LTAT.05.025
Business Process Management

Practice 2
Process Performance Measurement & Dashboards

Marlon Dumas

UNIVERSITY OF TARTU
INSTITUTE OF COMPUTER SCIENCE

Warm up question

- Mark and Mike handle customer complaints and requests for refunds for an online shop tha sells electronics, digital and home appliances online.
- The company serves on average 2000 customer orders per week.
- About 10% of these orders lead to a complaint or refund request.
- Each complaint/refund request requires 20 mins of Mark's or Mike's time.
- Mark and Mike work normal business hours. They need to spend about 1 hour per day on other duties/tasks.
- What is their current resource utilization?
- What would the resource utilization be if the company hired a third customer service rep?

Exercise 1 (Little's Law)

A fast-food restaurant receives on average 1200 customers per day (between 10:00 and 22:00). During peak times (12:00-15:00 and 18:00-21:00), the restaurant receives around 900 customers in total, and 90 customers can be found in the restaurant (on average) at a given point in time. At non-peak times, the restaurant receives 300 customers in total, and 30 customers can be found in the restaurant (on average) at a given point in time.

1. What is the average time that a customer spends in the restaurant during peak times?
2. What is the average time that a customer spends in the restaurant during non-peak times?

Exercise (cont.)

3. The restaurant plans to launch a marketing campaign to attract more customers. However, the restaurant's capacity is limited and becomes too full during peak times. What can the restaurant do to address this issue without investing in extending its building?

Exercise 2 – Measures & Dashboards

Consider the pharmacy prescription process we analyzed in Practice #1:

- https://courses.cs.ut.ee/MTAT.03.231/2021_spring/uploads/Main/Practice1-2.pdf

1. Identify 8-12 performance measures for this process covering time, cost, quality, demand & workload
2. Sketch an operational and a tactical process monitoring dashboards for this process.

Consider the viewpoints of each stakeholder in the process.

- Pharmacist: wants to ensure that the pharmacy service runs smoothly, that customers receive the correct prescriptions, safely and in compliance with the law.
- Technician: wants to avoid stress at work, wants to see happy faces in the customers and not get into conflicts with anyone
- Process owner: oversees dozens of pharmacies distributed geographically. Wants to know how to improve their performance, particularly with respect to customer service, but without increasing costs.