Forschungsinstitut –
Unternehmensführung, Logistik und Produktion
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Master thesis

Data-Driven Product Design as a Service

Topic Question:	What Startups do employ Data-Driven Product Design or offer it themselves?
Start:	Possible as of now
Application:	Short application with curriculum vitae and transcript of records to dominic.schober@tum.de

Initial situation and problem definition

Companies are facing ever greater challenges when designing their products due to rapid technological change and evolving customer needs. Products must meet a wide range of needs, as customers worldwide require products for various markets. At the same time, product life cycles are getting shorter, and sustainability is becoming increasingly important. Companies must therefore focus on designing and developing their products. In today's business world, companies have access to a wealth of data sources that often remain unused. Product design is no exception to this trend. Future products will require greater interaction between users, products, and manufacturers. Designers must use data to identify and respond to customer needs.

Practitioners are increasingly recognizing the potential of Data-Driven Product Design for creating new products and systems. Data Driven Design use cases currently mostly rely on existing data sources such as online reviews, databases, or social media. The research field is at an early stage. The term 'Data Driven Product Design' (DDPD) is used to describe the use of data during the product design process. Most of the research on DDPD has only emerged in recent years and is emphasizing the challenges of DDPD. The main issue identified is a lack of concrete knowledge on how to implement and make use of DDPD.

To date, it remains unclear how companies offer DDPD as a service in a B2B context. While case studies have investigated DDPD implementations and the challenges associated with DDPD, it is not known what companies purchase when they want to employ DDPD. This thesis will address this knowledge gap by examining the services offered by start-ups to support DDPD within companies.

Thesis parts

- **Familiarization with the literature on Data-Driven Product Design**
- **Developing and conducting search on startups offering Data-Driven Product Design (e.g. Crunchbase)**
- **Systematic analysis of the qualitative data, e.g., using open coding**

General

Own topics and external works on Data-Driven Product Design are by arrangement also possible. It is possible to start immediately. A timely execution is encouraged.

Contact:

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