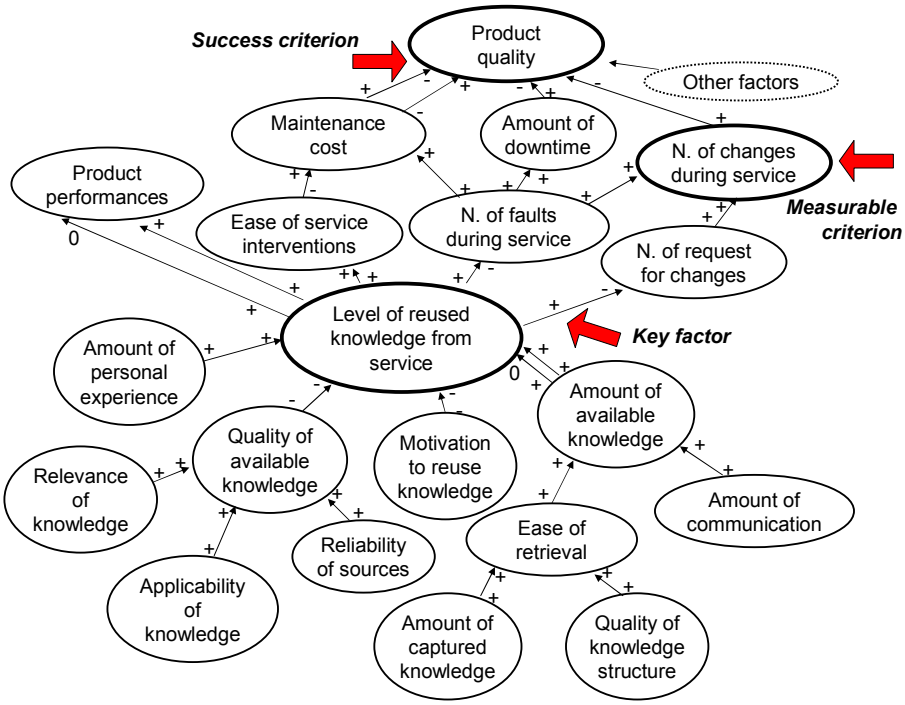
Understanding the Impact of the Service Phase of One-Off Machinery On Complex Engineering Design

Background



Research approach

Research clarification

1.Definition of project focus;

2.Literature study on relevant research fields.

Descriptive study

Understand knowledge management practices of the collaborating company through:

- analysis of information systems
- analysis of documentation from the service phase of machinery.
- interviews with designers, service engineers and positions in the units responsible for knowledge management and with users of the information systems, in particular: 1)Designers; 2)Service people

Prescriptive study

Analysis of the findings and proposal of methods and tools to efficiently capture and re-use service knowledge.

Descriptive study

Verification of the effectiveness of the proposed methods and tools.

Research Questions

Service knowledge:

- Which type of knowledge arises from the service phase?
- How this can be structured and fedback to support designers?
- How can experience from past service interventions be used by service engineers whilst performing their job?

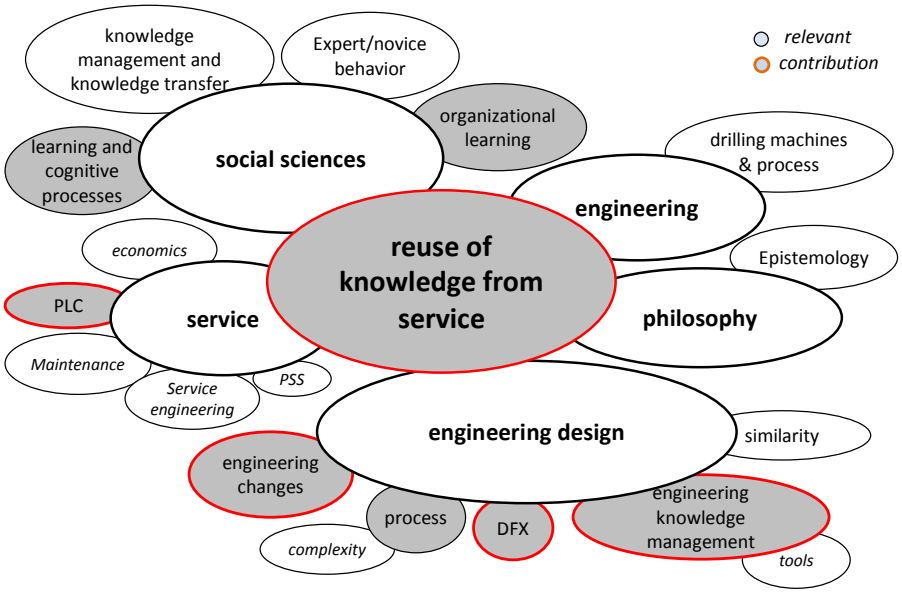
Design knowledge:

- Which knowledge of the design of machines can be useful for service engineers? how should it be structured?

Expected results

- **Descriptive study**: understanding which type of knowledge arises during the service phase of complex machinery, namely drilling equipment, and how this knowledge can be used to support both service engineers and designers while performing their job.
- **Prescriptive study**: suggestion of methods and tools to systematically transfer service knowledge both to service engineers and designers

Theoretical framework



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