# Chapter 70 Consumer Creativity as a Prerequisite for the Adoption of New Technological Products: Looking for Insights From Actor-Network Theory

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### ABSTRACT

Creativity is often conceptualized as actions and outcomes related to the creation of novel and useful ideas within the context of the development of new products. It is usually positioned in the activities of designers who play the role of "the creator". In this paper the authors suggest "changing the subject" to consumers by claiming that creativity plays a key role in the adoption phase when they attempt to address their needs and preferences by appropriating the use value of everyday technological products. They emphasize that the product value perception which makes a potential consumer buy is the result of this consumer's own activities and efforts. Thus, the intensity of consumers' creative activities becomes a critical adoption factor. The authors suggest that activity-based approaches such as actor-network theory and activity theory could be quite appropriate in studying the dynamics and the design of new product adoption, and offer a comparative analysis indicating that actor-network theory has a greater potential to contribute to the interplay between consumer creativity and technology adoption research.

### **1. BROADENING THE PERSPECTIVE**

Innovation has been defined as the successful commercialization of an invention (Schumpeter, 1934), which can be seen at the point in time when an outcome of new product development has been launched

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on the market and the first transactions have begun (Akrich, Callon & Latour, 2002a), i.e. when consumers have started buying it. Denning & Dunham (2010), however, stress that successful innovation cannot be concluded until the intended users have actually adopted the product and made it part of their lives. They suggest a definition of innovation as the adoption of a new practice by a community. With such a definition the focus of innovation shifts from invention to adoption making consumers a key factor in the innovation process.

As pointed out by Cropley and Cropley (2012), the innovation associated with a new product or process "needs to be accepted by customers, regardless of any other virtues it has, before it can be regarded as successful" (p. 37). From a managerial perspective, this would imply that, when working with new product development and innovation, the process of adoption needs to be adequately taken into consideration. There is a need of a new paradigm in managing innovation since organizations invest millions in programs focusing on fostering creativity and innovation but the vast majority of innovation initiatives fail (Denning & Dunham, 2006), i.e. they do not meet their financial objectives or simply do not reach their target audience. Our hypothesis about one of the major reasons for this failure is the lack of proper understanding of the relevance of adoption practices as part of the innovation process and the extent of the struggle and creativity on the part of the ultimate users in adopting new products. Our emphasis on consumer creativity in the adoption of new products does not intend to undermine the efforts of designers, innovators, or entrepreneurs; it is just an attempt to locate one of the major sources of the problem and point out a solution. The solution includes the repositioning of the creativity concept with a focus on consumers' adoption efforts.

Creativity in relation to new product development has been studied extensively. The dominant understanding of creativity focuses on novelty and usefulness or appropriateness of a given product (George & Zhou, 2001; Klausen, 2010; Sullivan & Ford, 2010). Such understanding misses the important aspect of *appropriation as a creative effort* made by the ultimate recipients of a product, an aspect that is becoming increasingly relevant within the context of the increasingly complex technology-driven everyday life. In this paper we emphasize the gap between the total value built in a product as the absolute benefit that could be potentially delivered to consumers as a result of designers' creative actions and intentions, and the consumer's perspective of that value which would require taking into account the extent to which their creative efforts have allowed them to appropriate it. This potential difference between the *total value* of a product and its *real (perceived or use) value* will become apparent especially when an intended user interacts with a product in a real life setting.

Creativity within firms is often viewed as a first step in the process of innovation (Amabile, 1997), and therefore creative ideas of individual employees are considered as a "key precursor to innovation" (George, 2007, p. 441). It should be emphasized however, that creativity is highly relevant throughout the entire innovation span including (i) the initial idea and the translation of an invention into a product, where the designers' creativity has a direct influence on the final outcome, (ii) the commercialization of the product where the consumers' creative efforts influence whether or not a transaction will take place, and finally (iii) the actual use of the product where users' creativity influences the adoption of the product. The point of this emphasis is to underline that, *first*, there is a change of place, time, and creative agent when moving from the fuzzy front to the messy back end of the innovation span and, *second*, consumer adoption is a key component of the innovation process. Thus, the main contribution of this paper is the articulation of the need for the emergence of a new paradigm; one that conceptualizes the dialogical struggle in the encounter between a product and its individual recipients during the adoption process as consumer creativity.

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