

SYNOPSIS

1. TITLE:

Operational Insights and Product Testing in a Healthcare Tech Startup

2. INTRODUCTION:

With the rise in healthcare digitization, queue management and operational optimization are becoming essential for improved patient experience. LivingNeeds Healthcare Pvt. Ltd., a health-tech startup, is developing a software-based token management and queue tracking system to streamline OPD flows and improve hospital efficiency. This study aims to explore the operational challenges in a health-tech startup and contribute to the product development through software testing and real-time client feedback.

3. RESEARCH QUESTION:

How can a health-tech startup optimize its operational efficiency and enhance its product usability through continuous testing and client collaboration?

4. OBJECTIVES:

- To understand the operational workflow of a healthcare tech startup.
- To test and evaluate the newly developed queue management software.
- To assist in product improvement through UI/UX feedback.
- To explore collaboration opportunities with hospitals and healthcare providers.

5. HYPOTHESIS: Operational involvement and systematic testing significantly improve the usability and market readiness of healthcare software developed by startups.

6. MATERIAL AND METHODS:

- **Study Design:** Descriptive and exploratory design
- **Setting:** LivingNeeds Healthcare Pvt. Ltd., Jodhpur, Rajasthan
- **Study Population:** Operational and development team members, early user clients (hospitals, clinics)
- **Inclusion Criteria:** Stakeholders involved in testing and feedback cycle
- **Exclusion Criteria:** Departments unrelated to software development/operations
- **Study Tools:** Observation checklist, feedback forms, internal bug report trackers, email communications
- **Duration of Study:** 10th March 2025 to 10th June 2025
- **Sample Size:** Not applicable (qualitative operational study)
- **Sampling Technique:** Purposive sampling of internal testers and pilot clients
- **Data Collection Procedure:** Observational notes, testing records, weekly reporting, documentation of changes suggested and implemented
- **Operational Definitions:**
 - **Operational efficiency:** Speed, accuracy, and workflow integration of product
 - **Usability:** End-user friendliness and client satisfaction with the software interface

7. DATA ANALYSIS PLAN: Descriptive analysis of feedback points using Microsoft Excel. Categorization of issues into UI, functionality, and client satisfaction. Thematic analysis of qualitative responses.

8. ETHICAL CONSIDERATIONS: No patient data involved. Informed consent taken from internal stakeholders and external users for participation in the feedback process. All data kept confidential and used solely for research and improvement purposes.

9. IMPLICATIONS OF RESEARCH: This study will support the enhancement of a health-tech product catering to healthcare institutions, thereby improving service delivery. The findings can guide other startups aiming to build efficient healthcare software products.

10. REFERENCES:

1. World Health Organization. Digital Health Interventions [Internet]. WHO; 2021.
2. Agarwal R et al. Adoption of Electronic Health Records: A Review. Health Informatics J. 2020;26(3):1815-1828.
3. IIHMR University. Internship and Dissertation Guidelines 2025.