Fotof's booking-to-cash process redesign📸

🤔Problem Statement

In our BPMN course project, we were tasked with redesigning the process for Fotof, a photo studio. The studio faced several inefficiencies in their "booking-to-cash" process, including *high order cancellations*, *mishandling of orders*, and a *high volume* of customer inquiries. The initial Total Cycle Time (TCT) for processing an order was approximately **3.22** hours. Our goal was to *streamline* this process to *improve* efficiency and customer satisfaction.

🚀Redesign

1. Process Mapping and Analysis:
   - Session: The process began with booking and entering customer details. We *identified* that *no-shows* and *cancellations* were significant issues, resulting in *lost* potential sales.
   - Post-Production: The photo editing process was complex and time-consuming, contributing heavily to the *total cycle time*.
   - Delivery: Generating invoices and handling payments were manual tasks that added to the *overall process time*.

2. Quantitative Analysis:
   - Current State Analysis: We performed a *flow analysis* to measure the Total Cycle Time (TCT) of 3.22 hours per order.
   - Future State Analysis: By implementing improvements, we aimed to *reduce* the TCT to approximately **2.58** hours per order, a **19.79%** decrease.

3. Process Redesign Using BPMN:
   - Booking and Session Management: *Automated* booking confirmations and reminders to reduce no-shows and cancellations. Introduced a charge for no-shows to mitigate revenue loss.
   - Post-Production: Streamlined the editing process by defining *clear guidelines* and reducing unnecessary steps, thereby decreasing the editing time.
   - Delivery: *Automated* the *invoicing* process and integrated card payments on-site to expedite payment collection.

4. Queue Management:
   - Using queuing theory, we analyzed the arrival and service rates. The initial traffic intensity was high at **0.92**, indicating *over-utilization*.
   - Post-redesign, the traffic intensity was reduced to **0.74**, showing improved system stability and efficiency.

5. Automation with Camunda:
   - Developed a BPMN model using Camunda to *automate* and monitor tasks. This allowed for *better tracking* and management of the entire process.

   - Proposed integration with ERP systems and corporate MS Outlook for seamless communication and coordination.

The redesigned process potentially improves Fotof's operations:
- Session: *Reduction of* no-shows and cancellations through automated reminders and penalty charges.
- Post-Production: Reduction of editing time and streamlined the workflow, enhancing overall efficiency.
- Delivery: Automated invoicing and payment processes to speed up the final delivery stage.

💪 Impact

Numerical Impact:
  - Decreased Total Cycle Time by approximately **19.79**%, from 3.22 hours to 2.58 hours per order.
  - Improved order processing capacity from **2.48** orders per day to **3.1** orders per day per studio.
  - Reduced traffic intensity from **0.92** to **0.74**, indicating a more stable and efficient queue management system.

Expected Qualitative Impact:
  - *Enhanced* customer satisfaction due to *reliable* scheduling and *faster* delivery times.
  - *Improved* operational efficiency and *reduced* staff workload, allowing for better focus on quality and customer service.
  - *Streamlined* communication and task management through Camunda integration, leading to fewer errors and better overall process management.

⚙️ Tooling

- Camunda: Used for developing an executable BPMN model to *automate* and *monitor* tasks.
- Apromore: process analysis and quein theory.

By implementing these process improvements, our team successfully demonstrated the potential for increased efficiency, reduced costs, and enhanced customer satisfaction at Fotof. This project showcased our ability to break down a complex problem, apply BPMN principles, and achieve measurable improvements.

Canva presentation can be accessed by the link.