Master

Flexibilität in Prozess-Modellen

Flexibility in Process Models

Motivation

We live in a constantly changing and interconnected world. A lockdown in an asian city, changing fuel prices, a cargo ship stuck in a high-traffic channel or the lack of qualified employees can lead to disruptions in established processes. The key mechanism to cope with those disruptions is flexibility. Especially we want to look at processes that provide services or create products. These processes can, for example, be modeled in BPMN or UML Activity Diagrams. We want to explore what types of flexibility exist by creating a taxonomy of flexibility and flexibility increasing methods. Then we want to know the applicability, the implementation and the consequences of flexibility increasing methods. At the end, we want to create a system that suggests flexibility increasing methods for a given process model.

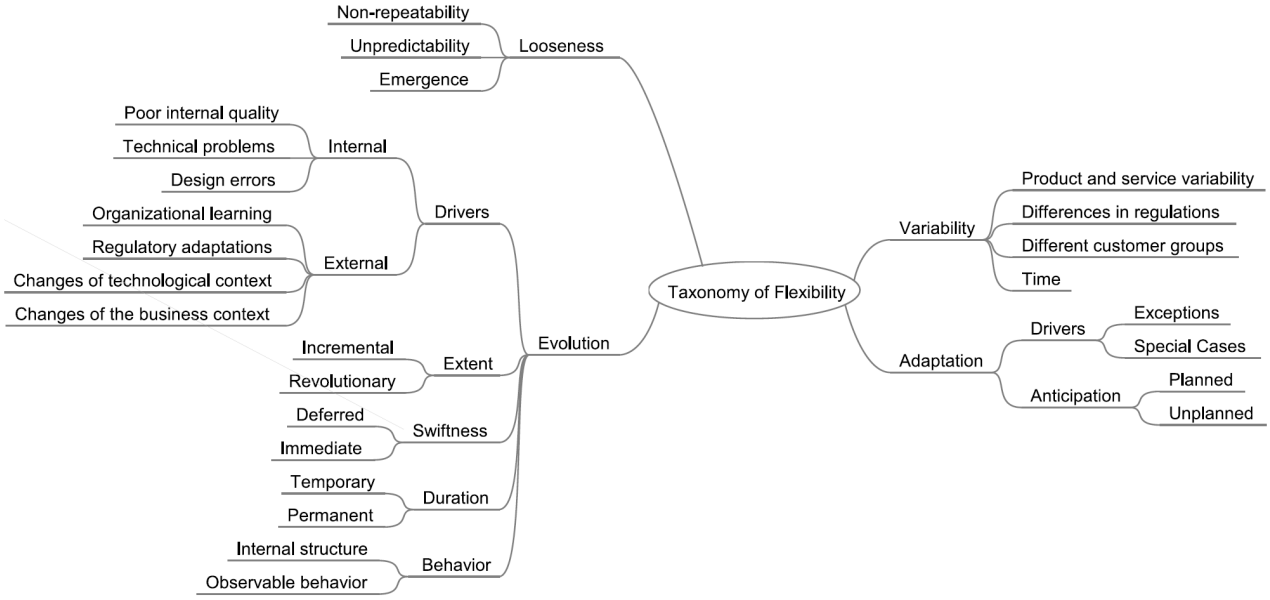

Abbildung 1: A taxonomy of flexibility need by [RW12]

Tasks/Goals

The tasks that must be supported in this thesis are listed in what follows:

- Analyze the state-of-the-art flexibility and flexibility increasing mechanisms in process modeling.
- Create a taxonomy of flexibility and flexibility increasing mechanisms.
- Define the applicability, the implementation and the consequences of the flexibility increasing mechanisms.
- Create a method to select flexibility increasing mechanisms for a given process model.
- Demonstrate the usefulness of your method on real world examples.

Remarks

The opportunity to cooperate in writing research paper after the successful submission of the thesis will be provided.

Organizational

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Literatur

[RW12] Manfred Reichert and Barbara Weber. *Enabling Flexibility in Process-Aware Information Systems: Challenges, Methods, Technologies*. 10 2012.