Capstone Project: Applying Business Analysis Skills

Case Study: Enhancing Operational Efficiency in a Multi-Specialty Hospital

Stakeholder Profiles

1. Patients

Profile 1: Sarah Ayvazyan (Age: 35, Software Engineer)

- Feedback on scheduling:
    - Difficulty booking appointments online, often needs to call the hospital directly.
    - Appointments are canceled without timely notifications.
- Wait times:
    - Frequently waits over 30 minutes past her appointment time.
    - Frustrated with the lack of updates during delays.
- Communication issues:
    - Limited information was provided about her next steps after the consultation.
    - Prefers clear instructions sent via email or SMS.

Profile 2: Lak Ayer (Age: 62, Retired Teacher)

- Feedback on scheduling:
    - Finds the online scheduling system confusing and prefers in-person scheduling.
- Wait times:
    - Recently waited nearly an hour for a cardiology consultation, leading to dissatisfaction.
- Communication issues:
    - Difficulty reaching the support desk for follow-up questions about prescriptions.

2. Doctors

Profile 1: Dr. Aftab Khan (Specialization: Cardiology)

- Resource allocation:
    - Overbooked schedules leave insufficient time for patient consultations.
    - Often lacks access to required diagnostic equipment during peak hours.
- Inter-departmental communication:
    - Delays in receiving test results from the lab, impacting patient care.
    - Inefficient handoff process when transferring patients to other departments.

Profile 2: Dr. Robert Lee (Specialization: Orthopedics)

- Resource allocation:
    - Experiences frequent delays in accessing operating rooms due to overbooking.
    - Limited availability of specialized equipment like orthopedic drills during peak hours.
- Inter-departmental communication:

- o Rarely receives timely updates from physiotherapy regarding patient progress, impacting follow-up consultations.
- o Finds the referral system cumbersome, often leading to confusion for both staff and patients.

3. Nurses

Profile 1: Santa Murmu (Role: Pediatric Nurse)

- Resource allocation:
  - o Struggles with an uneven nurse-to-patient ratio during night shifts.
  - o Limited availability of essential supplies like gloves and syringes.
- Inter-departmental communication:
  - o Poor coordination with the emergency department for patient intake.
  - o Rarely receives advance notifications about patient transfers.

Profile 2: Jessica Gomes (Role: Emergency Room Nurse)

- Resource allocation:
  - o Faces challenges during shift overlaps when resources (e.g., beds, monitors) are in high demand.
  - o Inadequate staffing during weekends, leading to burnout and reduced efficiency.
- Inter-departmental communication:
  - o Reports delays in receiving diagnostic results from radiology, which impacts patient triage decisions.
  - o Encountered frequent miscommunication during patient transfers to the ICU, causing duplication of efforts.

4. Administrative Staff

Profile 1: Maria Carter (Role: Appointment Scheduler)

- Challenges in scheduling:
  - o Frequently deals with double bookings due to system glitches.
  - o Limited visibility into doctors' real-time availability, leading to scheduling conflicts.
- Record management:
  - o Finds the current patient record system outdated and difficult to navigate.
  - o Experiences delays in retrieving patient histories during busy hours.

Profile 2: Ivan Walker (Role: Billing Administrator)

- Challenges in scheduling:
  - o Often receives complaints from patients about billing discrepancies due to incomplete scheduling information.
- Record management:
  - o Struggles with reconciling billing records with treatment data from various departments.

5. IT Teams

Profile 1: Rajesh Singh (Role: IT Manager)

- Technical limitations:
    - Current scheduling and record management systems are not integrated, leading to data silos.
    - The hospital network experiences frequent downtimes, impacting online services.
- Potential enhancements:
    - Proposes integrating an advanced Hospital Information System (HIS) for seamless data flow.
    - Recommends implementing a cloud-based appointment system for scalability.

Profile 2: Laura Simkow (Role: Software Developer)

- Technical limitations:
    - The online appointment system lacks user-friendly interfaces, causing user complaints.
    - Security vulnerabilities in the legacy systems need urgent attention.
- Potential enhancements:
    - Suggests adding real-time notifications via email/SMS for appointment updates.
    - Advocates for data analytics tools to monitor patient trends and resource usage.