Decision Methodology for Planning Product-Service Systems

Abstract:

One challenge for product development is the change from solely tangible products to more immaterial goods, such as services. This requires offering more than just a product, but opens new business models on the other side. This deferral is called the product-to-service-shift. Combining products and services to a product-service system (PSS) enable companies to better meet customers’ requirements or to increase customer connectivity and to focus on own core competencies. Since PSS are more complex and more interrelated than stand-alone products, developing PSS requires different methods and frameworks. The planning phase for PSS is relevant for the market success, as most important decisions are made in early stages of product development. For this reason, planning PSS requires special methodical support to enable reliable decisions. In this paper, we built a decision methodology for PSS-planning by combining a process model with several methods from previous works. To evaluate its applicability, we conducted a case study from industrial practice and used the methodology for the planning phase of vehicles. The
product's complexity and organizational requirements were high enough for needing methodological support. The case study reveals the need for the methodology and its benefits in a real application.

Stichworte: product-service systems, decision-making, product planning, process framework, uncertainties

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· Einrichtungen > Fakultäten > Fakultät für Maschinenwesen > Institut für Mechatronik > Lehrstuhl für Produktentwicklung und Leichtbau (Prof. Zimmermann) > Konferenzbeiträge
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