

A global machinery manufacturer learning service R&D: A longitudinal case study

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The objective of the paper

- Context:
 - infusion of services into manufacturing,
 - a lack of in-depth understanding of the service business,
 - management accounting: the ambitious objectives for service business are rarely attained. (Gebauer et al. 2005; Brax 2005)
- Objective of this paper is:
 - ***to explore the characteristics of the service R&D projects of a machinery manufacturer,***
 - ***to explain those characteristics.***
- Methodology:
 - a longitudinal case study (2001-2008),
 - three service R&D projects,
 - one project: members of the project team,
 - other two projects: extensive data collection.

The ambiguous service R&D

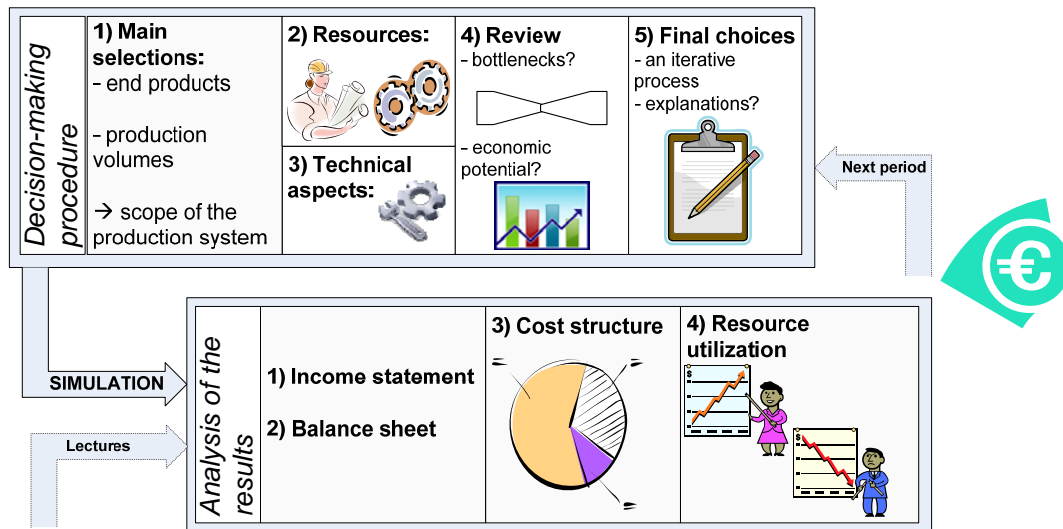
- **R&D continuum: basic research – product development:**
 - only a small fragment lead to commercial success.
- **Common characteristics of successful NPD projects:**
 - Up-front homework, superior product, customer value, cross-functional team, speed & quality and tough “go/kill” decisions.
(e.g., Cooper 1994,1999)
- **“The strange case of service R&D”** (Miles 2007; Djellal – Gallouj 2007).
 - The adoption of technologies vs. the informal non-technology part
 - Some NSD methods are adopted from manufacturing sector (Bowers 1989; Scheuing – Johnson 1989; Johnne – Storey 1998; Syson – Perks 2004).
 - New services “happen” rather than are formally developed? (Menor et al. 2002; de Jong – Vermeulen, 2003)
- ***What is the service R&D of the manufacturers all about?***

The longitudinal case study

- **The case company:**
 - global technology leader in its business area,
 - machinery and after sales (revenues ~40 %),
 - a peak in machinery sales,
 - “closer customer relationships”, “customer productivity”,
 - various expectations for service business.
- **The three service R&D projects:**
 - a business game concept (2005-2008),
 - extended warranty (2002-2008),
 - remote technologies (2003-2008).

Project A: A Business game concept

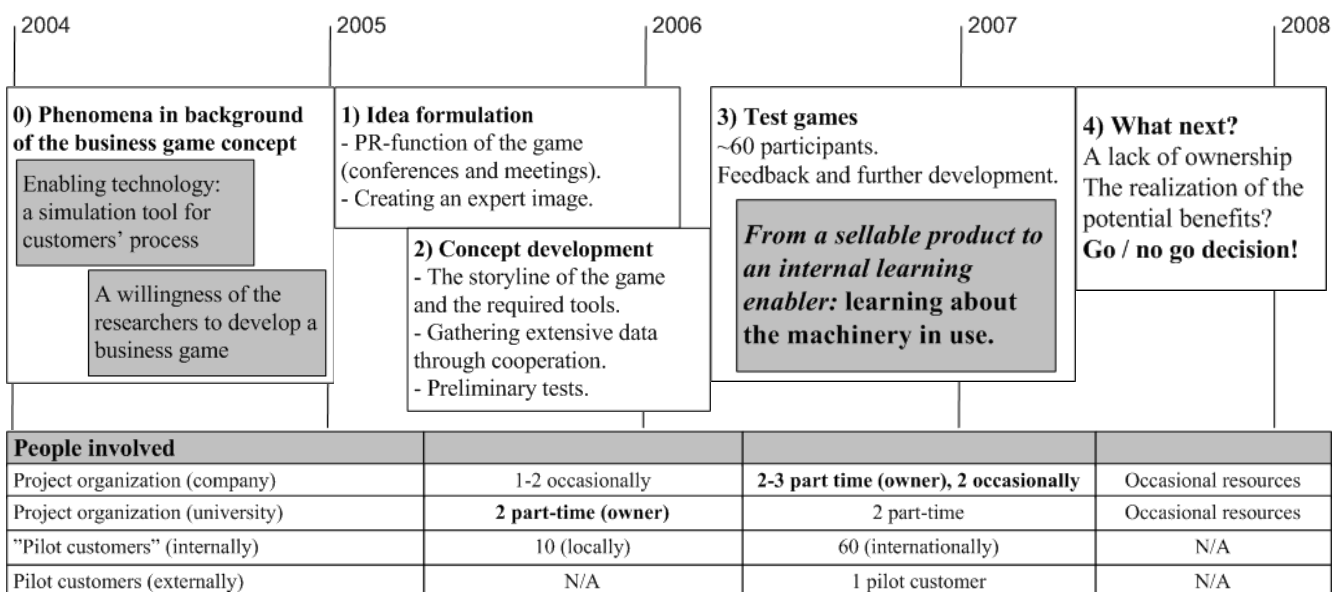
- simulating customers' production process and profitability



- The case company produces resources for the customers' process.
- The business game concept:
 - is a 1 to 2-day event including various elements,
 - enables learning from the customers' business.

Project A: A Business game concept

- simulating customers' production process and profitability



Findings from the projects

- **The present state of the projects:**
 - an internal learning opportunity recognized as a benefit,
 - “pilot” projects will still continue,
 - **the success can not yet be easily assessed.**

- **Common characteristics of the projects:**
 - focus on the machinery – but in use among the customers,
 - external/internal pressure, no customer order,
 - informal, long-lasting projects,
 - part-time, cross-functional resources,
 - dynamics in objectives, product contents and customers,
 - **a journey towards new capabilities.**

Potential explanations for the characteristics

1. **Relative newness of the topic:**
 - basic research in new areas of expertise,
 - dynamics in objectives, product contents and customers,
 - new immaterial outputs without underlying processes / resources available vs. streamlined processes for goods.

→ **Projects ~ learning tools with long-term benefits.**

2. **High demand for the machinery:**
 - new products are not necessarily needed,
 - no extra resources available,
 - “service R&D” is a secondary activity.

→ **The success of the projects should be compared to their objectives, resources, importance, low priority...**

Service characteristics as explaining factors?

- ***The task of defining service is far from complete*** (e.g., Djellal and Gallouj, Forthcoming).
 - The IHIP characteristics are complex and subjective by nature. (Lovelock and Gummesson, 2004, Edvardsson et al., 2005)
 - Service logic: intangibles, customers, value creation. (Vargo and Lusch, 2004)
 - Services are **activities** done for the customer, resulting in different forms of **outputs** (resources): e.g., goods, information, capital, energy, people and rights. (Laine et al. 2006)
 - **Service: business-as-usual?**

- ***Similar findings could be drawn from an R&D project aiming at completely new types of machinery:***
 - Relative newness seems to be the main explanation for the findings.
 - Projects aim at new products in this context with new characteristics.
 - **Service R&D of the manufacturers: R&D as usual?**