Deploying a telerehabilitation service innovation: An early stage business model engineering approach

Abstract

The objective of this study was to design a viable business model for deploying a telerehabilitation service innovation in the R&D deployment phase. In the paper the business model engineering approach used to conceptualize the deployment of this telerehabilitation service is described, analyzed and evaluated. An iterative, multi-method and combined qualitative and quantitative action design case study approach was used for developing the business model and related value network of the telerehabilitation service. Insights from surveys, desk research, expert interviews, workshops and quantitative modeling were combined to engineer the business model and consequently refine it in three design cycles.

The calculation method used abstracted from actual value and revenue stream designs within value network structures. It resulted in an overview of value network roles with the most expected financial benefits and costs related to introducing a new service, which is crucial information for designing viable value network structures.

Our method led to critical deployment insights that would otherwise be unknown or learned at a much later phase of the development process. Improving the viability and feasibility of business model and value network designs in an early deployment stage may lead to substantial savings in costs and resources: seeing the initial value network structure fully implemented and then fail in the marketplace is a much more expensive and time consuming validation method.

We conclude that the first results of our method are encouraging: by using the method the viability of the business model and value network design could be further validated and improved in each of the subsequent development steps. Therefore we suppose that – also already in early stages of deployment processes – the viability of a business model and value network design can be tested and improved by integrating insights from qualitative and quantitative business model analysis in iterative action design cycles.