

Virtual customer integration and innovation resistance theory

[Business](#), [Marketing](#)



The important theoretical background is presented, including what VCI entails and what is meant by NPD. Furthermore, a brief overview of the innovation re-sistance model, the five types of adopters, and active and passive innovation resistance are provided.

Virtual Customer Integration

Virtually integrating customers into the process of developing a new product has become immensely important for companies when it comes to increasing the success rate of launching a new product on the market (Chesbrough, 2003). Especially in today's climate, in which one can be online anytime and anywhere, the Internet has become an essential tool for companies to integrate the immense numbers of customers into their NPD process who had previously been anonymous (Urban and Hauser, 2004; von Hippel und Katz, 2002). People who take part in VCI are often characterised as highly innovative and as having a high degree of know-how concerning a specific type of product or product category (Kozinets, 2002; McAlexander, Schouten, and Koenig, 2002). This finding aligns with the motives of people taking part in VCI found by Füller in 2006 and 2010. VCI participants are mainly motivated by aspects such as curiosity, intrinsic interest in innovations and the urge to show their own ideas (Füller, 2006; Füller, Faullant, and Matzler, 2010).

VCI can be differentiated into the traditional 'old' customer integration and the 'new' VCI that goes beyond simple opinion sharing. The old version of customer integration consists of asking consumers for their opinions, needs or wish-es, whereas new VCI methods ask consumers to actively take part in

contributing their own ideas about a new product, evaluating prototypes or solving problems related to an innovation (Lilien et al., 2002). There is thus a distinction between 'old' and 'new' VCI. Old customer integration methods, such as suggestion boxes or simple online surveys, are compared with 'new' methods such as virtual product testing, in which customers actively share their opinions and help a company to create a new product. Ultimately, companies rely on customers who are willing to take part in VCI. However, researchers have found that many people feel some kind of resistance when it comes to innovations or change in general (Sheth, 1981; Osgood and Tannenbaum, 1955).

New Product Development Process

VCI can take place in many stages of a company's innovation process. The so-called NPD process, which can also include services, is often segmented into five stages, both in theory and practice; these stages are the ideation phase, concept generation, product design, product testing and product launch (Ulrich and Eppinger, 2003; Urban and Hauser, 1993). Companies use methods such as online surveys or virtual communities in the first two stages (ideation phase and concept generation) of NPD in order to receive viable feedback about customers' needs or ideas. In the later stages of NPD (product design, product testing and product launch), firms generally use more qualitative techniques in contrast to the quantitative methods used in the early stages (Sawhney, Verona, and Prandelli, 2005). Techniques such as virtual product testing or prototyping are deployed in order to attain the best product or service possible and thus reduce the risk of market failure (Urban and Hauser, 1993).

Innovation Resistance Theory

It is obvious that innovations, whether incremental or radical, bring at least some degree of change, which could create a barrier for consumers to accept them. The specific source of these barriers can be manifold. Ram first addressed the idea of a three-dimensional innovation resistance in 1987, describing the reasons why people reject innovations including innovation characteristics, user characteristics, and characteristics of propagation mechanisms (Ram, 1987).

In 1989, Ram and Sheth enhanced this theory by adding two major barriers that result from unfavourable changes caused by the innovation; these are functional and psychological barriers. Functional barriers can be divided into usage barriers, value barriers and risk barriers, whereas psychological barriers are defined as tradition barriers and image barriers. The latter describes any cultural change that derives from the innovation. If these changes conflict with established norms and traditions, innovation resistance arises. Image barriers may come from the product class itself, the industry to which the product belongs or the country where the product is manufactured. If any associations are contrary to a consumer's stereotypes about any of these aspects, innovation resistance may emerge. (Ram and Sheth, 1989) Considering the question of why consumers do not want to engage in VCI, the barriers addressed by Ram and Sheth could be driving factors for a failure to participate in the NPD process. The relevance of Ram and Sheth's findings is clear from the fact that, although they are from 1989, they are still referred to by Talke and Heidenreich (2014).