

# Chapter 14

## Action–Oriented Framework for User–Driven Technology Innovation: A Co–Creation Perspective

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### ABSTRACT

*User involvement is crucial for designing technological products with “real-world potential” in the digital transformation realm. The existing tacit consensus on user-driven innovation suggests users’ proactive role in information sharing and rather a passive role of firms restricted mainly by users’ information receiving. However, the importance of translating users’ information into concrete technological product features and integrating new users’ knowledge in the product development process is salient for firms. The present research theoretically derives the action-oriented framework based on the adapted linear communication model and empirically tests it in the context of technological product development within a startup. The study contributes to innovation management literature and co-creation research stream by enlarging understanding of the role of a firm in user-driven innovation. Furthermore, the study provides the action-oriented framework “listen-think-do” that enables the transformation of valuable users’ information into firms’ actions and new product development.*

### INTRODUCTION

Digital transformation (DT) is identified as one of the major phenomena changing society and business in the near and long term future (Kraus et al., 2022; Parviainen, Tihinen, Kääriäinen, & Teppola, 2017). DT promises to transform how organizations operate and deliver value for customers (Kraus et al., 2022; Vial, 2019). In particular, DT deepened the new level of customer involvement in the innovation process (Kraus et al., 2022; Gassmann et al., 2010). Accelerated by rapidly evolving digital technologies, DT enables valuable knowledge to be broadly disseminated and easily accessed (Von Hippel; 2005; Barrett

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et al., 2012; Fitzgerald et al., 2014; Parviainen et al., 2017). Moreover, the traditional approach to innovation characterized by the passive or consuming role of users has been changed (Zaitsava et al., 2020). Now the role of users is to be active innovation contributors throughout the whole path of the innovation process (Gobble, 2016; Curley and Salmelin, 2017; Baldassarre et al., 2017). Users are at the very core of the creation of new solutions (Baldassarre et al., 2017). Also, DT is characterized by prompt changing tastes of consumers, new customer expectations, shortening the life span of products, and puzzles to develop successful market solutions with real-world application potentiality (Blank, 2013; Hilbolling et al., 2021). It becomes extremely challenging for organizations to innovate when users' needs are not clear, many technological alternatives exist, and younger and more adaptable competitors step in (Nambisan et al., 2017; Sebastian et al., 2017). The need for managerial approaches that will help to discover and translate users' expectations into well-articulated knowledge is salient (Sebastian et al., 2017).

Specifically, co-creation and user-driven innovation (Von Hippel, 2007; Baldwin and Hippel, 2011; Afonso et al., 2012; Piller and West, 2014; Ramaswamy and Ozcan, 2018) respond to the challenge of developing successful products with a "real-world" potential (Laursen and Salter, 2006; Kohler et al., 2009; Gobble, 2016). In the co-creation paradigm, an organization and its (potential) customers interact to create valuable services, products, or customer-focused benefits (Jain et al., 2021; Ramaswamy and Ozcan, 2018). User-driven innovation is an inseparable part of this process, as it enables meaningful innovation driven by users' needs and insights (Von Hippel, 1976; Baldwin and von Hippel, 2011). Communication and interaction between firms and users to share unique knowledge and continuous and meaningful interactions are especially salient in user-driven innovation (De Moor et al., 2010; Piller and West, 2014; Baldwin and von Hippel, 2011; Roszkowska-Menkes, 2017). The importance of translating users' information into concrete technological product features and integrating it into the product development process cannot be underestimated (De Moor et al., 2010; Von Hippel and Euchner, 2013; Baldassarre et al., 2017).

While users' involvement and sharing of knowledge are crucial for creating successful solutions with real impact (Kohler et al., 2009; Piller and West, 2014), the current user-driven innovation view lacks research on the firms' ability to grasp communicated unique users' knowledge and turn it into effective actions. So far, the existing research on co-creation and user-driven innovation focuses mainly on users' involvement and feedback as such (von Hippel, 2009; Lettl, 2007; Baldassarre et al., 2017; Jain et al., 2021), paying attention to methods for user participation and co-development of new products (Dell'Era and Landoni, 2014). With minor exceptions (Päsilä et al., 2013), this view suggests the proactive and collaborative role of users in information sharing and rather a passive role of firms as information receivers.

To address the gap, the present research theoretically derives the action-oriented user-driven innovation framework based on the adapted Linear Communication model. It empirically tests it in a startup context. The high-tech startup under investigation aimed at employing co-creative practice to inform a new Augmented Reality solution development as the first trials failed. The paper provides an empirically tested action-oriented framework, "*Listen-Think-Do*" for co-creation that enables the transformation of valuable users' information into firms' actions.

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