecological awareness and the issue of waste have been increasing simultaneously throughout the last decade(s) [5,6], creating a dilemma for companies: They have to launch new products frequently to enthruse their customers, but convey ecological awareness and consider scarcity of resources at the same time. Questions of downward compatibility or the adjustment of products post-purchase are

of interest in order to respond to customer needs as well as ecological standards.

Integrating these aspects of customer requirements, i.e. the requirement of constant and individualized need satisfaction throughout the whole use-phase of a product combined with ecological awareness of customers resulting in a wish for durable products, the following issue will be subject of this research: Is there a correlation between the customization of a product in the use phase by the customer and the repurchasing behavior, namely the length of the usage phase and brand loyalty? This issue was basis for an empirical study of consumer durables.

The paper is structured as follows: First, the state of the art will be illustrated in section 2, leading to the present research questions. In section 3, the research methodology is outlined, followed by the presentation of results and a discussion in section 4 and the conclusion and outlook in section 5.

## 2. Customization, customer satisfaction and loyalty

Henceforth, the concepts of customer loyalty and customization are going to be introduced followed by an overview of research findings to date regarding the relation between these concepts.

Customer loyalty refers mainly to the cross-buying or repurchasing behavior [7,8]. With regard to customer retention and securing sales, it is most relevant to elaborate which preconditions explain the phenomena of loyalty towards a product or brand [9]. In literature, the concept of customer satisfaction is widely used to explain loyalty. Customers who are satisfied with a product or service throughout the use-phase are thus more likely to repurchase the same brand [10]. In the context of customer relationship management (CRM), other factors such as customer loyalty programs or the availability of products in terms of an exclusive supplier are additional explanatory variables [9,11].

Customization, also called personalization, refers to offering a product or service, which is tailored to the individual customer's needs and preferences as opposed to staple articles. Customizing products is not a recent invention, one might think of custom-fit suits which have been tailored for centuries. However, developments in manufacturing systems enable the mass production of customized products. Moreover, the increasing digitalization and engagement of customers in Social Media support the dialogue between companies and customers in order to discover individual needs and wishes [11].

Examples of customization are the selective placement of product propositions for individual customers on webpages e.g. Amazon (also known under the term predictive personalization) or the possibility to configure products during the buying process by the customer, as it is possible for automobiles or clothing items [12]. In a broader sense, the latter example refers to the participation of the customer within the design process.

In this context, the relation between the customization and customer satisfaction, customer loyalty as well as brand assessment has drawn increasing research attention. Customization – especially when customers play an active role

– is of special interest concerning satisfaction and loyalty. Through customization, products or services inherit a personal character for the customer; the *emotional bond* is therefore stronger [11]. The assumption is, that customized products increase satisfaction and thus indirectly also loyalty, i.e. repurchasing behavior.

Studies support this statement: Concerning services it has been discovered that personalized offers correlate with a higher level of satisfaction as well as an increased customer loyalty [2,13,14,15]. In the banking industry, two studies underline the effect of customization on customer loyalty and customer “e-loyalty” respectively in the case of online-banking as corresponding term [16,17].

However, literature suggests, that research to date is limited to the effects of customization within the development or purchasing process on satisfaction and loyalty. Also, the focus lay on service customization and e-commerce. Yet, customer requirements evolve during the use-phase, i.e. the relevance of specific product features in the use-phase can differ significantly from the relevance of features at the moment of purchase [18]. Additionally, new needs or requirements can occur from a customer's perspective, leading to either the perception of *obsolescence* of the current product in use [19] or the need for user-driven adjustment of the product in order to overcome the lack in need satisfaction. This is especially challenging for physical products, which cannot be modified easily by the producing company post-purchase.

Assuming that a post-purchase customization carried out by the customer equally affects customer satisfaction and loyalty and equally strengthens the emotional bond between customer and product, the research questions are stated as follows:

1. Does a user-driven customization in the use-phase affect the length of the usage phase?
2. Does a user-driven customization in the use-phase affect the product and respectively brand loyalty?

Consequently, the research methodology will be illustrated, succeeded by the results and interpretation.

## 3. Research Methodology

In order to examine the research questions from Section 2, an empirical research was conducted. To this end, a questionnaire was developed and distributed online. The questionnaire consisted of 14 items and comprised of free text fields as well as lists of predefined answers (radio buttons) as response options. Out of 227 people who started, 90 participants completed the questionnaire, resulting in a rate of response of ca. 40%. Participants took in average 14 minutes to complete the questionnaire. The objects of interest were smartphones. Smartphones are everyday objects, which customers can customize to a certain degree and can use for different purposes. Furthermore, it was assumed that customers most likely remember the last models they have owned, which does not necessarily hold for e.g. domestic appliances.

In accordance with the research questions, three major aspect were addressed in the questionnaire. First, concerning the matter of loyalty, participants were asked to name their

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