Caverion

Enhancing service quality and productivity in maintenance service by improving scheduling – a case study

Master's thesis presentation, EuroMaintenance 2016

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31.5.2016

Revenue

2,4

bill. EUR in 2015

STRONG market position in all essential countries

12

Countries, Headquarters in Helsinki

~280

locations near clients

17 400

employees

30 000 spaces serviced

5 700

service cars

~30 600

shareholders at the end of 2015

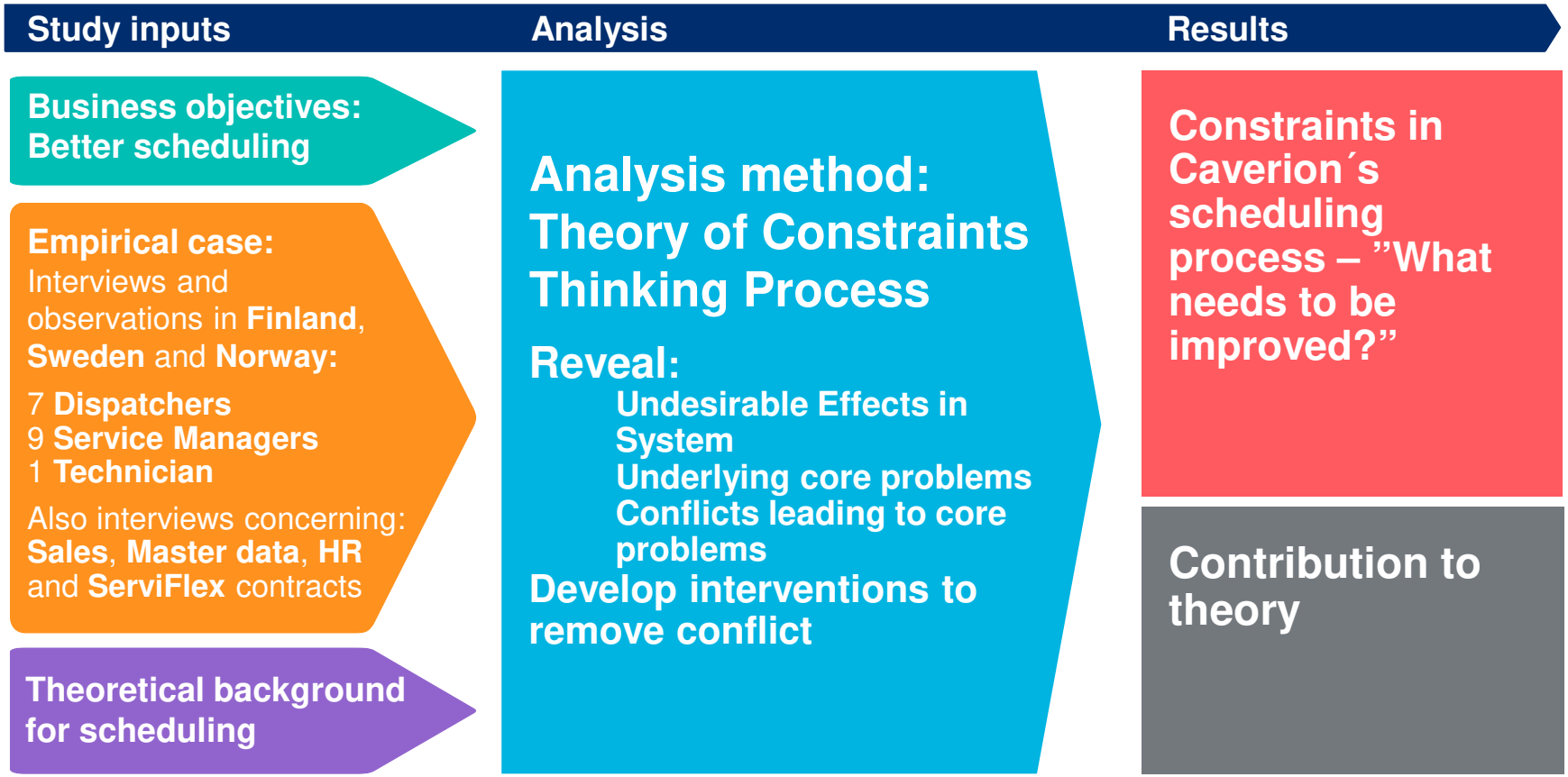
The objectives for the Master's thesis

- Enhancing service quality and productivity by improving work scheduling in field service maintenance

- **RQ1**: What are the elements of an effective field service scheduling system and how scheduling effects to service quality?
- **RQ2**: Why scheduling is currently not effective in case organization?
- **RQ3**: What changes should be made to enhance the scheduling system and, thus, service quality in case organization?

Research Approach

Qualitative Case Research

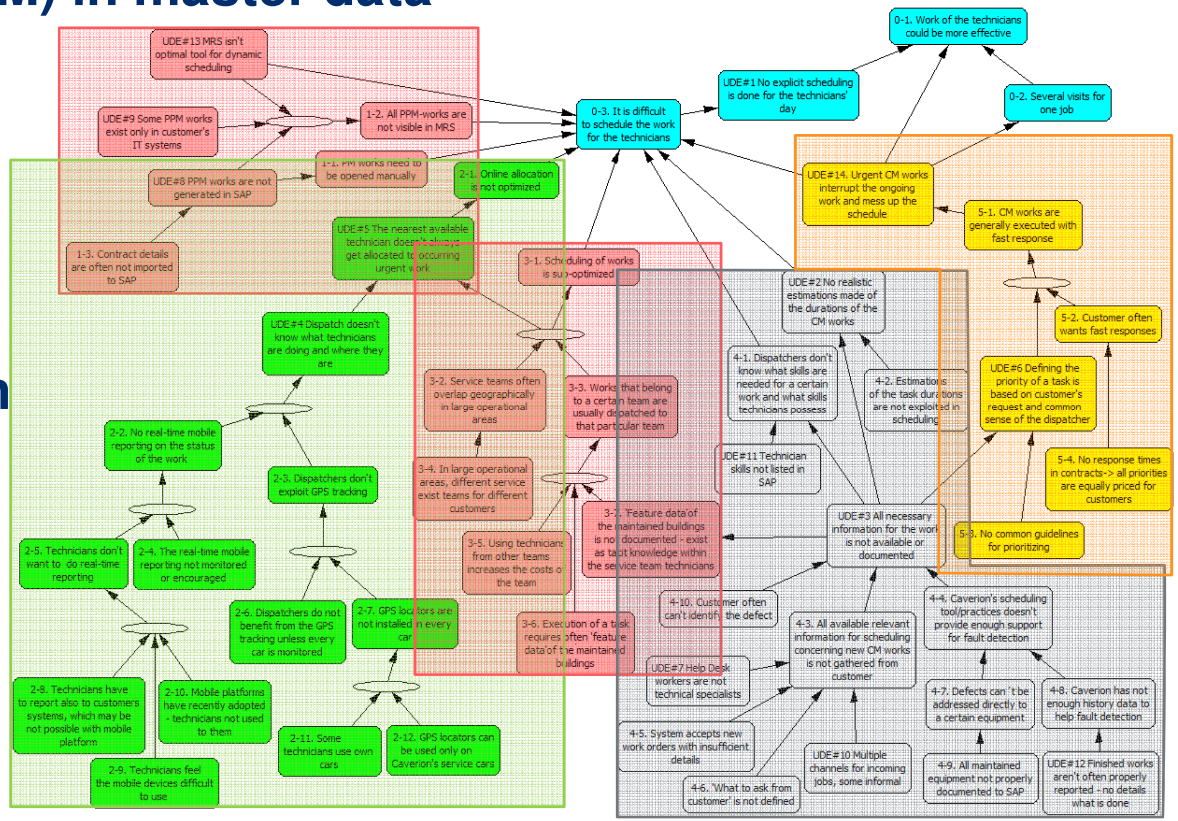



Thinking process
analysis

Current Reality Tree

1. Planned Preventive Maintenance (PPM) in master data

2. Online allocation of new occuring tasks

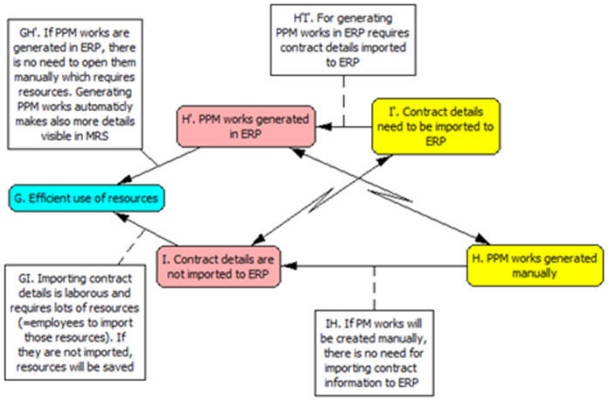


3. Service team composition

4. Inadequate task information

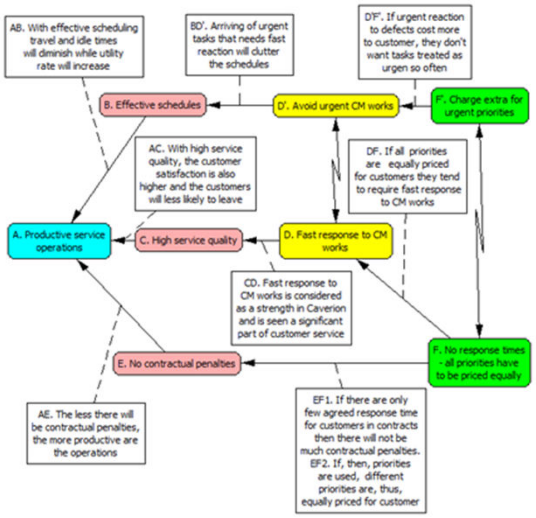
5. Prioritizing

Revealed conflicts



Planned Preventive Maintenance (PPM) maintained manually

- **Core problem**: PPM works not maintained in ERP - PPM Work Orders are generated manually
- **Conflict**: resorce based - importing all PPM to SAP is laborous vs. opening every task manually is laborous.



Prioritizing of the work

- **Core problem**: No defined guidelines for prioritizing in use – Currently prioritizing based mostly on common sense, experience and customer requests
- **Conflicts**: 1) To react fast for new occurring Ad-Hoc tasks fast vs. provide reliable schedules for technicians. 2) No response times for customers vs. customers request fast responses

Other issues found difficulting the scheduling

- Scheduling tool not enabling dynamic rescheduling
- Technician skills, competences and experience not documented and available for scheduling and dispatching
- The level of reporting of finished works is insufficient – difficult to exploit history data in scheduling process
- Part of the PPM works exist only in Customers' IT-systems – not possible to schedule if all scheduled tasks are not known
- No visibility on the technicians current location and status of work → impossibe to follow up schedules and rescheduling is difficult
- Inadequate task information on the CM works
- Strict allocation boundaries lead to optimizing small service teams instead of larger entities


Life Cycle Solutions for
Buildings and Industries