



Requirement negotiation process for the design of cooperative services

Kentaro Watanabe*, Koji Kimita, Yoshiki Shimomura

Department of System Design, Tokyo Metropolitan University, Asahigaoka 6-6, Hino-shi, Tokyo 191-0065, Japan

ARTICLE INFO

Article history:
Available online 24 April 2010

Keywords:
Service
Service design
Requirement
Requirement negotiation
Service Engineering

ABSTRACT

Many manufacturers are focusing more on services provided through products recently, and cooperate with some partner companies to provide competitive services. For the design of those services, it is important to satisfy not only service receivers, but also the cooperating service providers. The authors suggest a method to represent service provider's value and cost of a designed service based on the service design methods of Service Engineering. In addition, the authors suggest a method to adjust the specifications of a designed service in order to fulfil the requirements of both service providers and service receivers simultaneously.

© 2010 CIRP.

1. Introduction

Manufacturers have been focusing more on services provided through products than on products themselves in the recent years. Following this trend, many companies cooperate or strengthen the relationship with other companies to provide various and more competitive services. For the design of attractive cooperative services, it is important to satisfy not only service receivers, but also the cooperating service providers who have different senses of value for the contents and the supply method of their own service. However, there are few standard methods to represent service provider's requirements for its service and to design it to fulfil them.

Therefore, the authors suggest a method to represent service provider's value and cost of a designed service based on the service design methods of Service Engineering [1]. In addition, the authors suggest a method to adjust the specifications of a designed service in order to fulfil the requirements of both service providers and service receivers simultaneously from the aspects of their values and costs.

2. Cooperative services and related studies

2.1. Complexity of cooperative services

The importance of service has been increasing in the manufacturing industry. To provide a competitive service, various

collaborations among companies with different specialties have been promoted, such as the cooperation between a hardware company and a software company, or between a manufacturer and retailers. Unlike the hierarchical relationship which used to be common in the manufacturing industry, this new type of collaboration has the following characteristics.

- Equal partnership

In the aforementioned collaboration, the relationship among cooperating companies is relatively equal, since each company tends to have its own strength and not to have a strong binding power to each other. Therefore, a service designer should take the requirements of each company more into consideration.

- Multiple and interrelated requirements

For the design of a successful service, a service designer should grasp multiple requirements of each stakeholder and reflect them to a designed service. Furthermore, the requirements of stakeholders often interrelate and even conflict. A service designer should design a service to satisfy those requirements by prioritizing and adjusting them.

To overcome such complexity of cooperative services, the support for service design, especially for the requirement description and negotiation of a service, is necessary.

2.2. Related studies

Studies on service design and development started in the service marketing and management field first. There are various important researches on the process expression of services [2] and design processes [3]. Based on these fundamental studies, the studies on Product-Service Systems (PSS) have been attracting considerable attention. PSS is a specific type of value proposition

* Corresponding author. Tel.: +81 42 585 8425; fax: +81 42 585 8425.
E-mail addresses: watanabe-kentaro@sd.tmu.ac.jp (K. Watanabe),
kimita-kouji@sd.tmu.ac.jp (K. Kimita), yoshiki-shimomura@center.tmu.ac.jp
(Y. Shimomura).

Download English Version:

<https://daneshyari.com/en/article/1679695>

Download Persian Version:

<https://daneshyari.com/article/1679695>

[Daneshyari.com](https://daneshyari.com)