

Value of Digital in Field Service

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1. Introduction and Literature Review

Introduction

The field and customer service working environments have changed significantly over the past years. The pandemic and resulting problems, such as travel limitations and material shortages, forced companies to rethink and adapt their services. In addition, digitalisation has changed how we can interact with customers and connect with the experts in the back office. Customers now expect more personalised and quick digital service solutions. With all happening online and remotely, the company's agents may be the sole face of a company for its customers. Therefore, companies' Field Services cannot stay behind and investment in digital technologies is becoming key to success.

Objectives

1. Collect technologies used in the field.
2. Explain their impact on service delivery and customer satisfaction.
3. Assess the use cases with developed assessment criteria from the found knowledge.
4. Determine the most promising technologies and how they could evolve in the future.

Research question

How are firms in the service industry currently leveraging digital technologies to support field services, and what are the key factors driving the adoption of digital technologies in the field service industry?

Literature Review

Servitisation – is a business strategy that involves the shifting of product-centric business models and logic to a service-centric approach.

Field Service – involves the deployment of technicians to customer sites to perform a range of services, including installation, maintenance, and repair of products. The goal of field service is to ensure that products are operating at peak performance, minimise downtime, and maximise customer satisfaction.

Collaborative Networks – a grouping of different entities (such as businesses and people) that work together to achieve shared or compatible objectives more effectively despite being largely autonomous

Value (Co-)Creation – the active collaboration of stakeholders such as customers, suppliers, and service providers to generate mutual value by sharing resources, knowledge, and expertise.

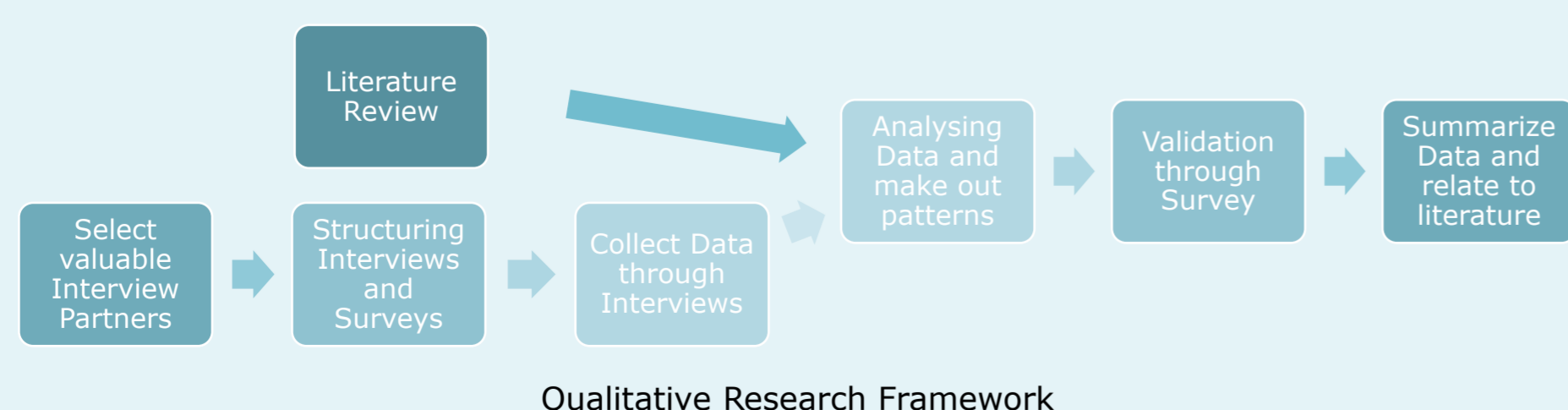
2. Methodology

Research Framework

To investigate the various research objectives, the data collection method is semi-structured in-depth interviews to get insights into the environment of field service technicians. Experts and technology providers are interviewed, as well as firms offering field service operations. For the analysis method, coding of the conducted interviews and blueprinting of the services are carried out. Based on the results, service journeys are illustrated in storyboards as an extract from a blueprint mapping, which helps to understand the activities and the value co-creation process.

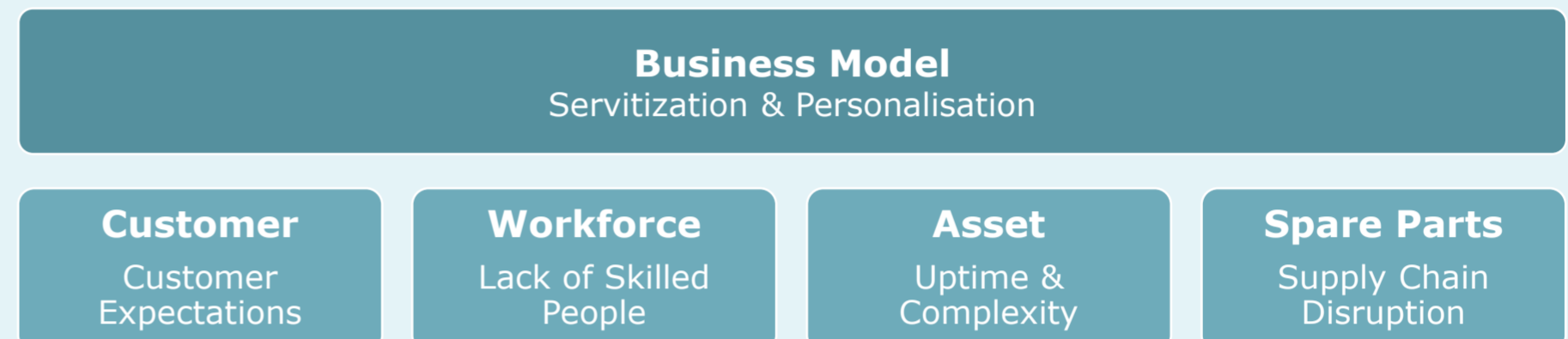
Implementation

- Development of interview questions
- Conduct Expert and Provider Interviews
- Descript.ai for transcription
- Iterative open coding for analysis



3. Results and Discussion

Leveraging Technology in the 5 Main Problem

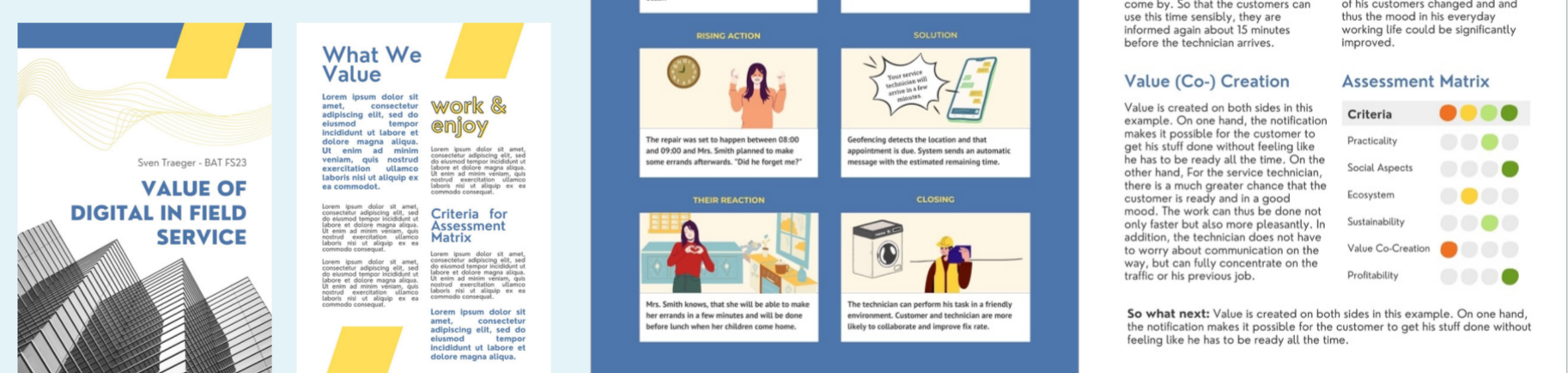


Key Factors for the Adoption of Digital Technologies

- Operational efficiency (and sustainability)
- Increasing customer expectations
- Responsiveness to the changing business environment
- Remote work (and contact limitations)
- Competitive advantage
- Workforce management and skill development
- Increasingly complex processes
- Generational change in the workforce
- Sustainability Improvements

Assessment & Story Boarding to convey the Value Creation

- Practicality
- Profitability
- Value Co-Creation
- Ecosystem
- Sustainability
- Social Aspects



4. Conclusions and Recommendations

Conclusions - The emerged information from the interviews can be attributed to the main theme of "cooperation". Considering the complexity of the field service environment, this is not surprising. Also, collaboration allows companies and customers to create real value on both sides. Other key findings are that ...

... involvement of multiple actors in the field service journey makes it difficult to ensure a seamless value co-creation process.

... value co-destruction can also easily occur in this complex environment.

... adoption of new technologies and processes depends on a multitude of factors.

Outlook - The research will be expanded further by analysing other technologies and use cases and creating a handbook to assist firms in selecting the appropriate technologies for their field service operations

References

West S, Gaiardelli P, Rapaccini M (2018) Exploring technology-driven service innovation in manufacturing firms through the lens of Service Dominant logic

Vössing M, Kunze von Bischhoffshausen J (2018) Field Service Technician Management 4.0. In: Fink A, Fügenschuh A, Geiger MJ (eds) Operations Research Proceedings 2016. Springer International Publishing, Cham, pp 63–68

Skourtis G, Décaudin J-M, Ioannis A (2016) Service Failures as Value Co-destruction Moments. In: Obal MW, Krey N, Bushardt C (eds) Let's Get Engaged! Crossing the Threshold of Marketing's Engagement Era. Springer International Publishing, Cham, pp 565–565