Chapter 2
Hybrid Value Creation in the Sports Industry:
The Case of a Mobile Sports Companion as IT-Supported Product-Service-Bundle

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ABSTRACT
Integrated product-service packages (hybrid products) can open new markets and target groups to companies. However, existing approaches to service or product development do not sufficiently address simultaneous development and domain-specific issues. A very promising new field for such bundles is the health and fitness industry. In this research, we designed and built an IT-supported training system for running, the Mobile Sports Companion (MSC), which closely interlocks a product and corresponding services using an iterative development process. We tested the pilot system with 14 recreational athletes. The results of the field test show that the MSC proved to be a promising tool to offer athletes an effective individual, flexible, and mobile training. However, the system, as it is, did not sufficiently represent the human trainer behind it, thus lowering its acceptance and the credibility of its recommendations. Our next step is to integrate features that could strengthen the athlete-trainer relationship. The MSC could turn out to be a promising field for future e-business applications in the sports service industry.

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INTRODUCTION

Services account for a large part of the value added in manufactured goods in developed countries (Sheehan, 2006). Severe competition and cost pressures limit the growth of many companies across various industries, and, especially in the case of small and medium enterprises, threaten their existence. This has contributed to the expansion of the service economy over the last several decades. Integrated product-service packages (hybrid products) can enable innovative offerings and open new markets and target groups to companies (Organisation for Economic Co-operation and Development, 2006). However, companies mostly design services and products in separate processes, services being a mere add-on component to the product (Ernst, 2005). This separation can also be observed in the research literature. Many widespread process models focus on product construction, such as systems engineering (Daenzer, 1977), various Verein Deutscher Ingenieure (VDI) guidelines (e.g., VDI 2223) (Verein Deutscher Ingenieure, 2004), the Three-Tier-Model (Giapoulis, 1996), or software engineering, such as the Unified Software Development Process (Jacobson, Booch, & Rumbaugh, 1999) or eXtreme Programming (Beck, 2000). Alongside this extensive literature about product development, there is also a distinct literature describing new approaches to service development (see Bullinger & Scheer, 2003; Hermann, Krcmar, & Kleinbeck, 2005; Scheer & Spath, 2004), but they do not sufficiently address integrated, parallel development. Recent publications recognize this gap and present suggestions for integrated models (Spath & Demuß, 2006). However, the concept remains rather abstract and general. In addition, it does not consider domain-specific issues. In this research, we try to fill part of this gap while focusing on an example product development in the health and fitness market in Germany, a newly emerging and very promising field for innovative solutions like Computer Supported Collaborative Sports (Wulf, Moritz, Henneke, Al-Zubaidi, & Stevens, 2004).

Personal health and well-being gain more and more attention in today’s industrial societies. In Germany, the sports, fitness, and recreation market has a market volume of more than 50 billion Euros. With an annual growth rate of 6% (Deloitte & Touche, 2005), it is one of the booming markets in the health sector. The reasons for the rising attention are mainly twofold: For one thing, health awareness has increased throughout large parts of the population, being considered an important part of a modern lifestyle. Moreover, consequences of unhealthy personal lifestyles on the economy become more and more evident. Ailments as a consequence or complication of being overweight and/or a lack of physical activity, such as cardiovascular diseases, back problems, and diabetes, account for approximately one fifth of the present health costs of German health insurance companies (Scriba & Schwartz, 2004), heavily burdening health insurance companies and employers. Schwarzer (2004) summarizes the results of various studies showing the correlation between certain diseases and lack of exercise. They amount to economic costs of about 530 million Euros per year in Germany (von Lengerke & John, 2005).

In spite of these developments, the market for fitness and health service providers, such as gyms or equipment manufacturers, in Germany has been steadily declining over the past 5 years (for a detailed market analysis see Kamberovic, Meyer, & Orth, 2005). Cost pressure and competition threaten small providers especially; many are put out of the market by emerging large franchise chains. To regain competitive advantage, especially above low cost operators, they need to offer innovative products and services going beyond the mere provision of sports equipment and occasional supervision that are common today.

Personal training, that is individual supervision and support of each athlete by a trainer, could be a way of addressing both of the above-mentioned problems. On the one hand, personal training is
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